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Limits of Coolability in the AP1000-Related ULPU-2400 Configuration V Facility

(Appendixes)

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APPENDIX
To the Report CRSS-03/06

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by

T-N. Dinh, J-P. Tu, T. Salmassi, T.G. Theofanous

Appendix A. Instrumentation in ULPU-V experiments

This Appendix provides detailed information about instrumentation schemes used in ULPU-V experiments needed to examine detail data given in Appendix C for each run.

Wall temperature measurement

Table A.A.1. Thermocouples name and location (blocks A, B, and C correspond to the lower, middle, and upper heaters section).

Block A	Left side TC	LA1	LA2	LA3	LA4	LA5	LA6	LA7	LA8
	Right side TC	RA1	RA2	RA3	RA4	RA5	RA6	RA7	RA8
	Angular position	1.7	6.1	9.6	14.8	18.2	20.8	24.3	26.9
Block B	Left side TC	LB1	LB2	LB3	LB4	LB5	LB6	LB7	LB8
	Right side TC	RB1	RB2	RB3	RB4	RB5	RB6	RB7	RB8
	Angular position	29.5	33.9	37.3	42.6	46.0	49.5	52.1	55.6
Block C	Left side TC	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8
	Right side TC	RC1	RC2	RC3	RC4	RC5	RC6	RC7	RC8
	Angular position	58.2	62.5	66.9	71.2	73.8	77.3	79.9	82.5

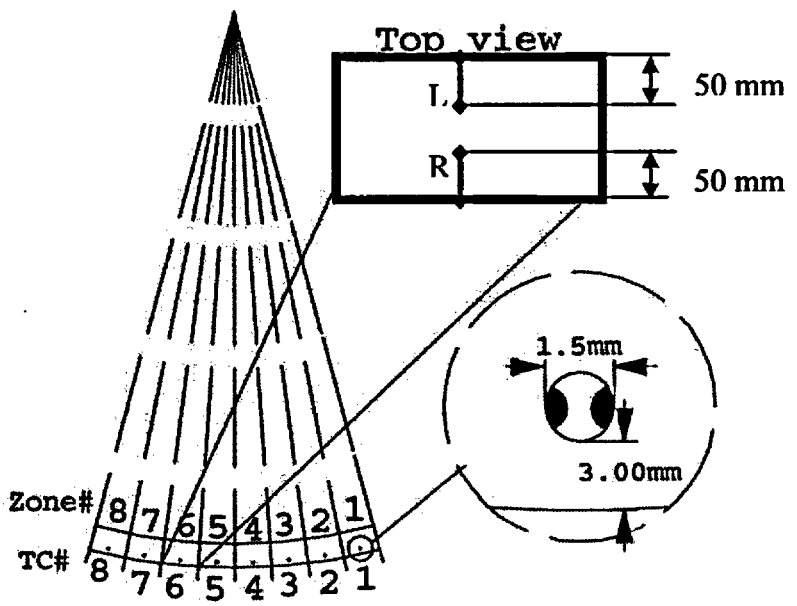

Figure A.A.1. Thermocouples positions.

Coolant temperature and pressure measurement

Figure A.A.2 depicts three schemes (A, B and C) for positioning of thermocouples PW1... PW7 and pressure transducers P1 ... P7. In schemes A and B, transducers at positions P1 and P7 measure the local pressure, while P2 ... P6 measure differential pressures P12... P56 respectively. Local pressures shown in Appendix C for each test run were deduced from the base pressure P1 and measured differential pressure data. In scheme C, pressure transducers in all positions P1 through P7 measure local pressure relative to ambient (atmospheric). It turns out that scheme "C" is best for matching signals to transducer diaphragm range.

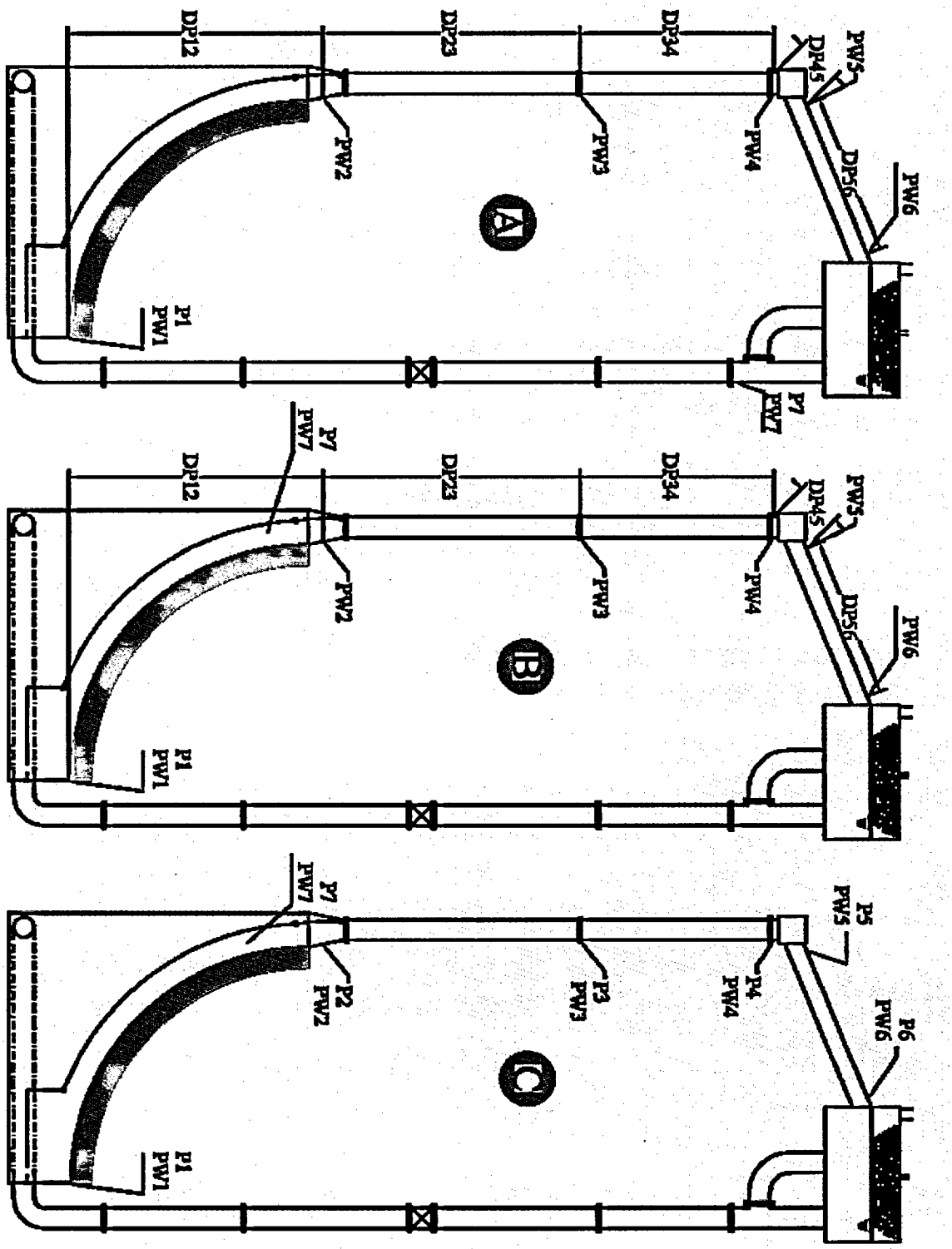

Figure A.A.2 Three schemes for positioning of water temperature (thermocouples PW1...PW7) and pressure (transducers P1... P7) measurements.

Appendix B: Data representation and particulars

In Appendix C, experimental data from all 36 test runs in ULPU-V are given in order according to run identification number, A01 to A36 for runs ID#1 to ID#36, respectively. With exception for several runs where particular instruments or their data acquisition were disabled, complete data set is reported for each run. A complete data set (i.e. run #1) includes

- Figure Axx.1. Power shape. Heat flux distribution used in run #xx.

- Figure Axx.2. Total input power history. Any power-off periods are also indicated in these data (#18). Flow rate, temperature and pressure data are provided for the whole run, that includes power-off periods. Thus, flow, temperature and pressure transients are also reflected in these data.

- Figure Axx.3. Heat flux history. This figure shows the heat flux history at the position of maximum.

- Figure Axx.4. Flow rates vs. maximum heat fluxes. The flow rate values are time-averaged for time duration (up to 100 s) during a quasi steady state in each power level.

- Figure Axx.5. Flow rates vs. total input power. The flow rate values are time-averaged for time duration (up to 100 s) during a quasi steady state in each power level.

- Figure Axx.6. Flow rates at different heat fluxes. Original flow rate data are given for the whole duration of a run.

- Figure Axx.7. Flow rates at different heat fluxes and selected time intervals. Detail view of original flow rate data. The flow rate oscillates around an average value. This behavior of data is consistent with visual observations of fluctuations of motion of particles present in downcomer flow (approximate particle velocimetry). Such fluctuations in flow rate reflect an inherently unsteady nature of natural circulation in ULPU. Note the very high sensitivity of the electromagnetic flowmeter used in ULPU-V experiments.

- Figure Axx8-Axx.10. Original data from heater block thermocouples.

- Figure Axx.11-Axx.12. Pressure transducer data at a specified power level (identified by value of maximum heat flux in the caption). The data presented in these figures are original data for runs using scheme "C" (Figure A.A.2) or deduced from differential pressure data for runs using schemes "A" and "B" (Figure A.A.2).

- Figure Axx.13. Fast Fourier Transform (FFT) of pressure time series during quasi steady states of up to 100 s durations. Since the pressure data were recorded with 10 Hz, FFT cut-off is at 5 Hz. Higher frequency behavior is not expected in ULPU-V.

- Figure Axx.14. Saturation water temperature calculated from local pressure over a time segment at the maximum heat flux indicated in the caption. Given water temperature in the system is 100 °C, i.e. saturated at atmospheric pressure, the data given in this figure indicates subcooling at locations where pressure was measured.

- Figure Axx.15. Water temperature measurement at locations given by PW1... PW7 in Figure A.A.2.

- Figure Axx.16. Pressure drop vs flow rate. Each set of points is for a power level that can be found by reference to Figure Axx.04. Pressure drops and flow rates used in this figure are time-averaged for duration of quasi steady state. DP12... DP56 are differential pressures between locations 1 and 2 (for DP12) and 5 and 6 (for DP56), respectively.

  Note in runs #18, #19, #27, #31, #32, #33, and #35 the same run ID continued after a power was temporarily turned off e.g. due to burnout. A separate graph is used to represent data for time duration that included such power on-off events. No value of maximum heat flux is specified in the respective graph because it involves more than one power levels.

- Figures Axx.17...Axx.21. Differential pressures at different heat fluxes (power levels). The data shown in these figures were obtained by slide-averaging over 5 seconds in runs using schemes "A" and "B". The purpose of averaging is to enhance readability of original pressure data, which contain significant fluctuations. For runs using schemes "C", the differential pressures shown in these figures were obtained by subtraction of pressure data shown in Figures Axx.22...Axx.28 and explained below.

- Figures Axx.22...Axx.28. Pressure data (P1 ... P7) shown in these figures were obtained by slide-averaging over 5 second periods for runs using scheme "C". For runs using schemes "A" and "B", pressure data given in these figures are deduced from pressure data shown in Figure Axx.11.

Test runs in the M63 series (#5, #6, #10) lasted for six hours. However, for clarity of data representation, power and temperature histories of the M63 runs are given for snapshots, three minutes for each power level.

Note that when certain data are not available, corresponding figures are absent, and figure numbering may slightly differ from that used for representation of a complete data set explained above.

Appendix C: Test conditions and detailed data from all 36 runs

In this Appendix, detail information on the thirty six runs is given. Pages are numbered to reflect the run ID. For example, information of run #5 can be found in pages numbered as A5- . Figures shown in each section are numbered similarly. For example, figure 10 of run #5 is A5.10.

ID #1

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T08A	1156	LA4	15	B	11/27/2002/10:30

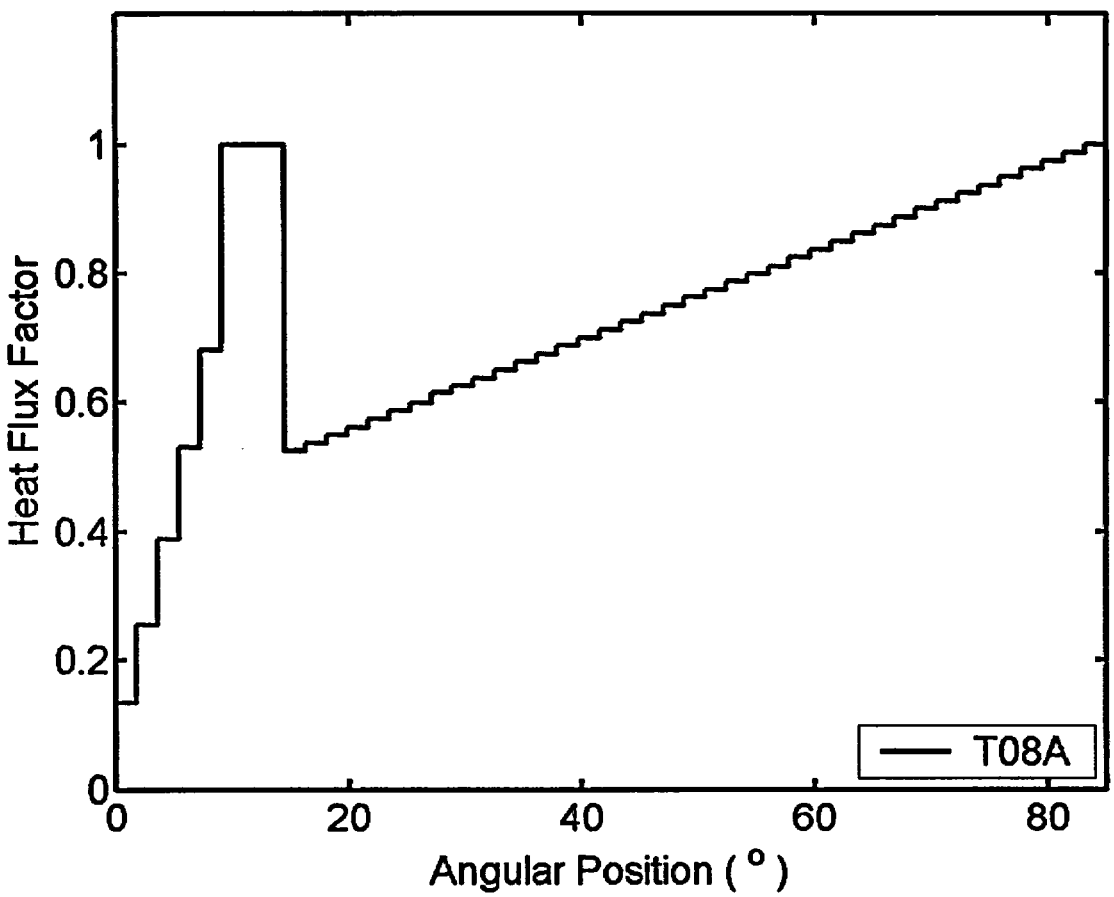

Figure A01.1. Power shape.

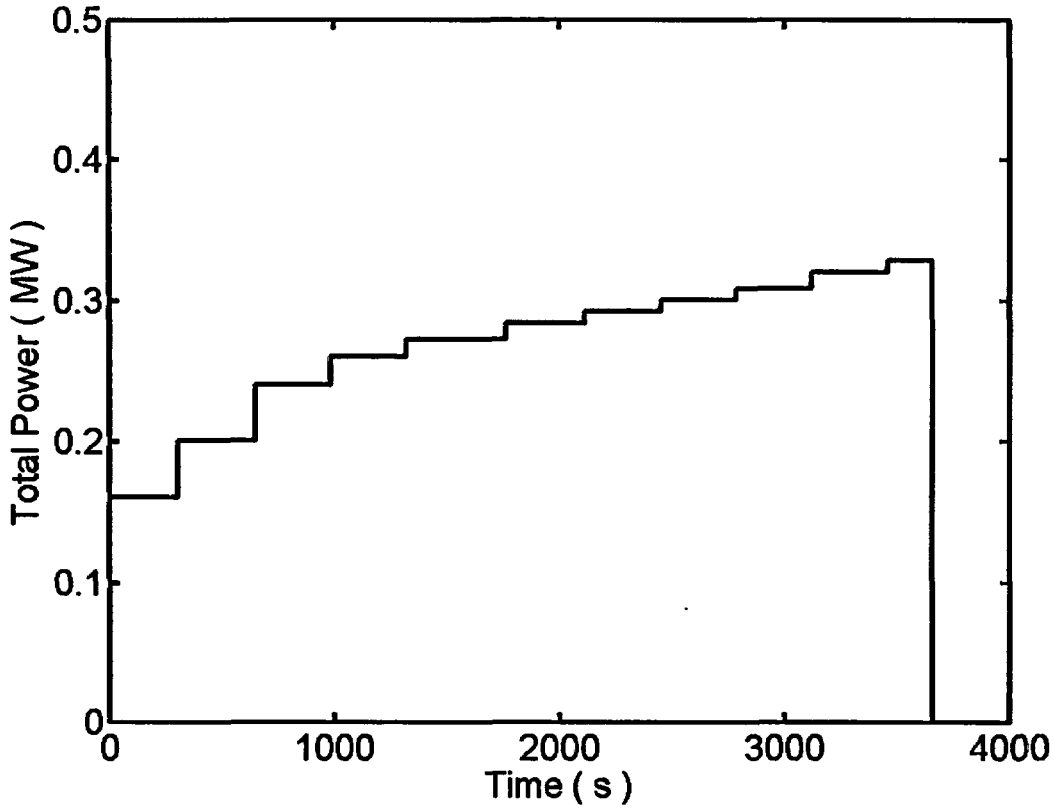

Figure A01.2. Total input power history.

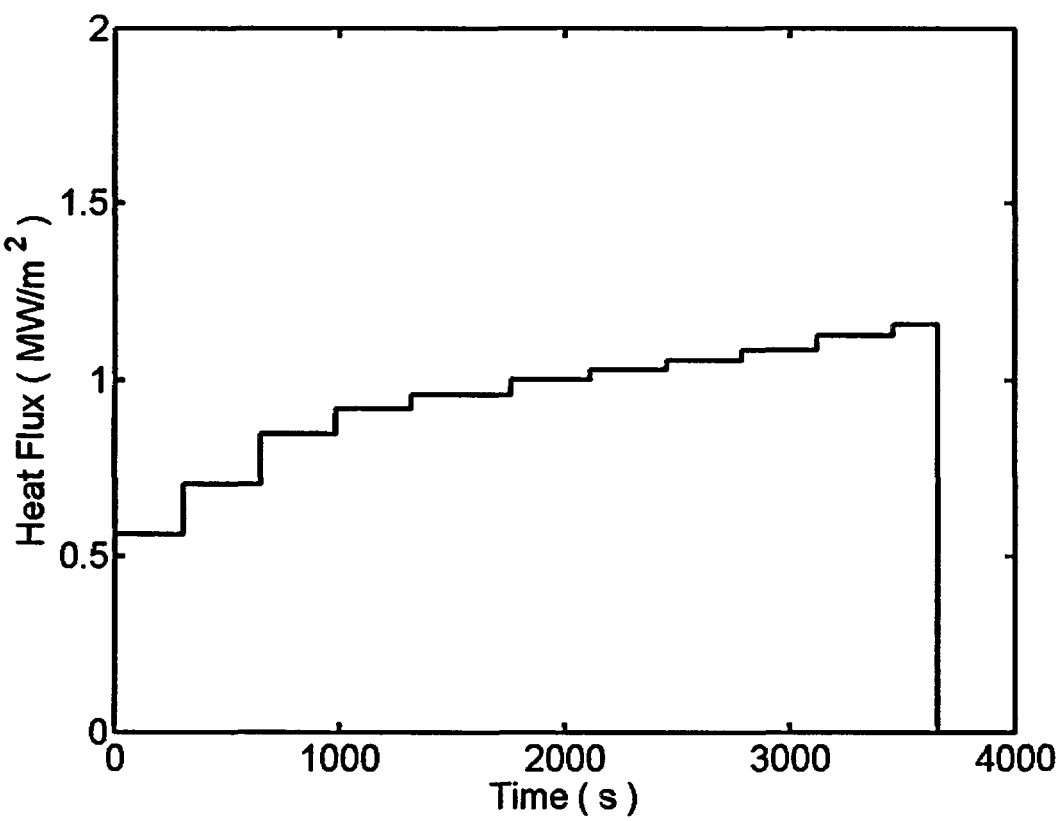

Figure A01.3. Heat flux history.

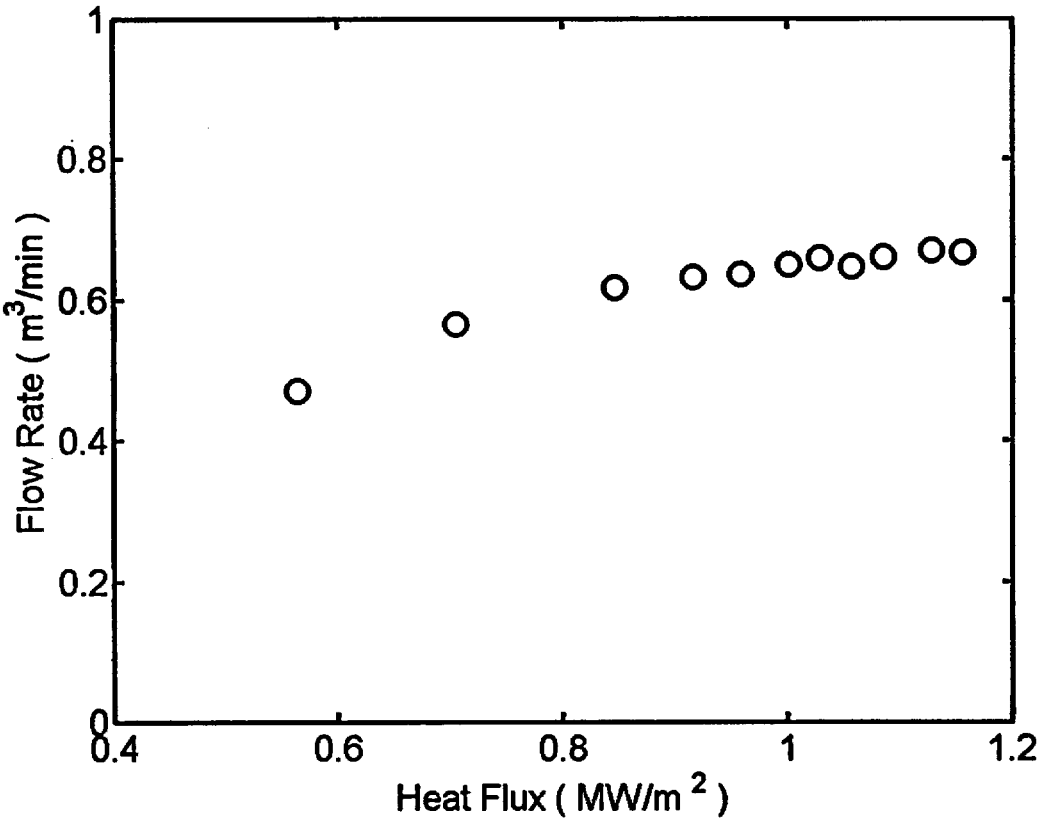

Figure A01.4. Flow rate vs. heat fluxes.

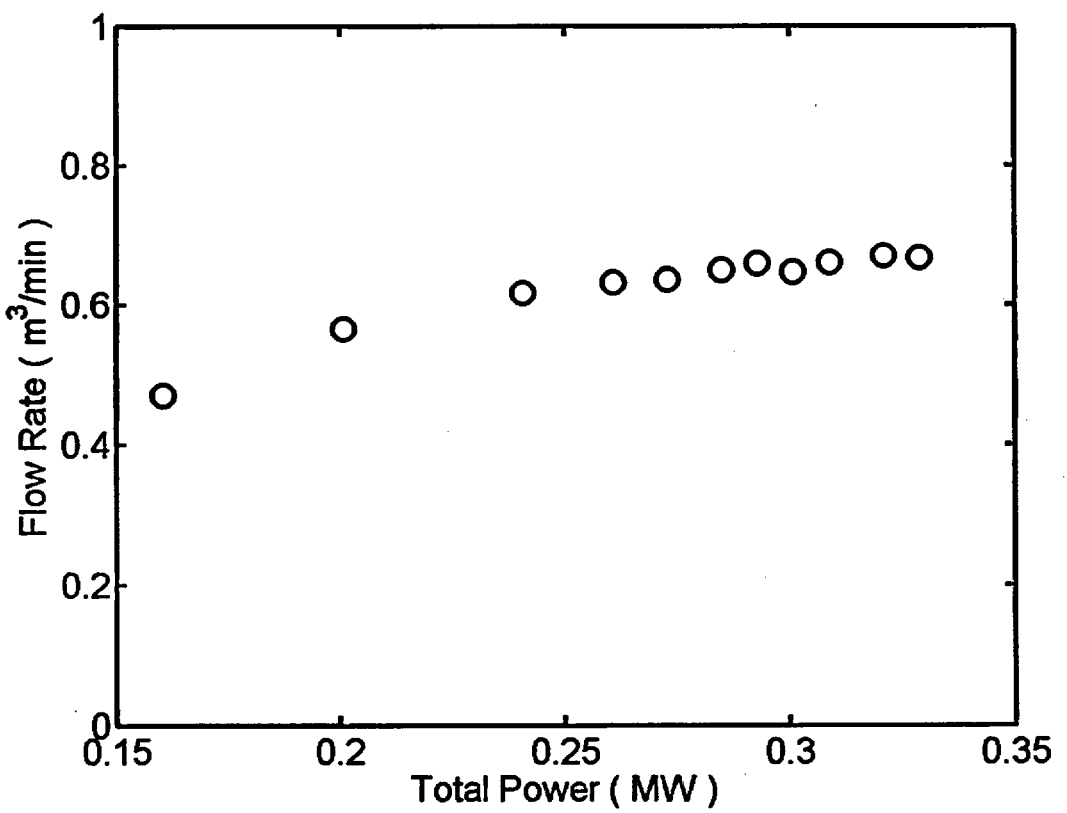

Figure A01.5. Flow rate vs. total input power.

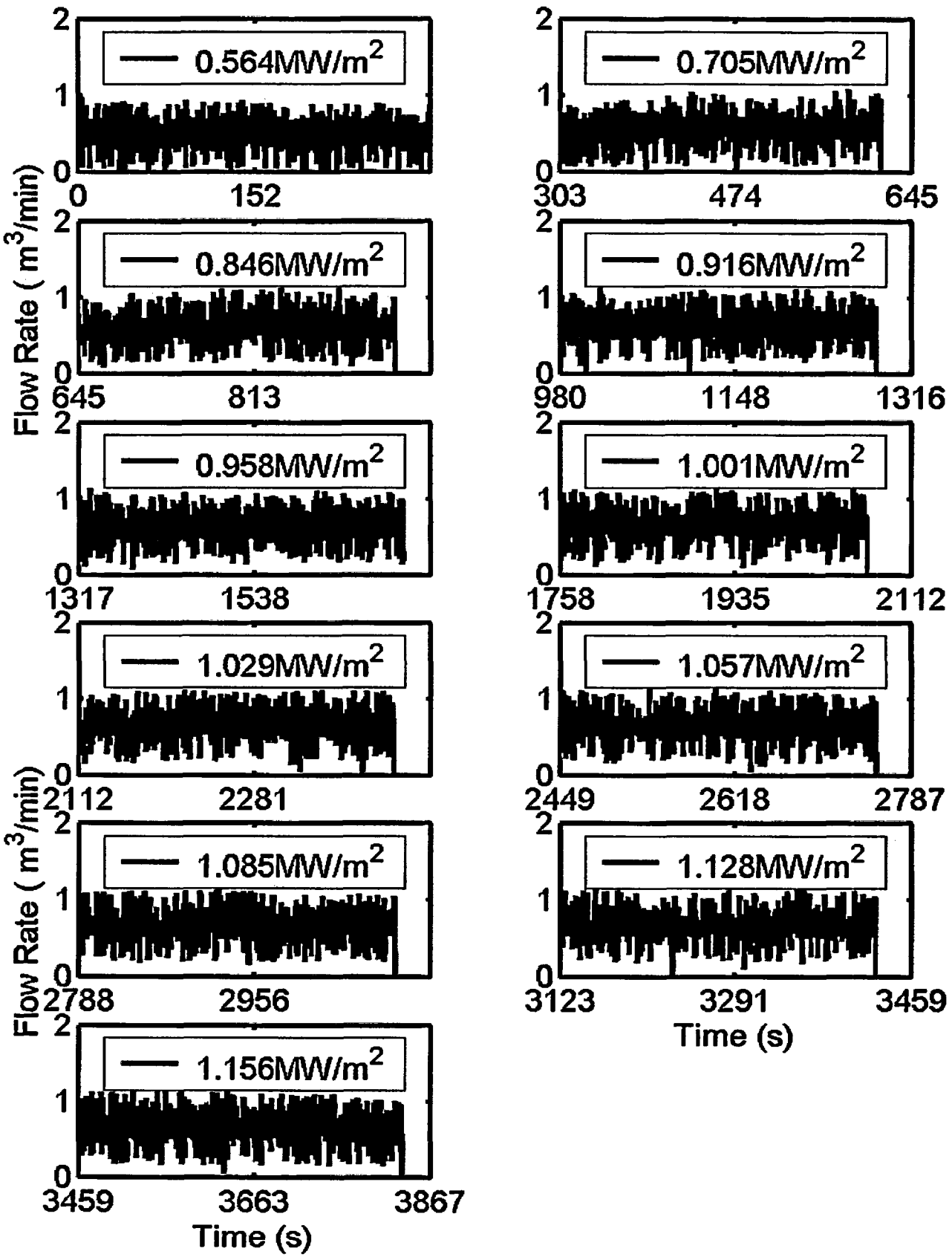

Figure A01.6. Flow rates at different heat fluxes.

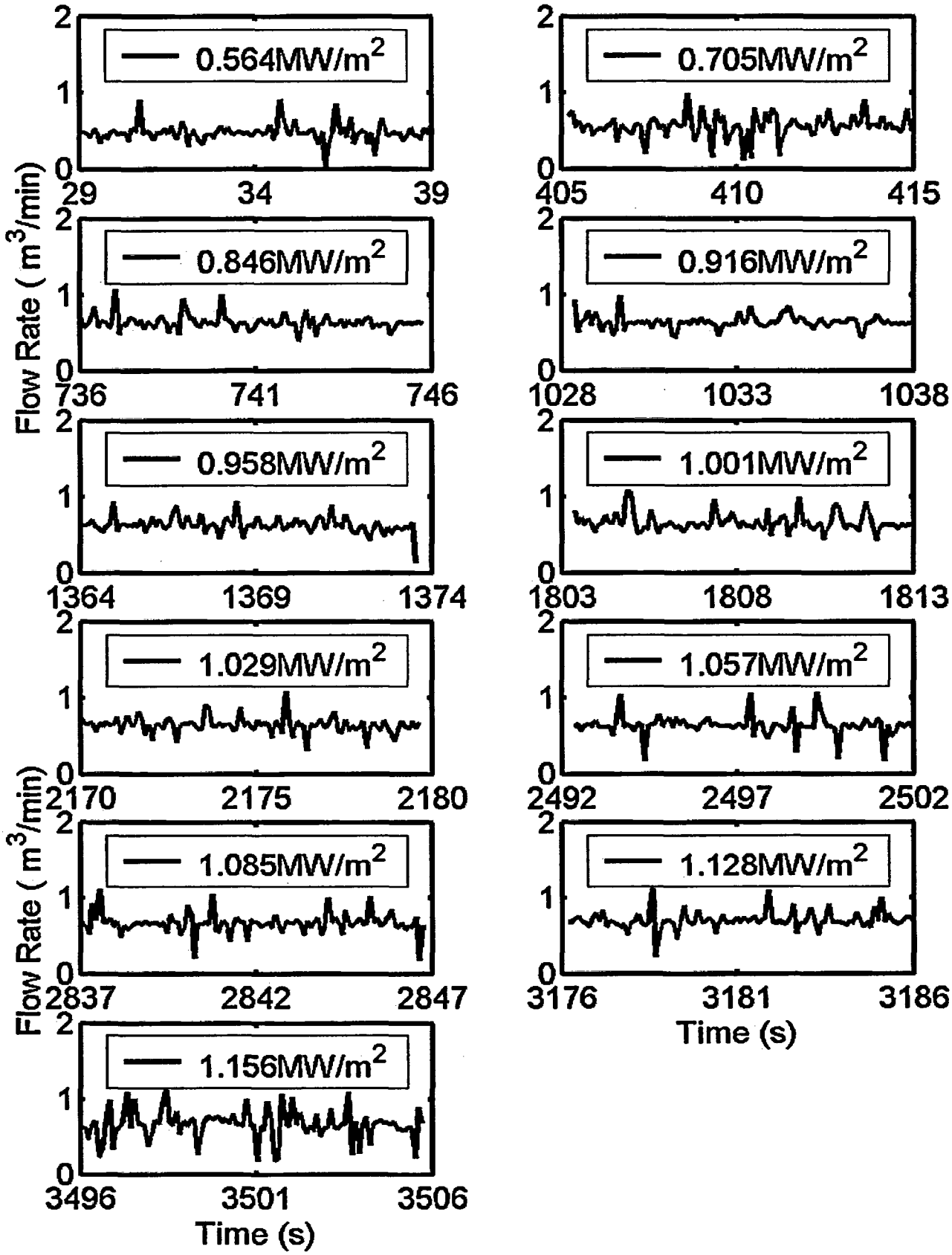

Figure A01.7. Flow rates at different heat fluxes at selected time intervals.

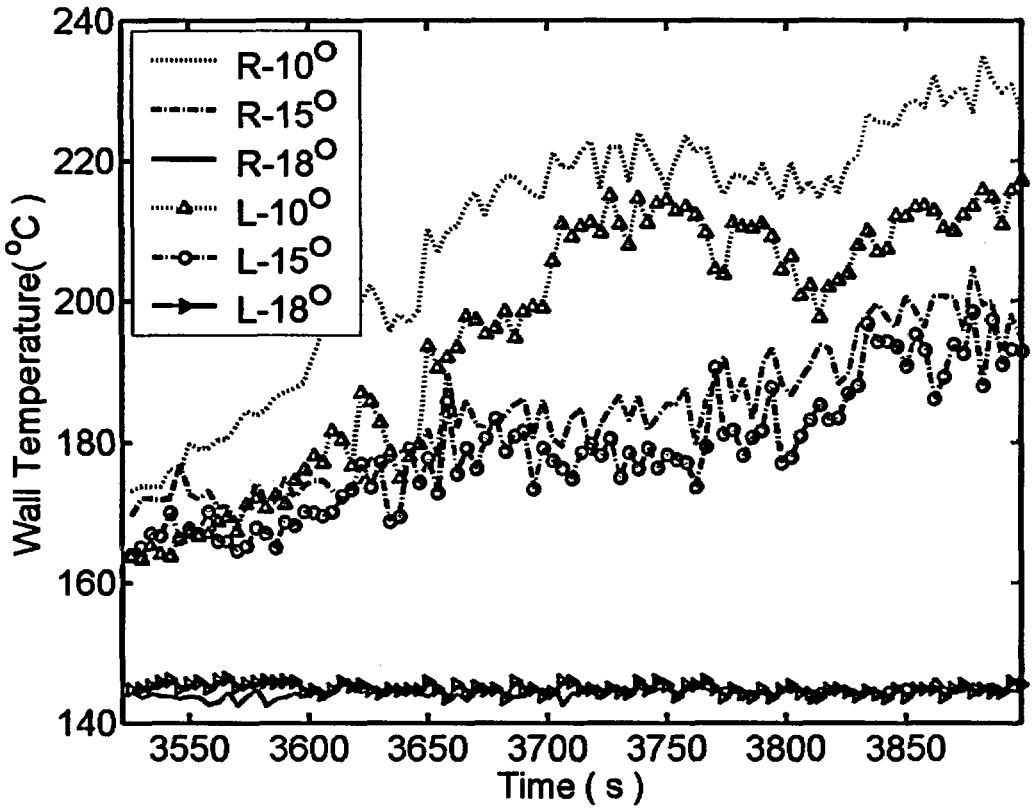

Figure A01.8. Temperature history at CHF.

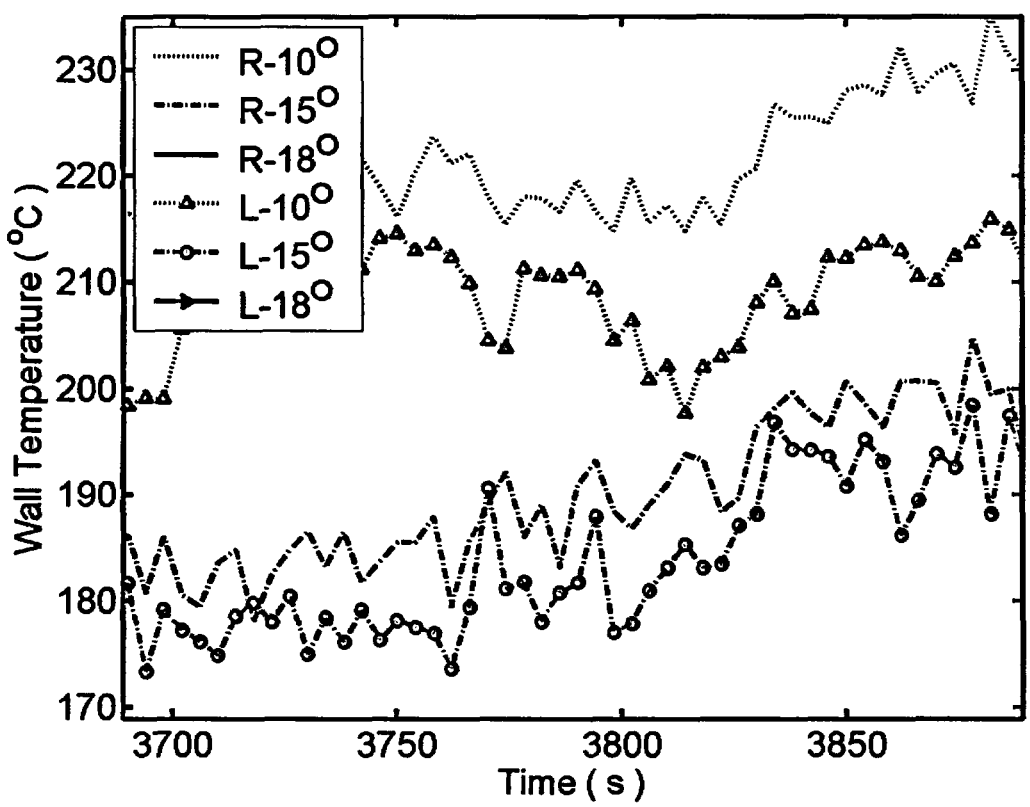

Figure A01.9. Temperature history at CHF in detail.

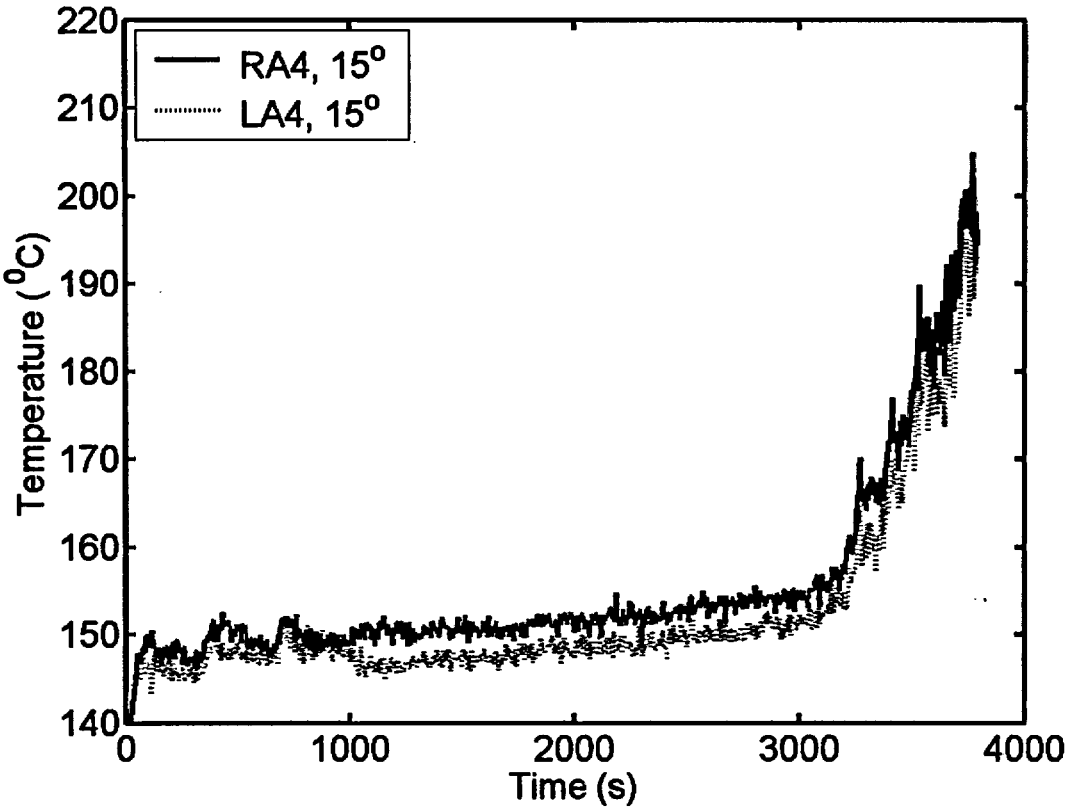

Figure A01.10. Wall temperature history measured by two thermocouples LA4 and RA4.

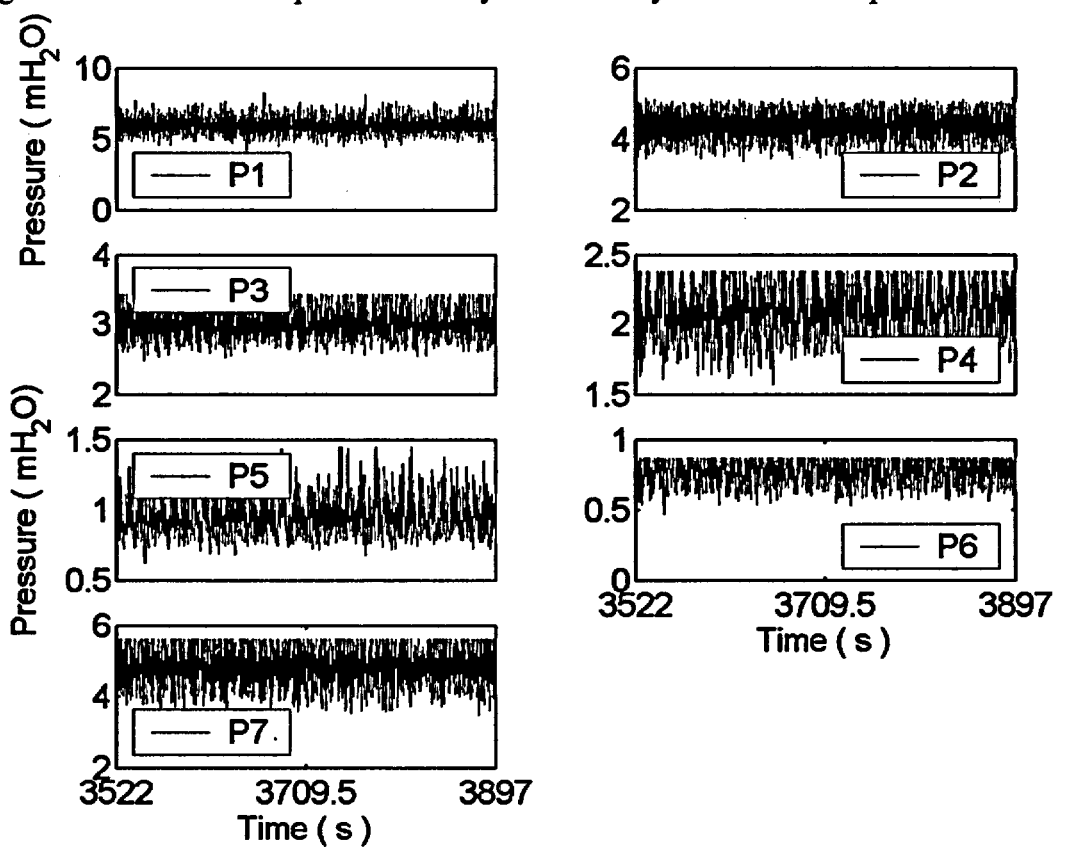

Figure A01.11. Pressure transducer data at q = 1.156 MW/m^2.

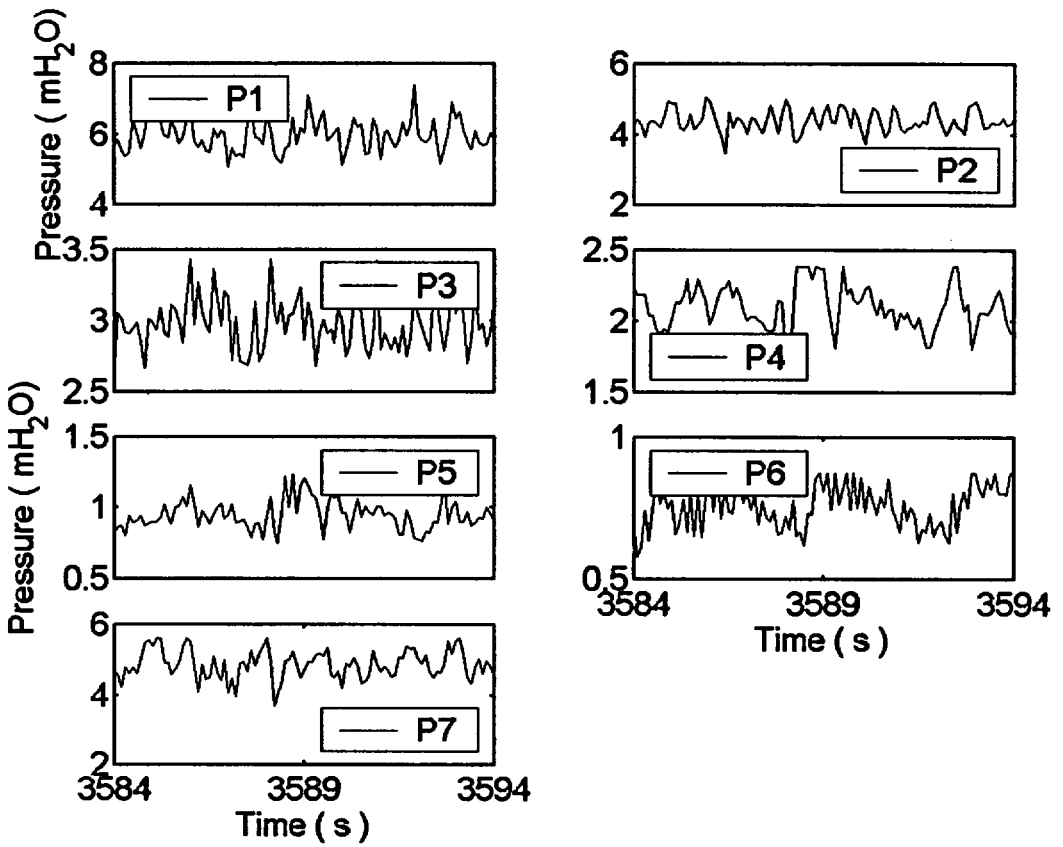

Figure A01.12. Pressure data in detail at q = 1.156 MW/m^2.

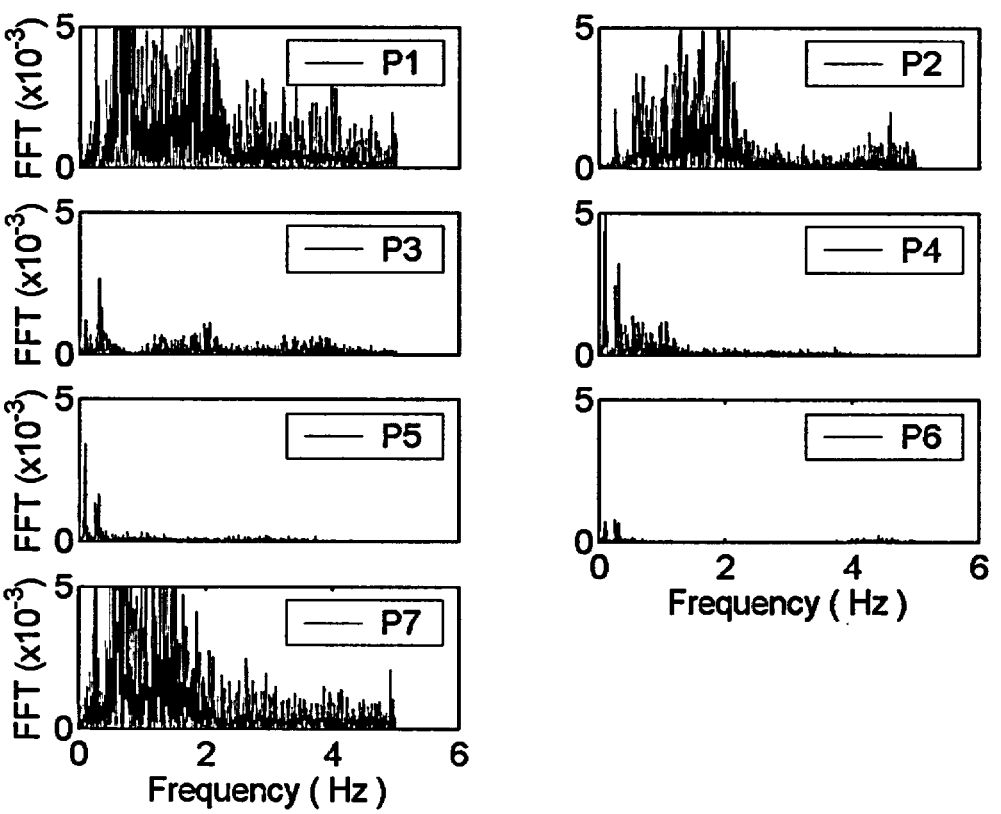

Figure A01.13. FFT of pressure time series at q = 1.156 MW/m^2.

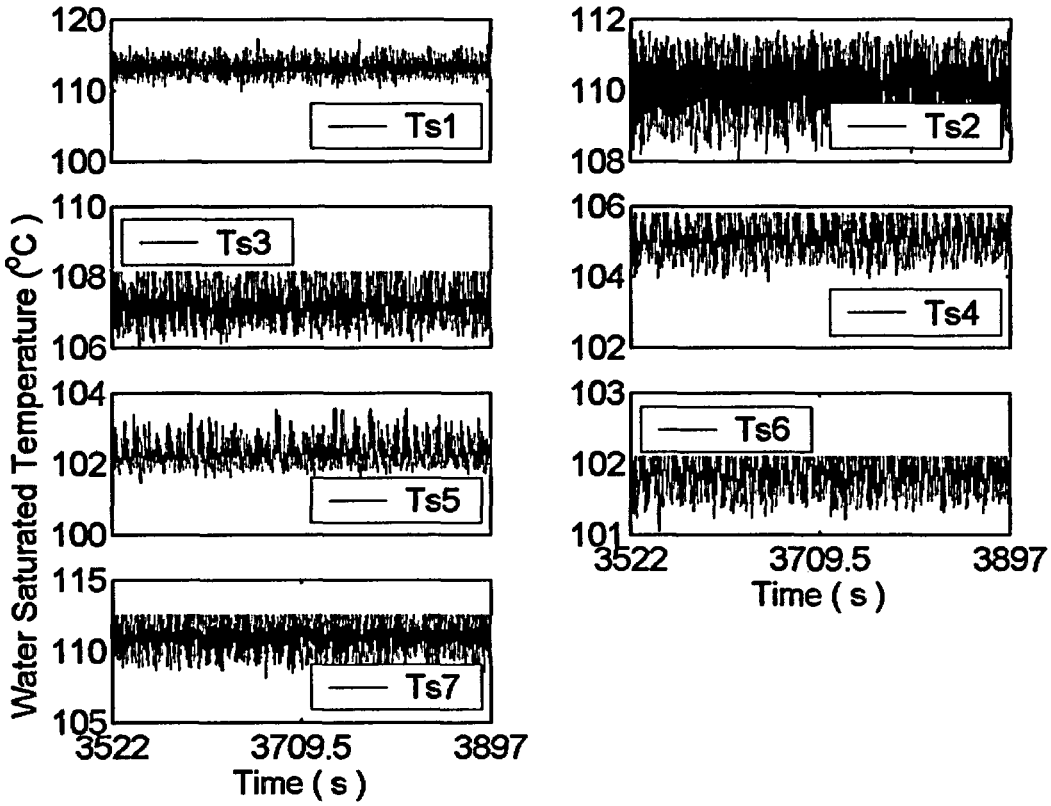

Figure A01.14. Water saturation temperature calculated from local pressure data at q = 1.156 MW/m^2.

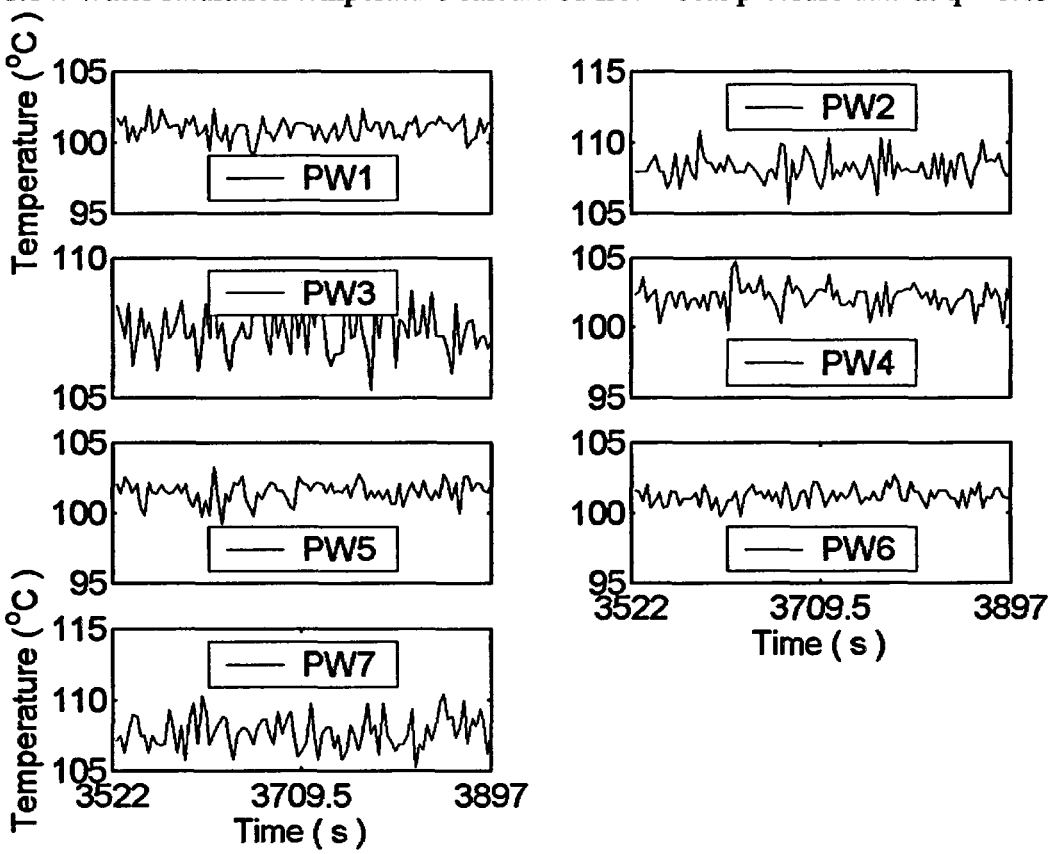

Figure A01.15. Water temperature measured at location of pressure transducer at q = 1.156 MW/m^2.

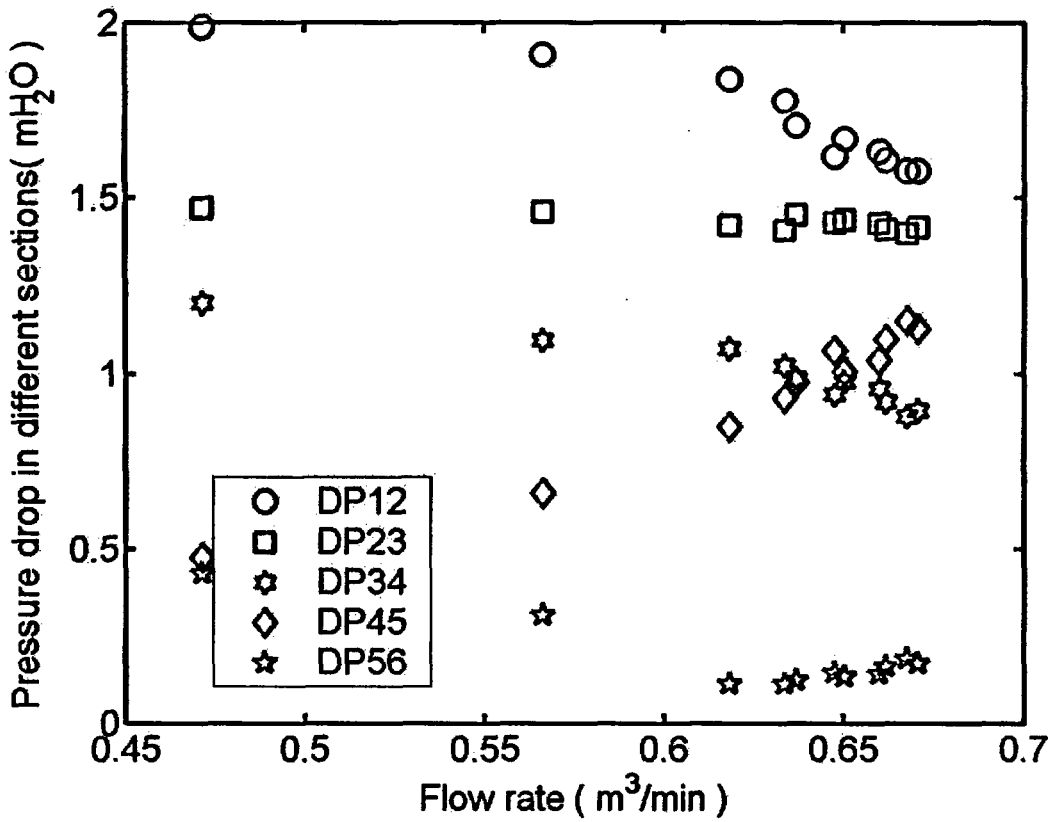

Figure A01.16. Pressure drop vs. flow rate at different heat fluxes.

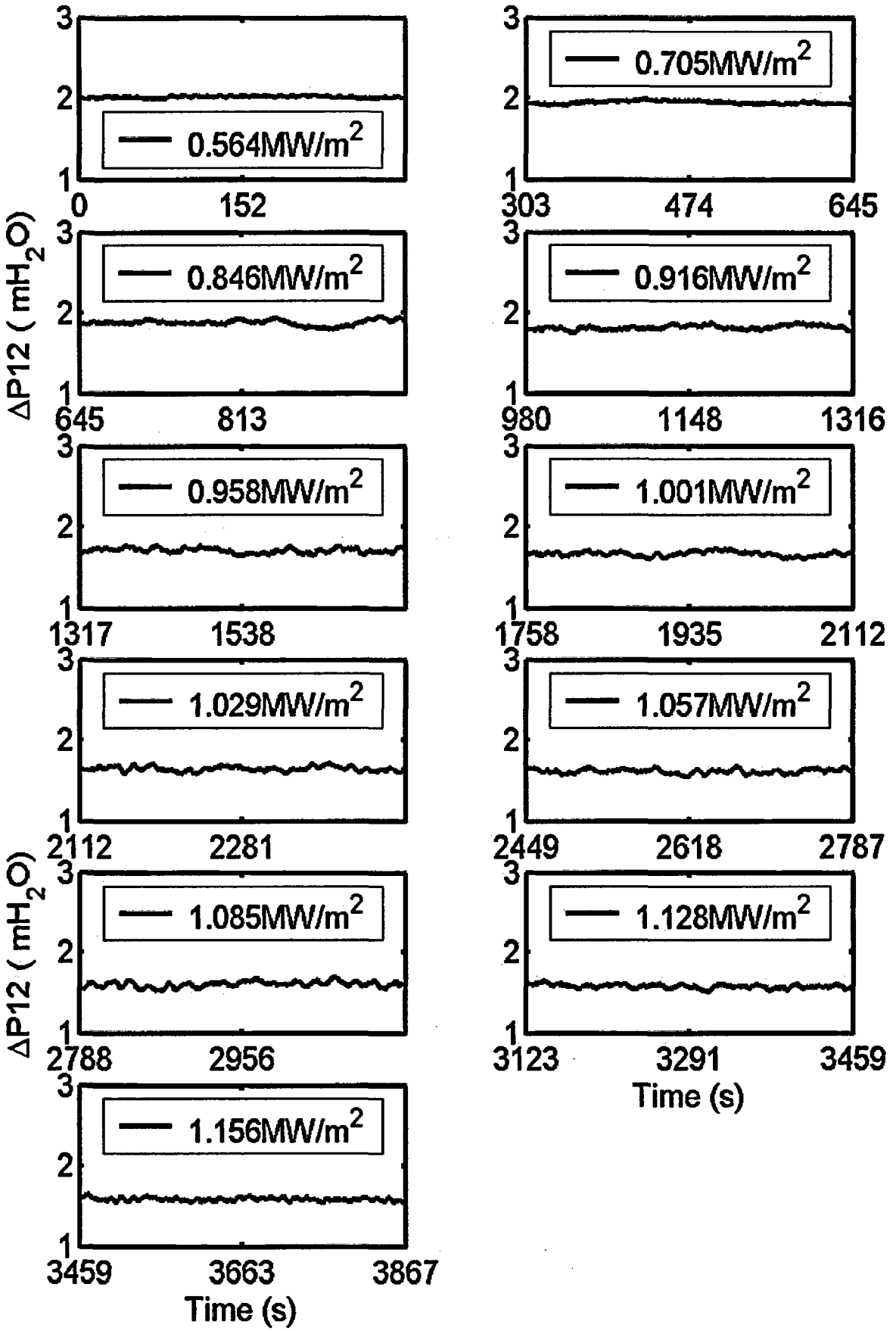

Figure A01.17. Differential Pressure ΔP12 at different heat fluxes.

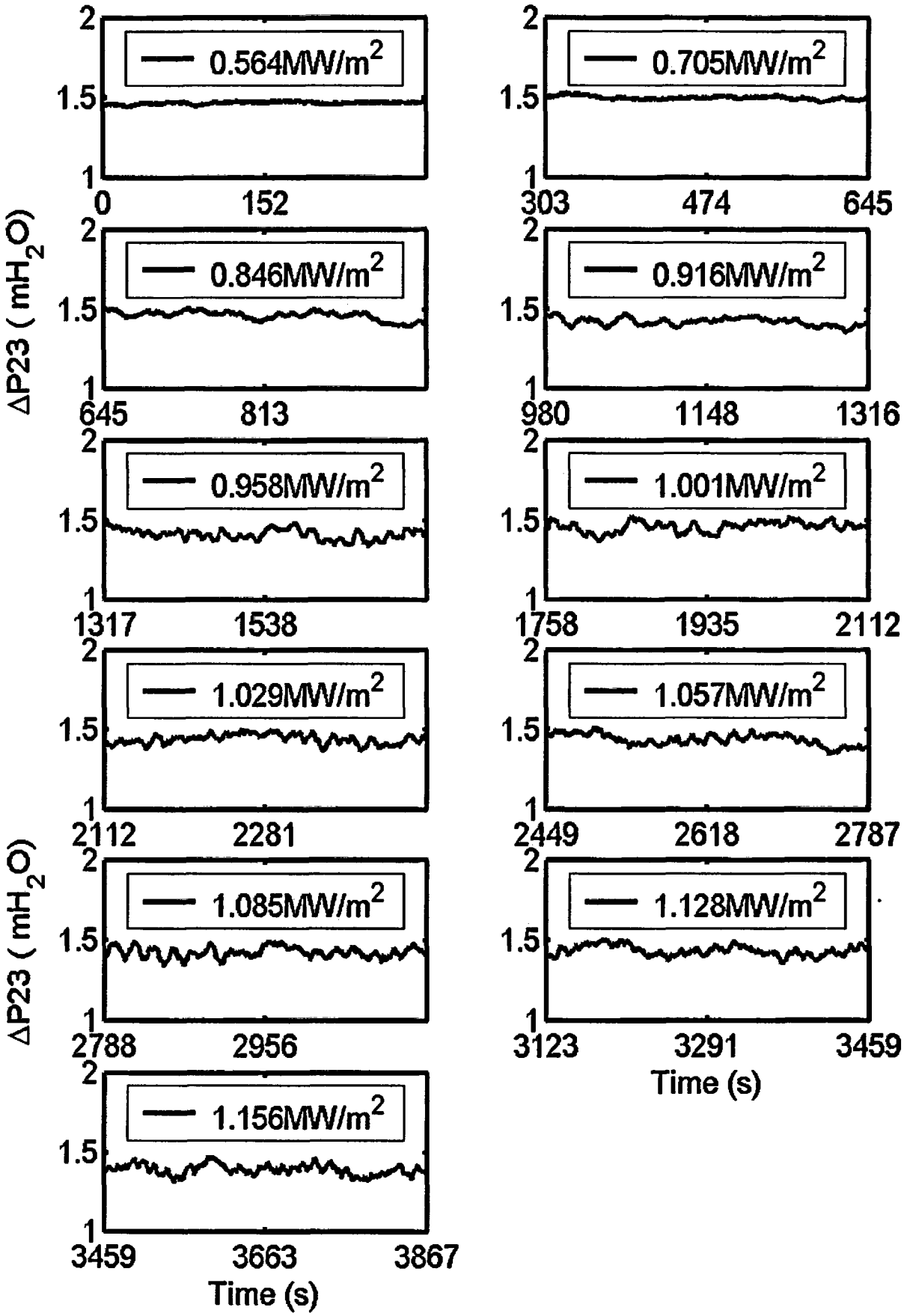

Figure A01.18. Differential Pressure ΔP23 at different heat fluxes.

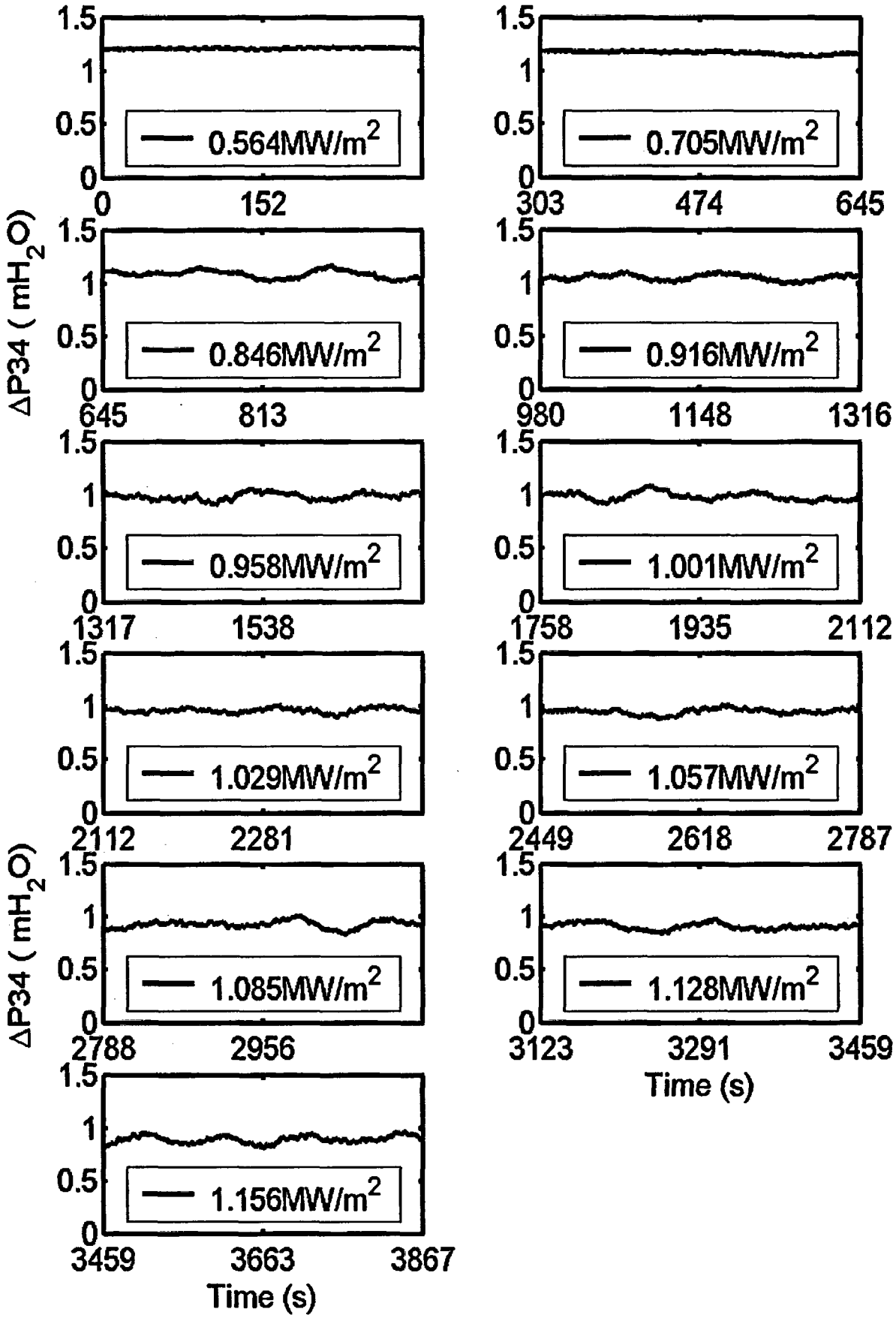

Figure A01.19. Differential Pressure ΔP34 at different heat fluxes.

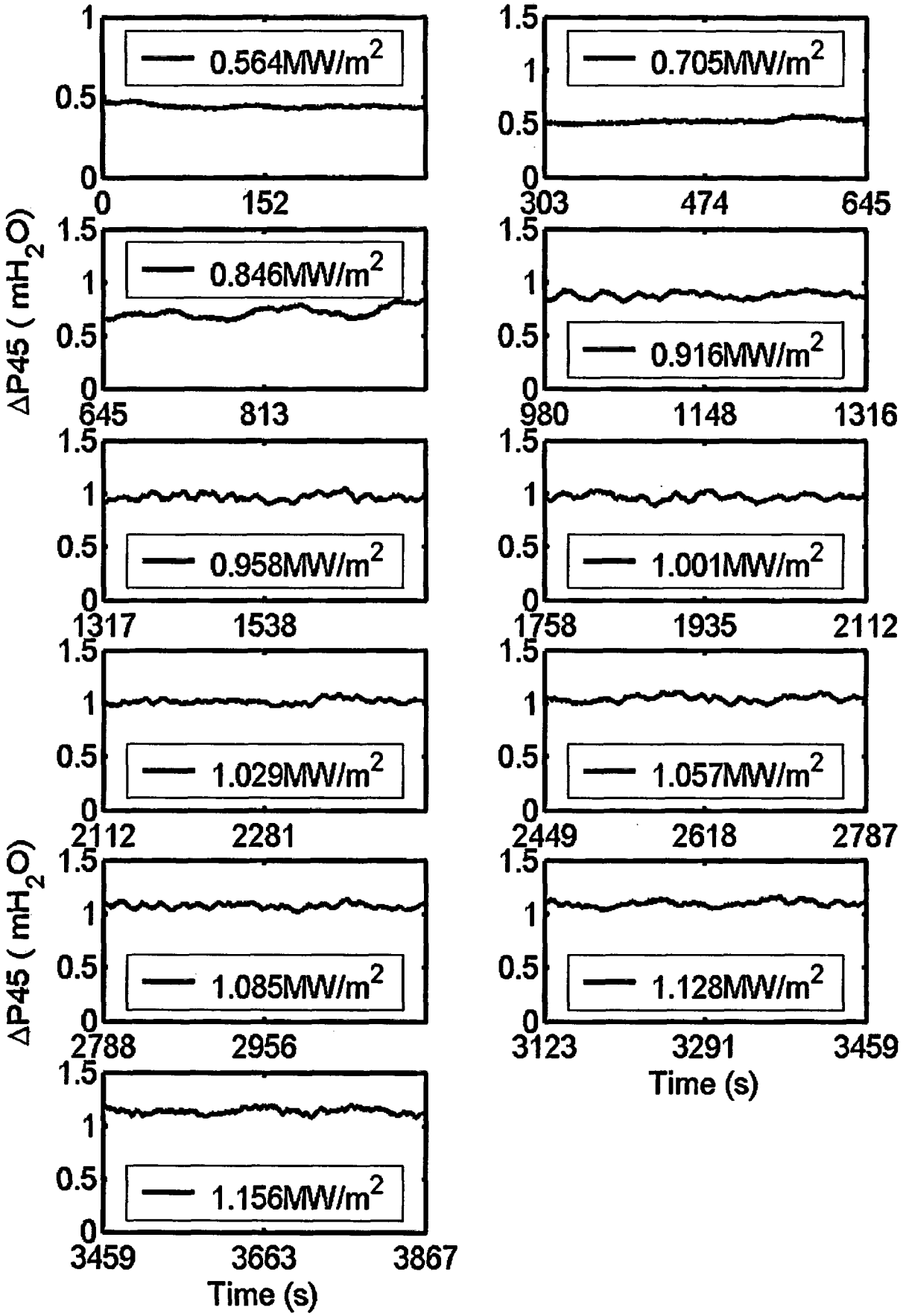

Figure A01.20. Differential Pressure ΔP45 at different heat fluxes.

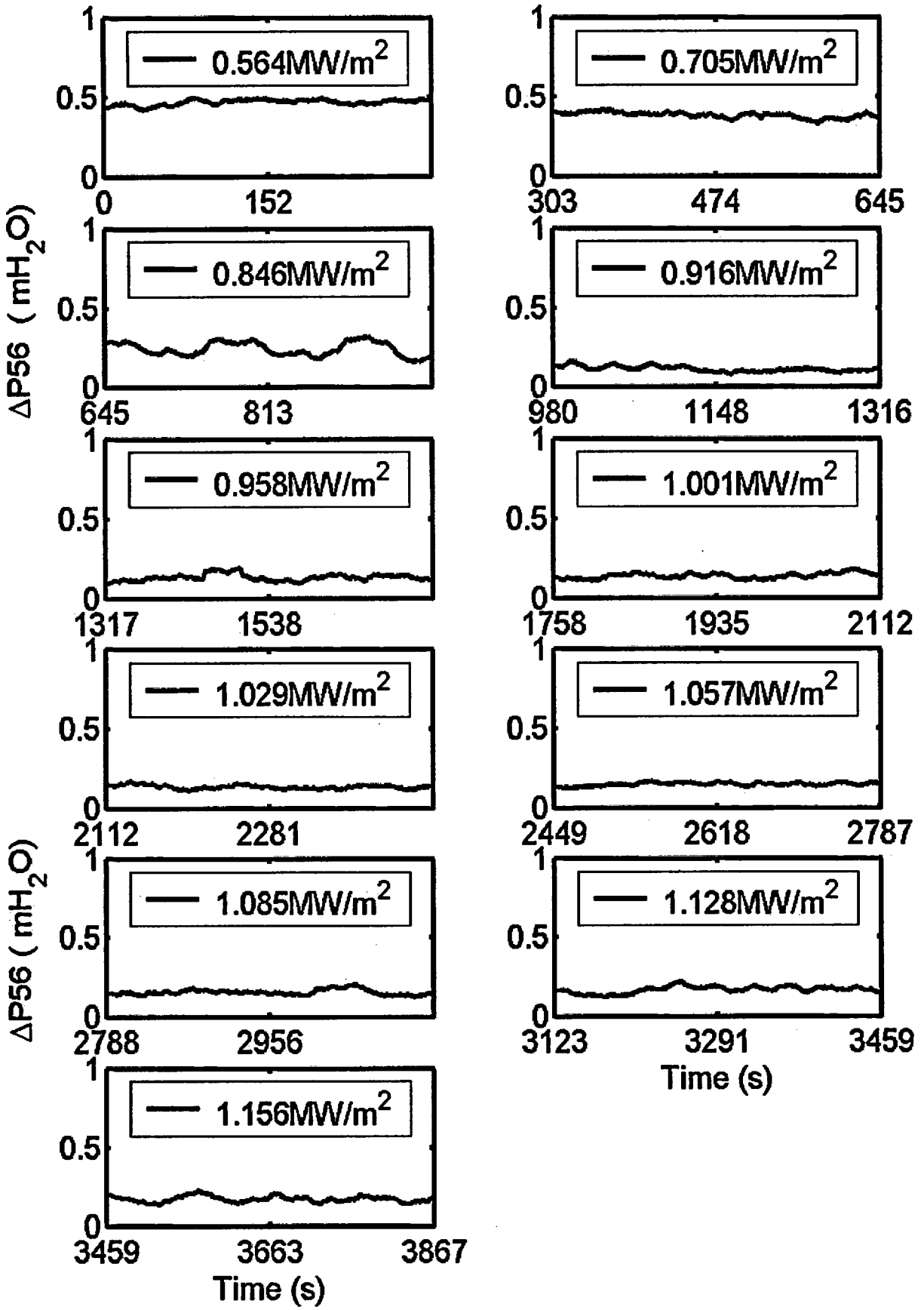

Figure A01.21. Differential Pressure ΔP56 at different heat fluxes.

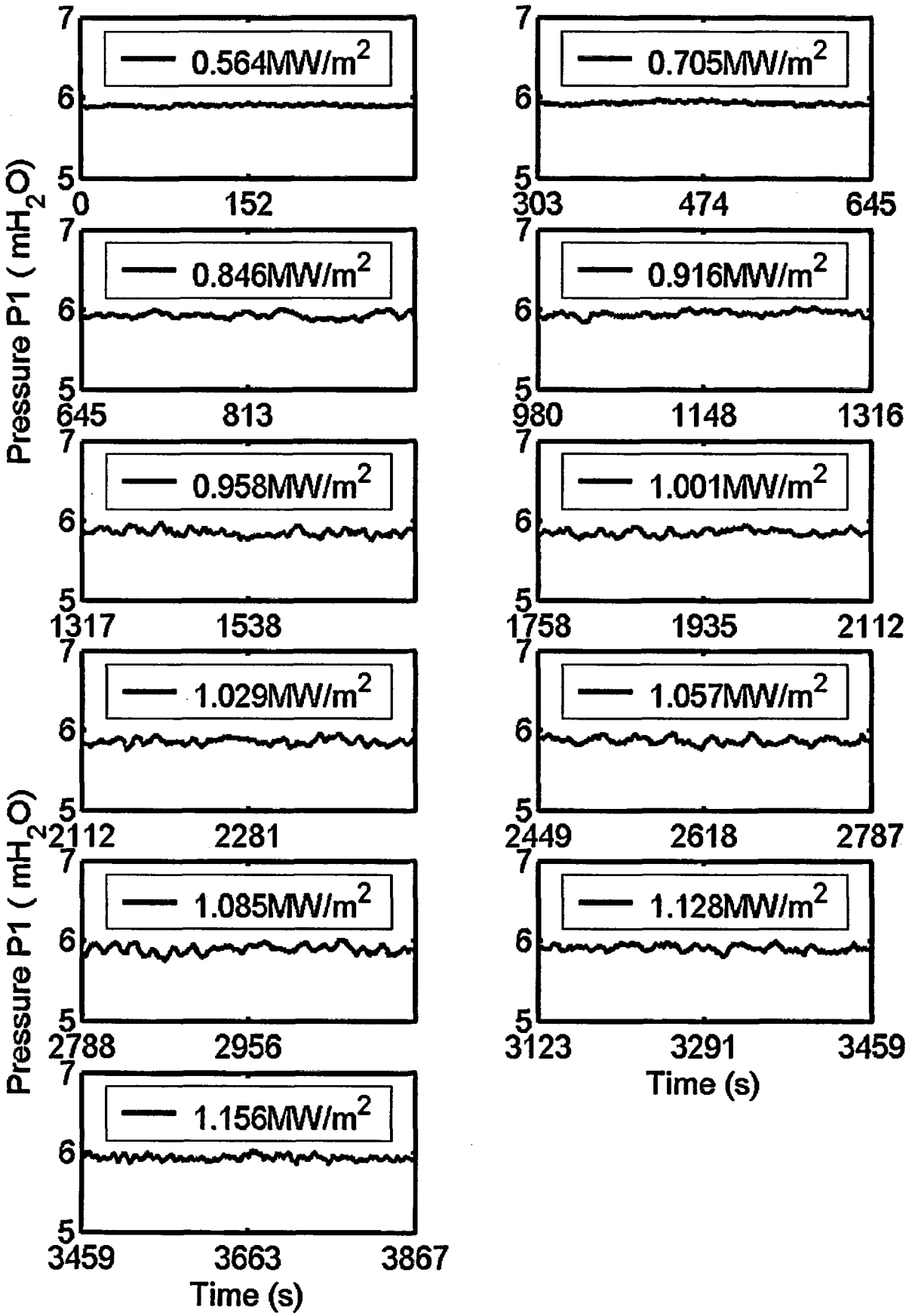

Figure A01.22. Pressure P1 at different heat fluxes.

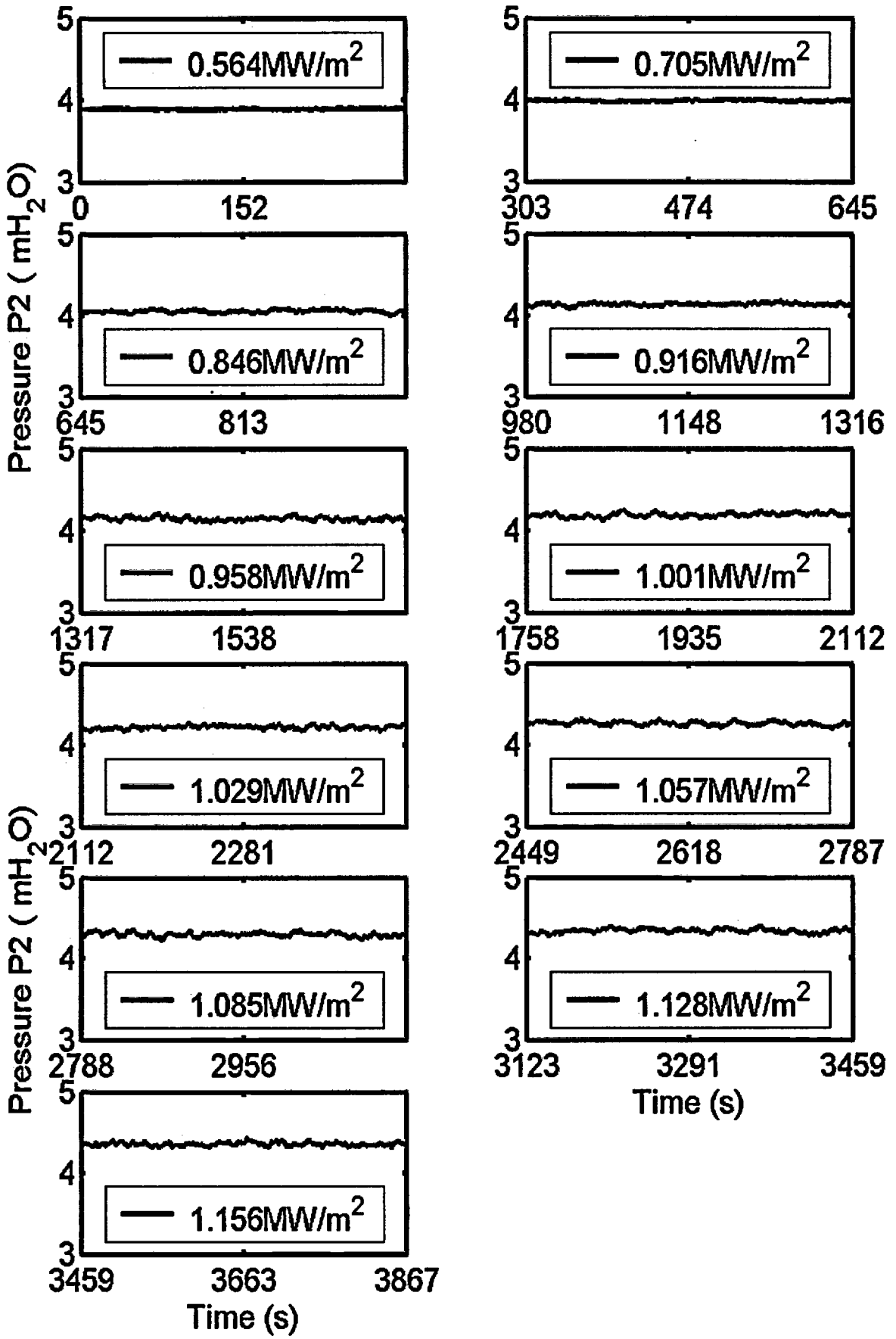

Figure A01.23. Pressure P2 at different heat fluxes.

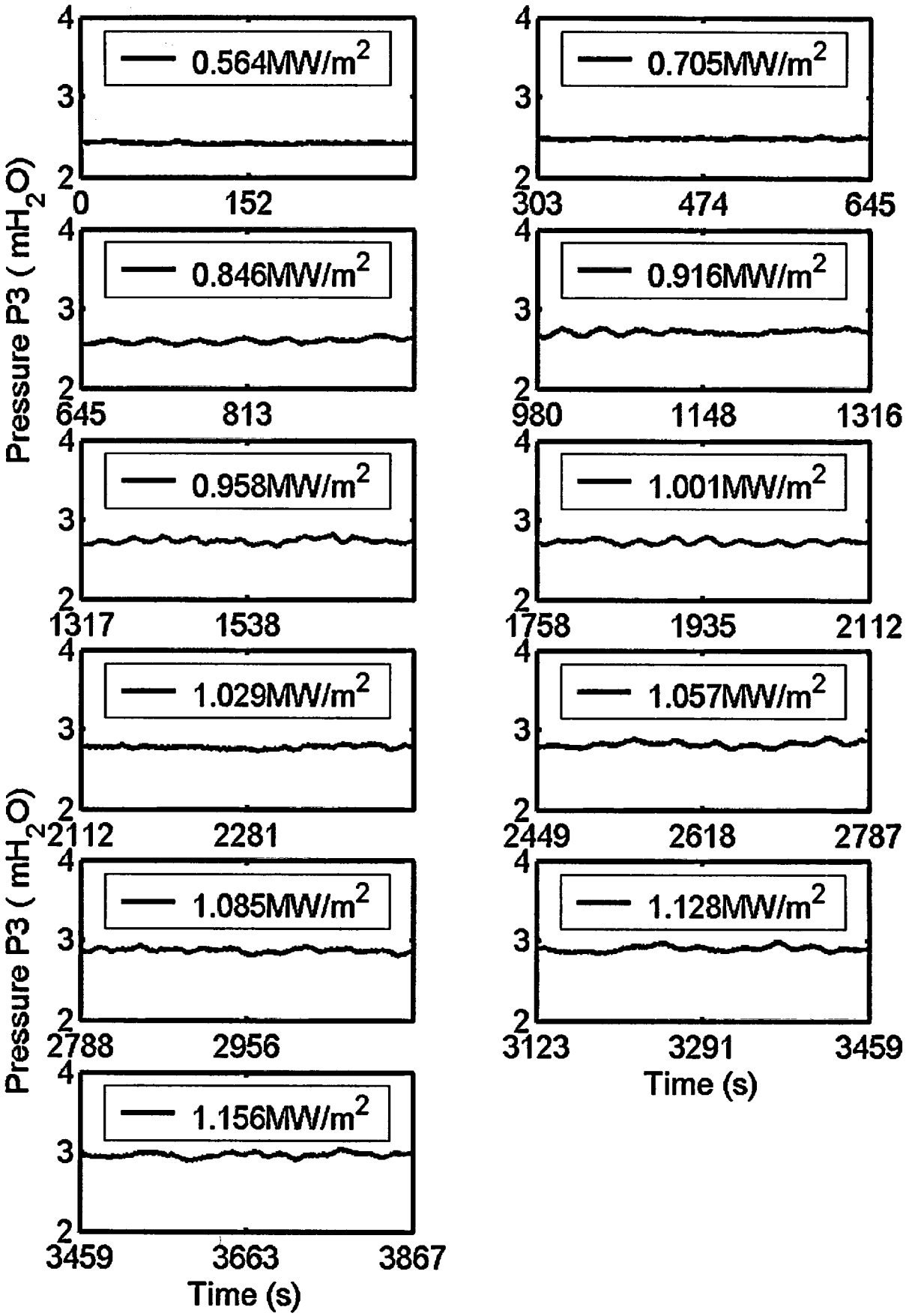

Figure A01.24. Pressure P3 at different heat fluxes.

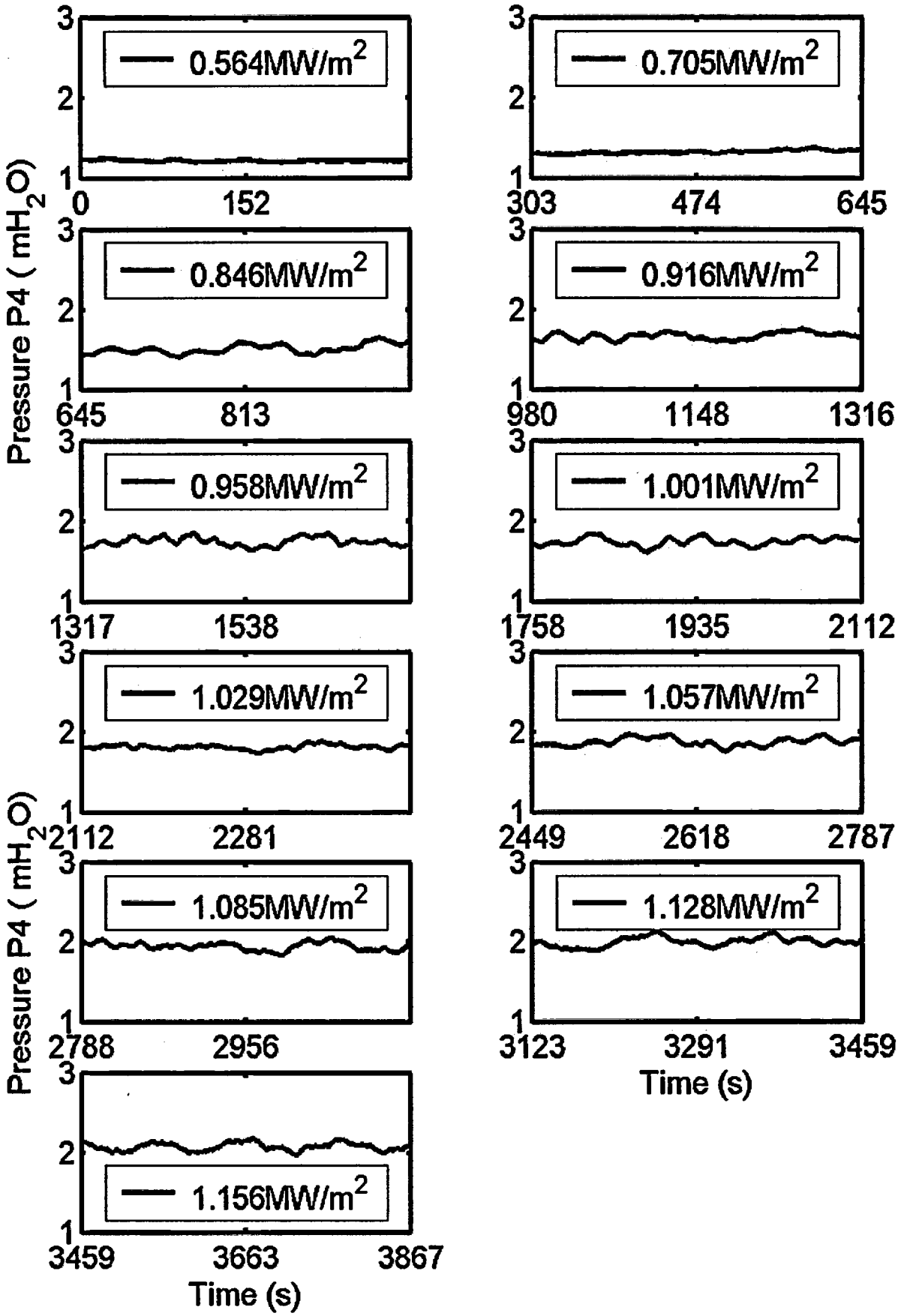

Figure A01.25. Pressure P4 at different heat fluxes.

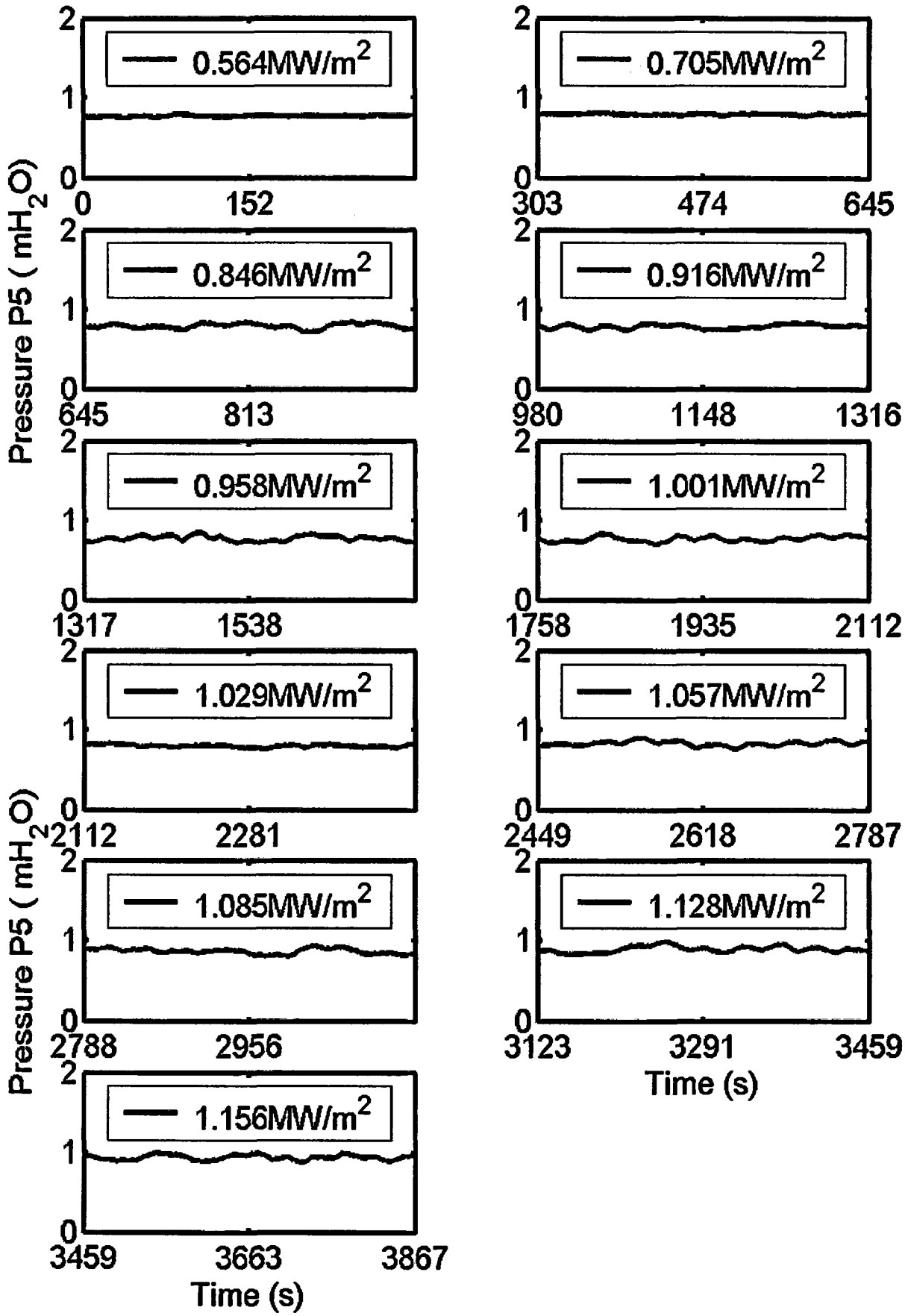

Figure A01.26. Pressure P5 at different heat fluxes.

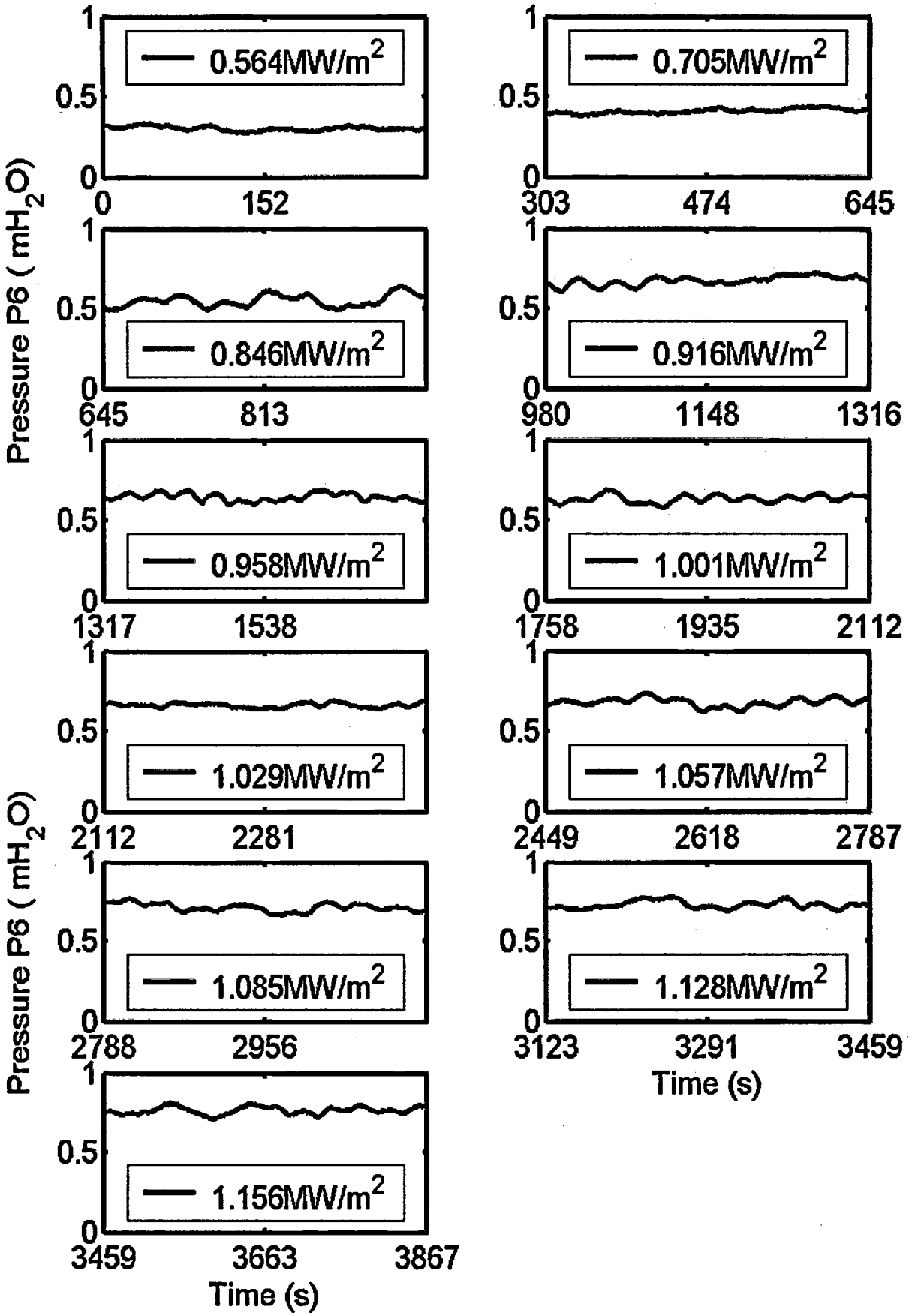

Figure A01.27. Pressure P6 at different heat fluxes.

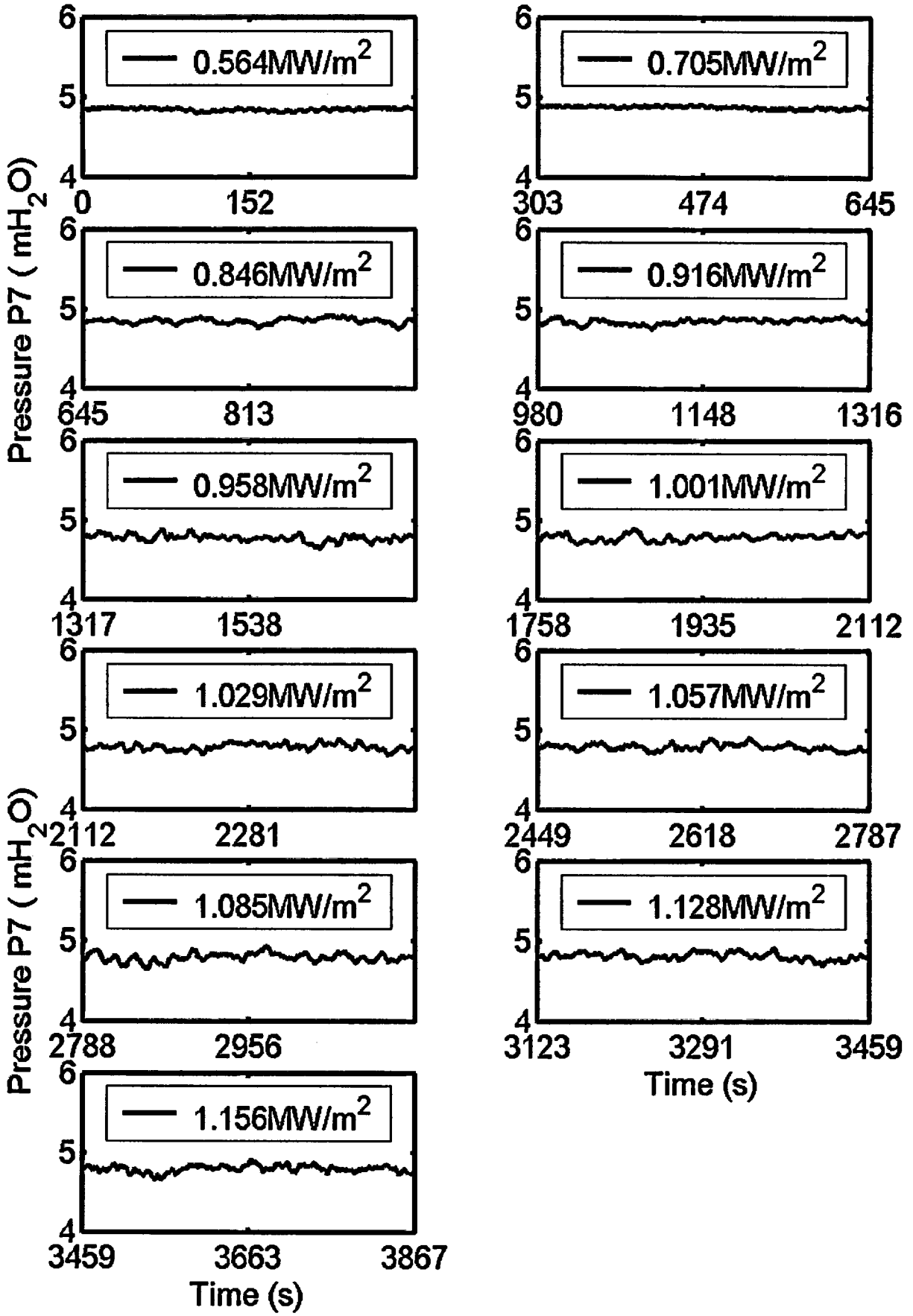

Figure A01.28. Pressure P7 at different heat fluxes.

ID #2

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T24A	1598	LB4	43	C	11/27/2002/12:20

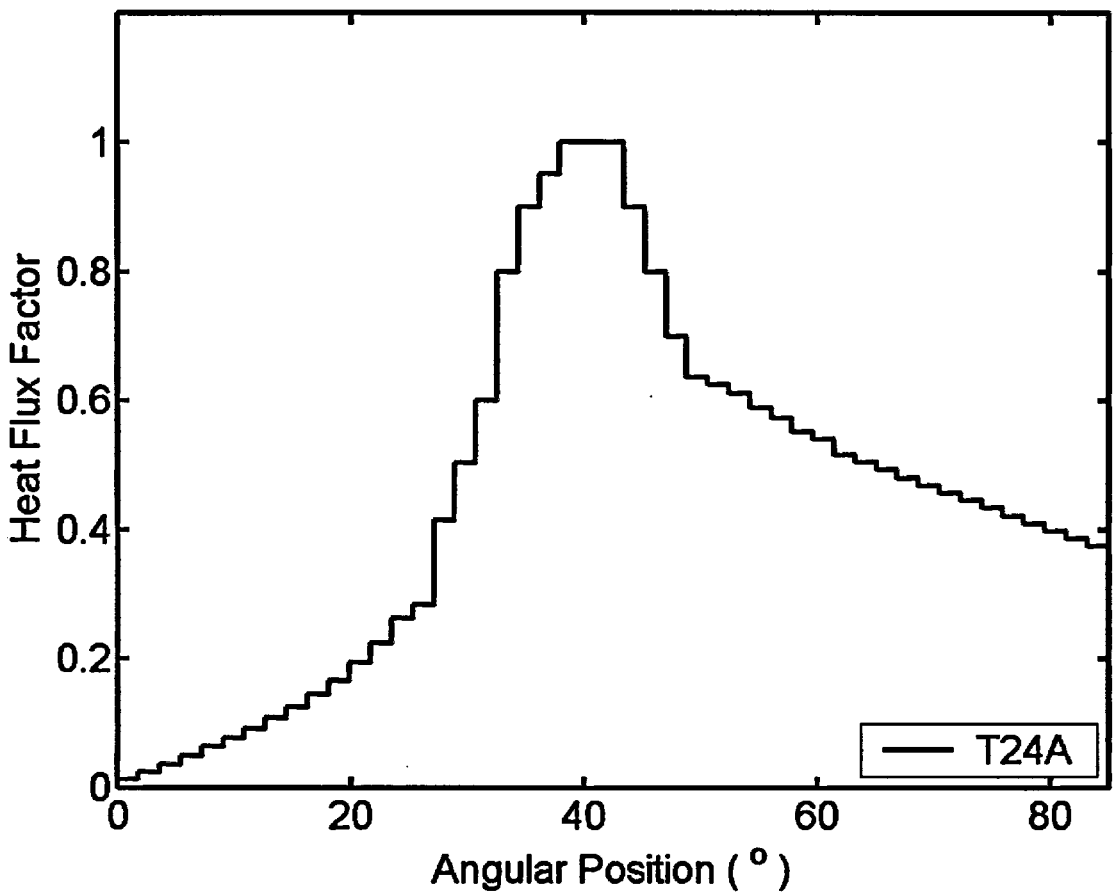

Figure A02.1. Power shape.

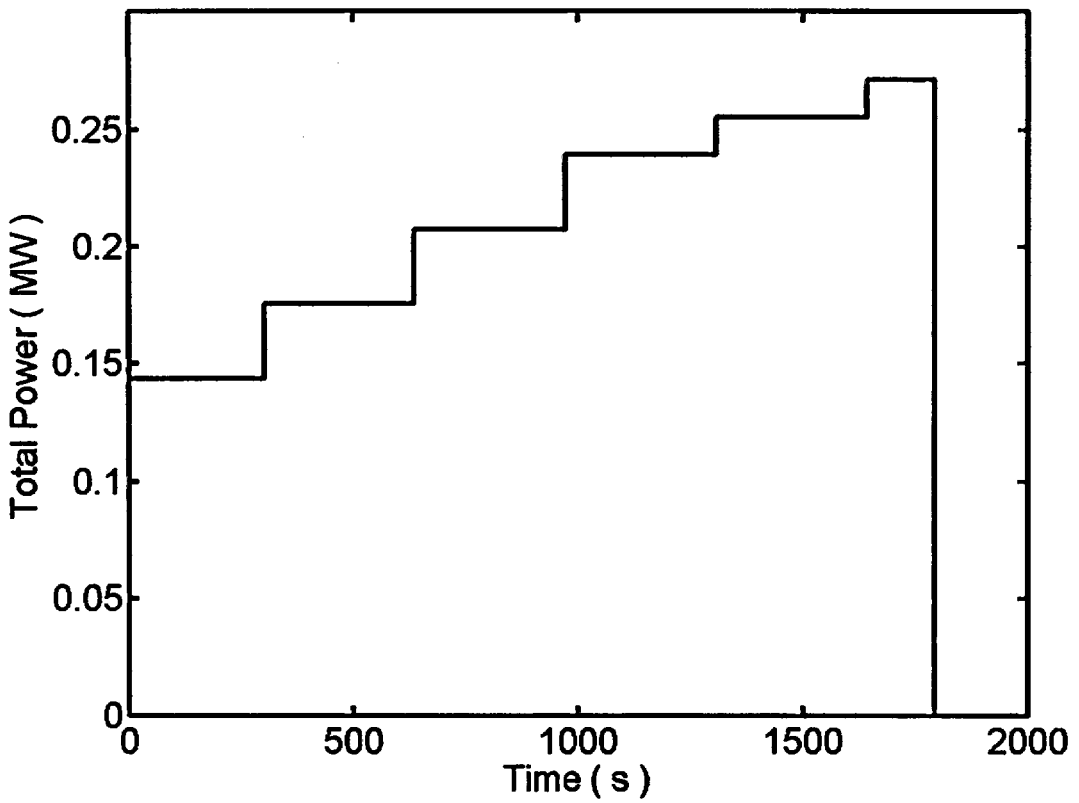

Figure A02.2. Total input power history.

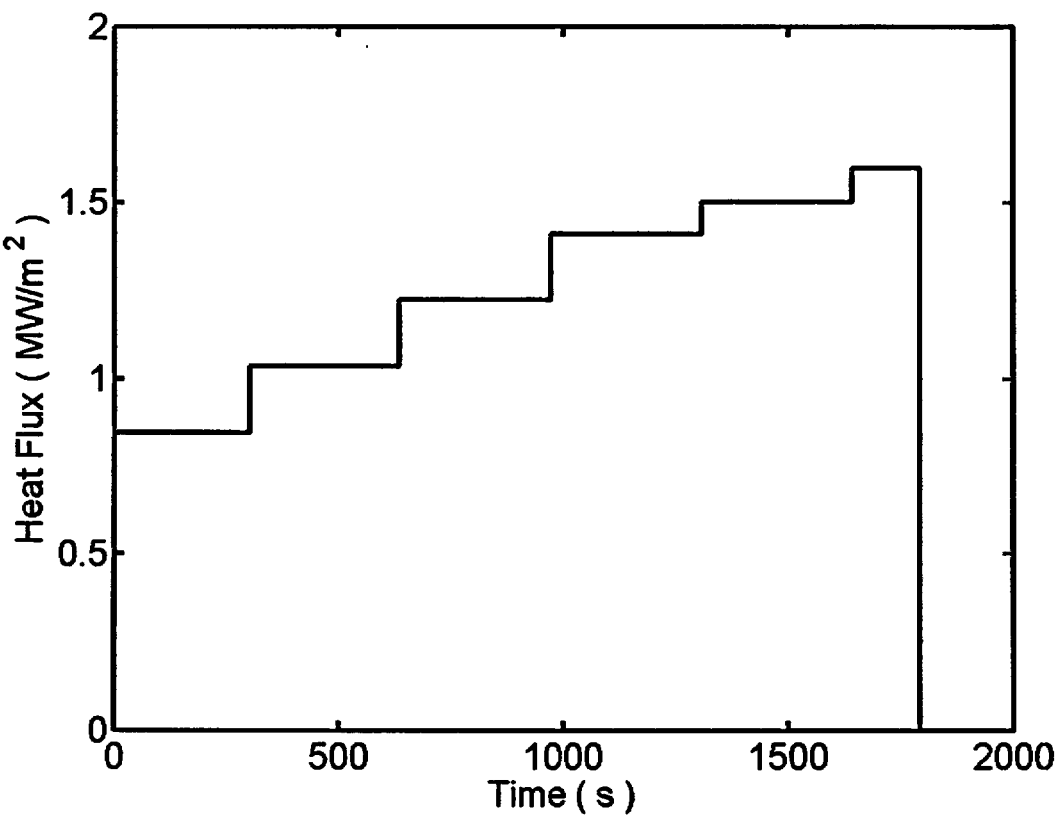

Figure A02.3. Heat flux history.

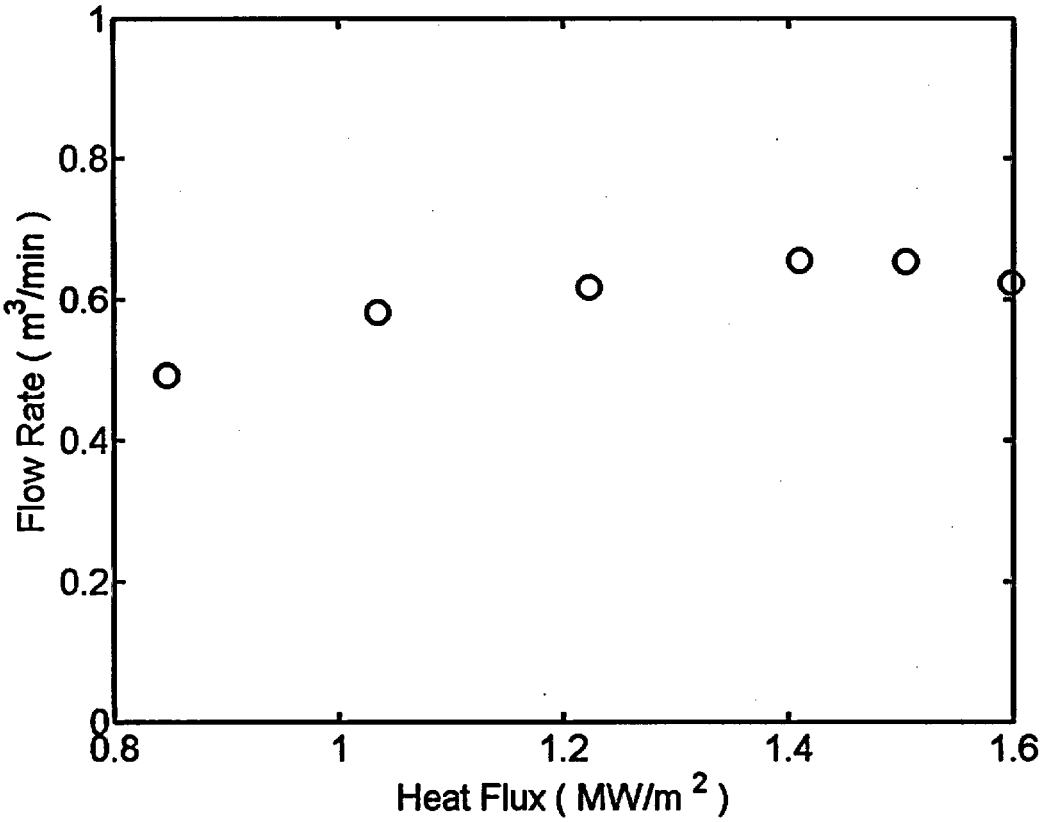

Figure A02.4. Flow rate vs. heat fluxes.

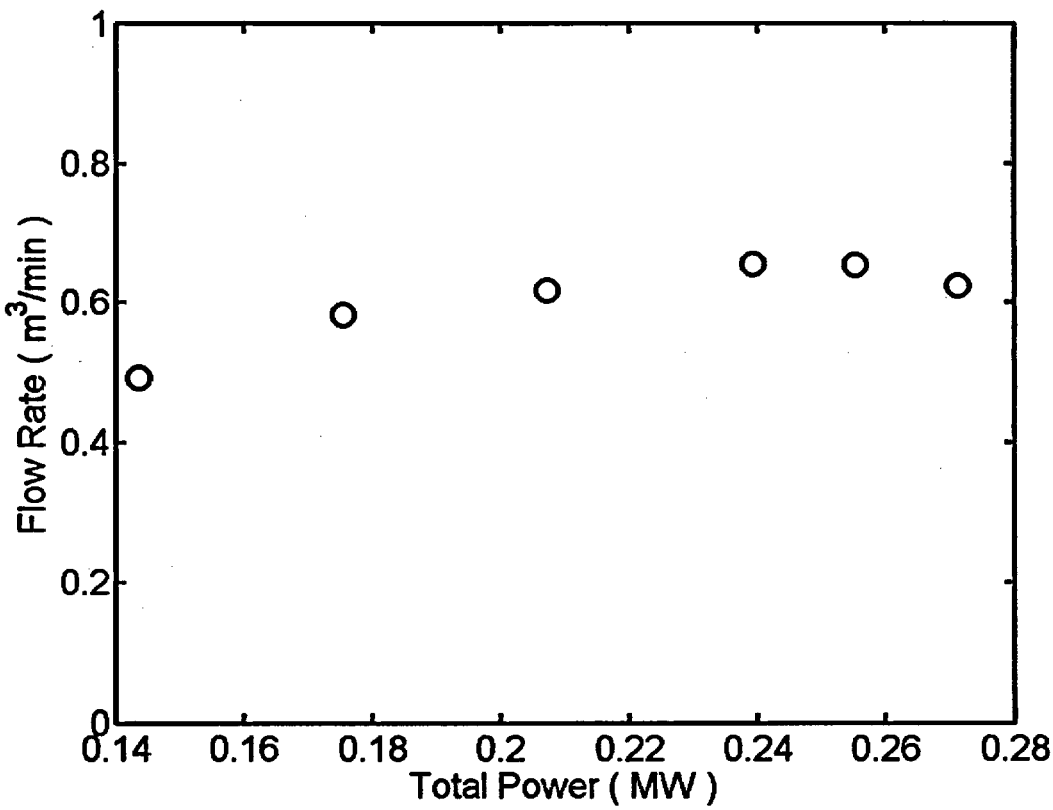

Figure A02.5. Flow rate vs. total input power.

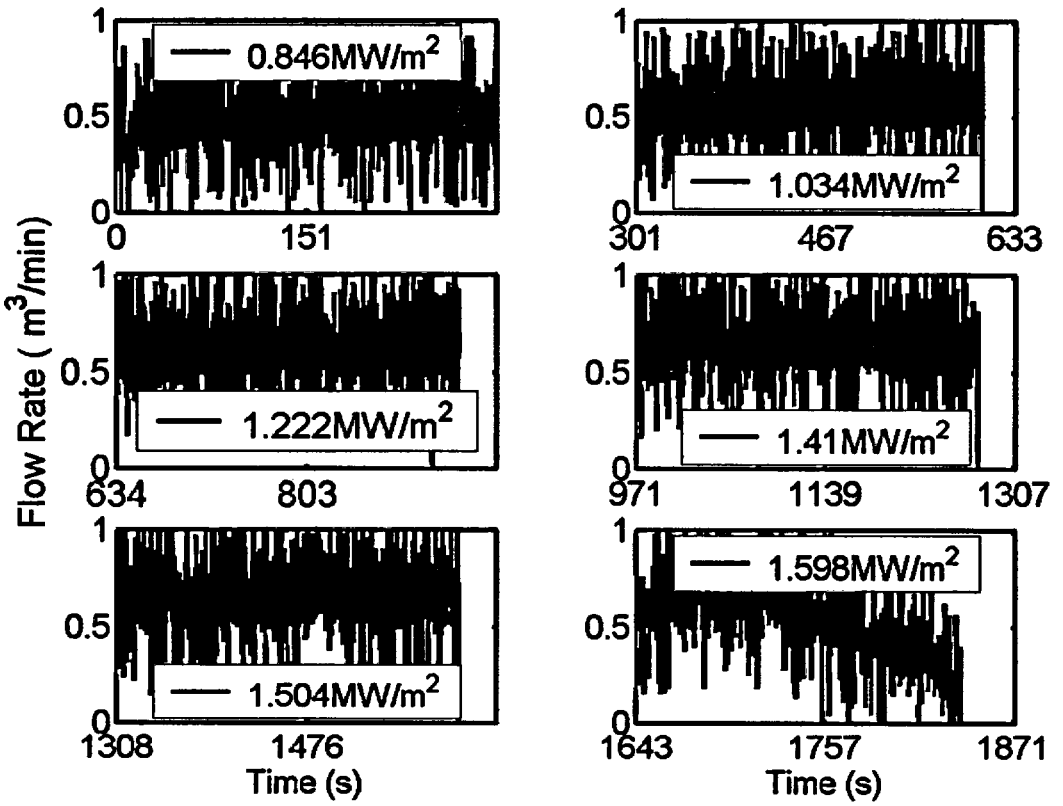

Figure A02.6. Flow rates at different heat fluxes.

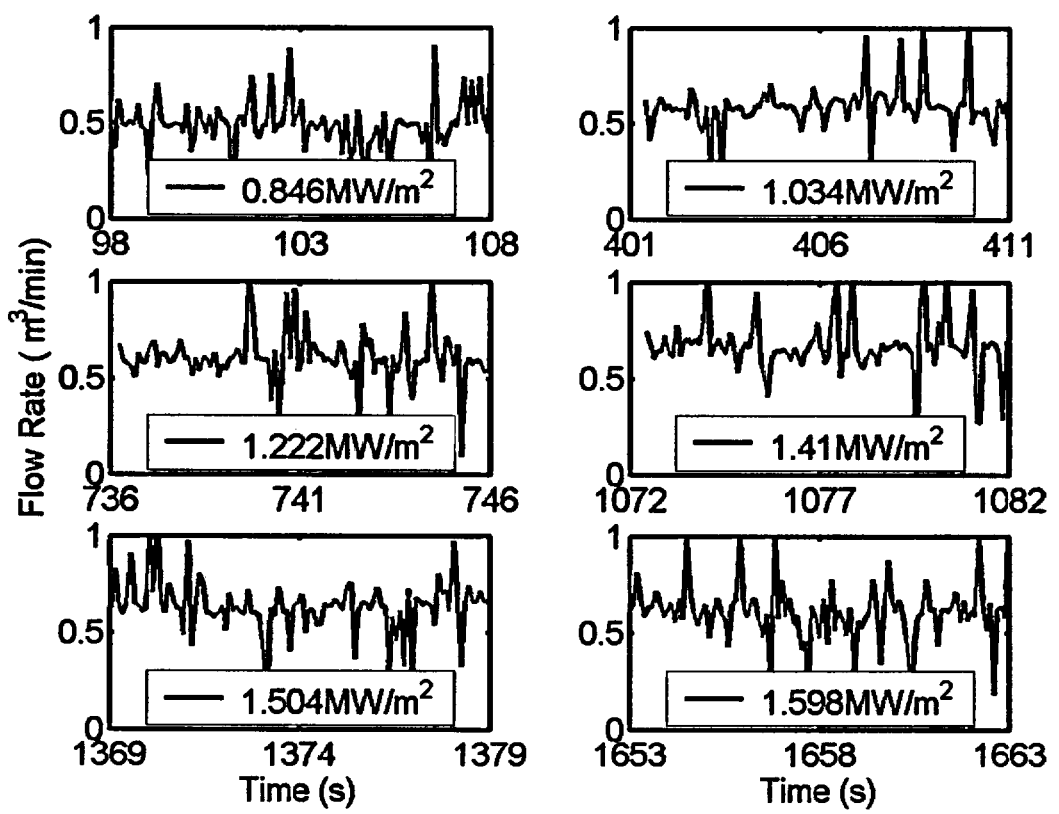

Figure A02.7. Flow rates at different heat fluxes at selected time intervals.

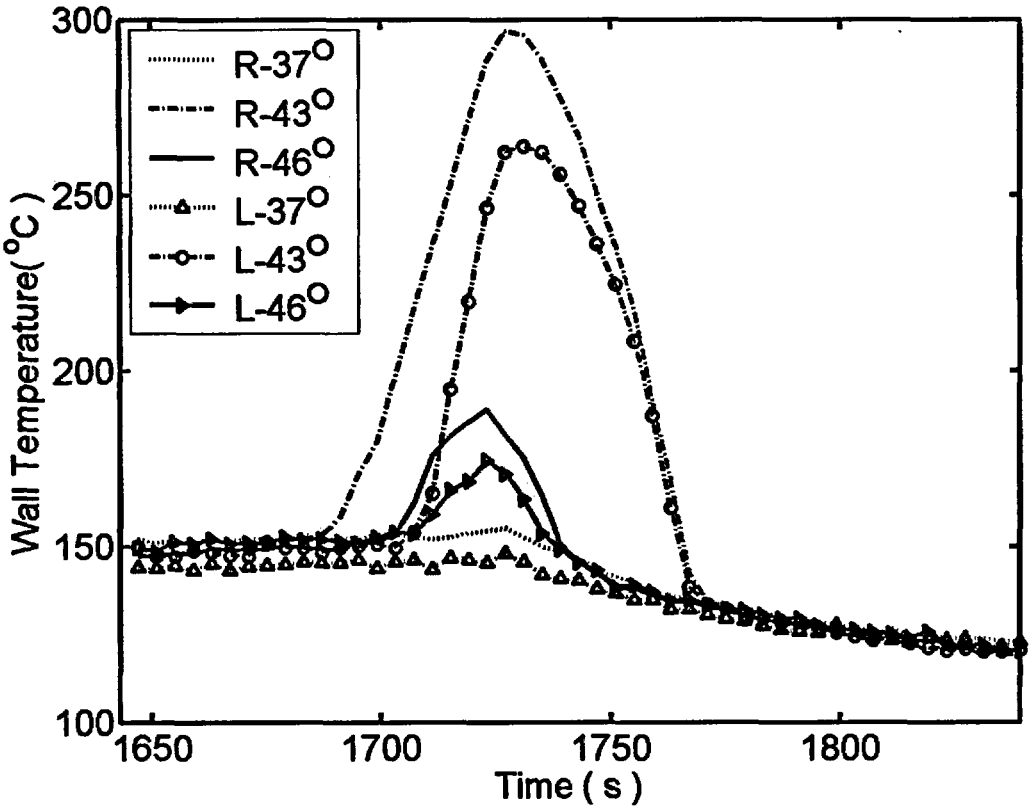

Figure A02.8. Temperature history at CHF.

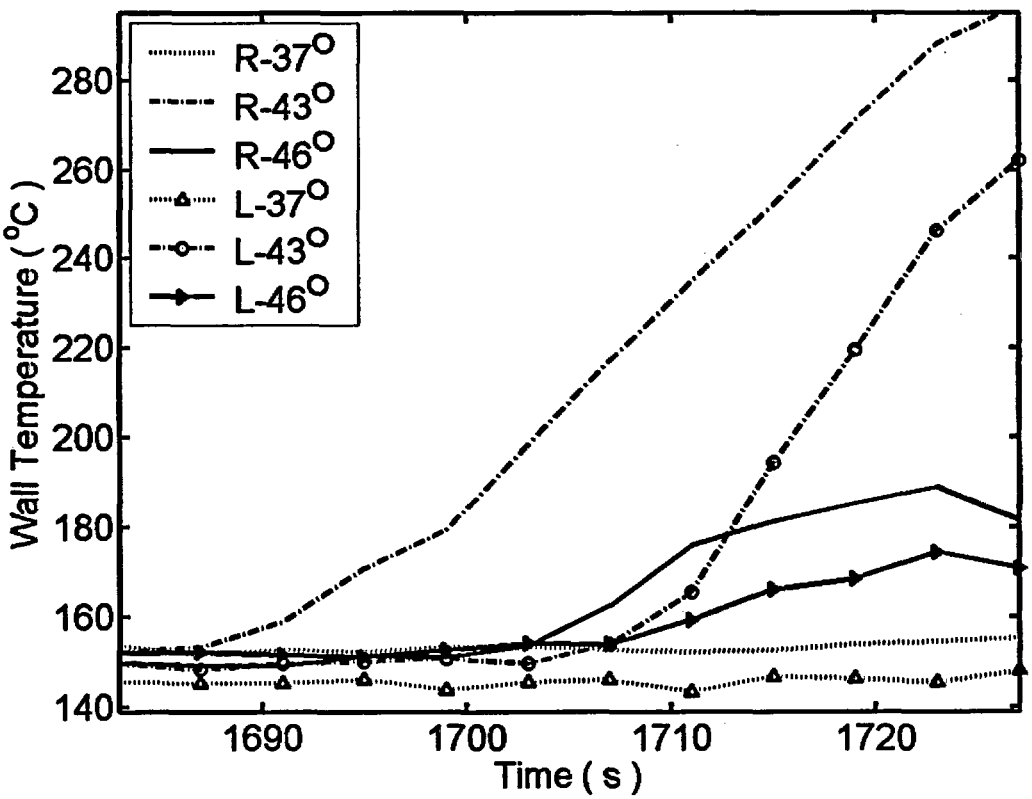

Figure A02.9. Temperature history at CHF in detail.

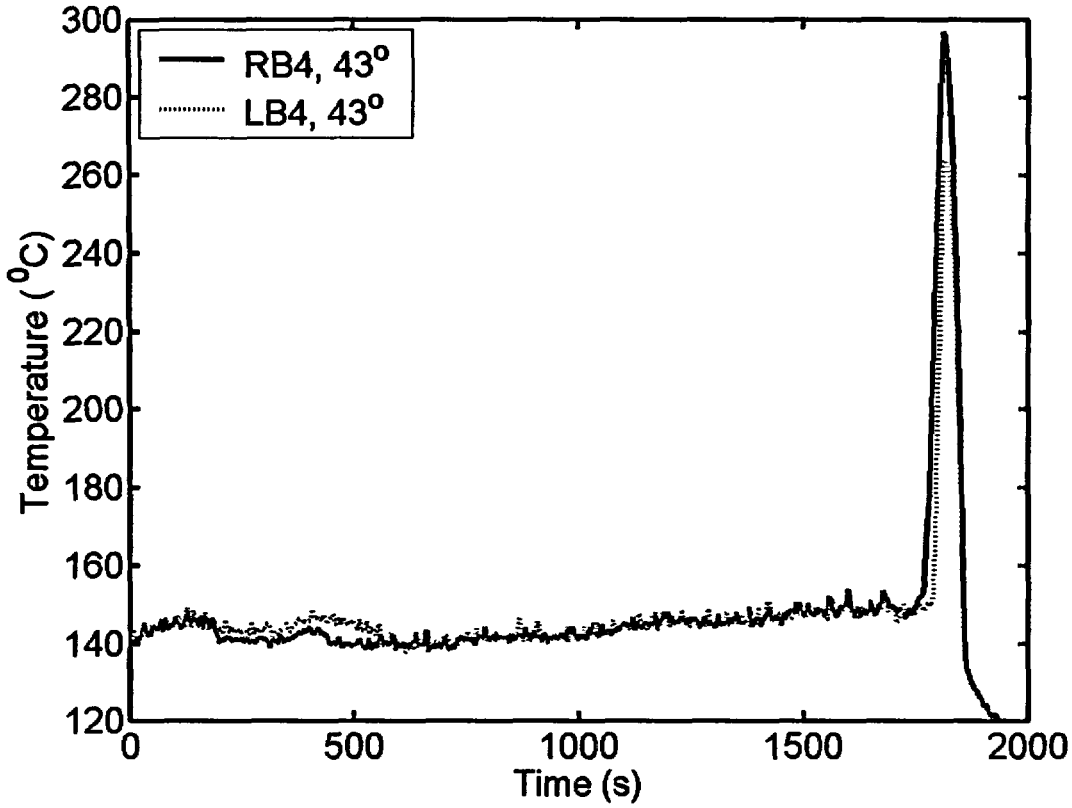

Figure A02.10. Wall temperature history measured by two thermocouples LB4 and RB4.

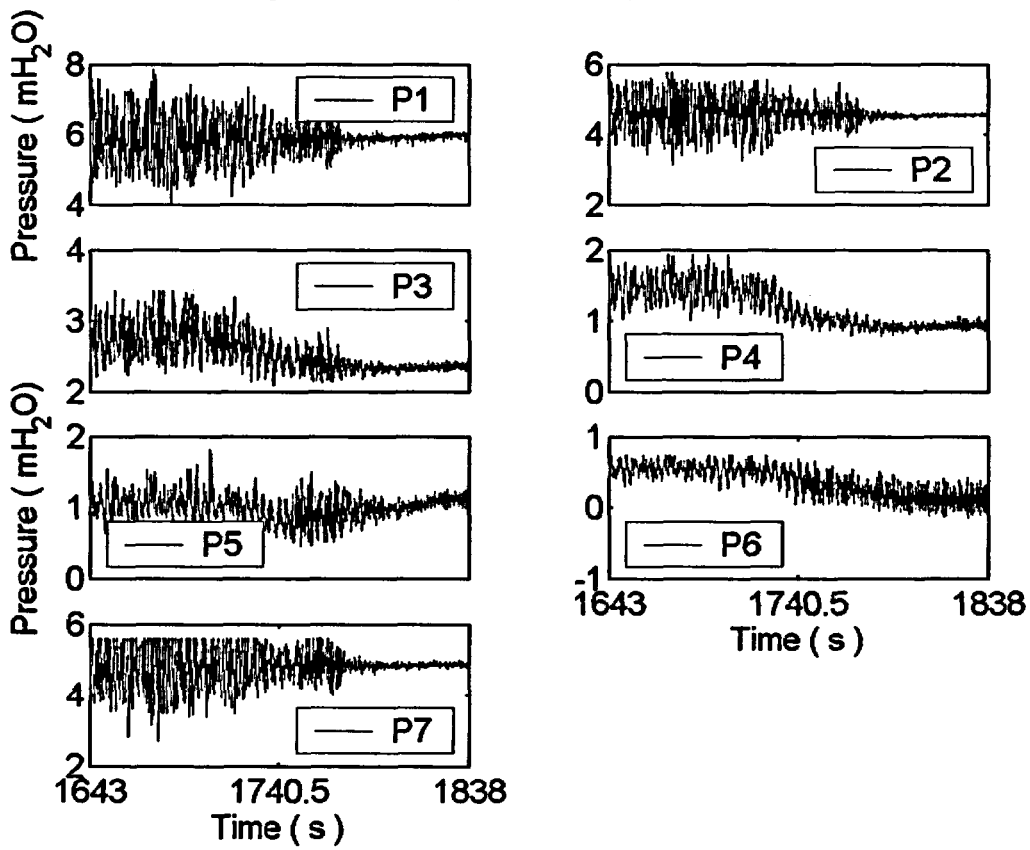

Figure A02.11. Pressure transducer data at q = 1.598 MW/m^2.

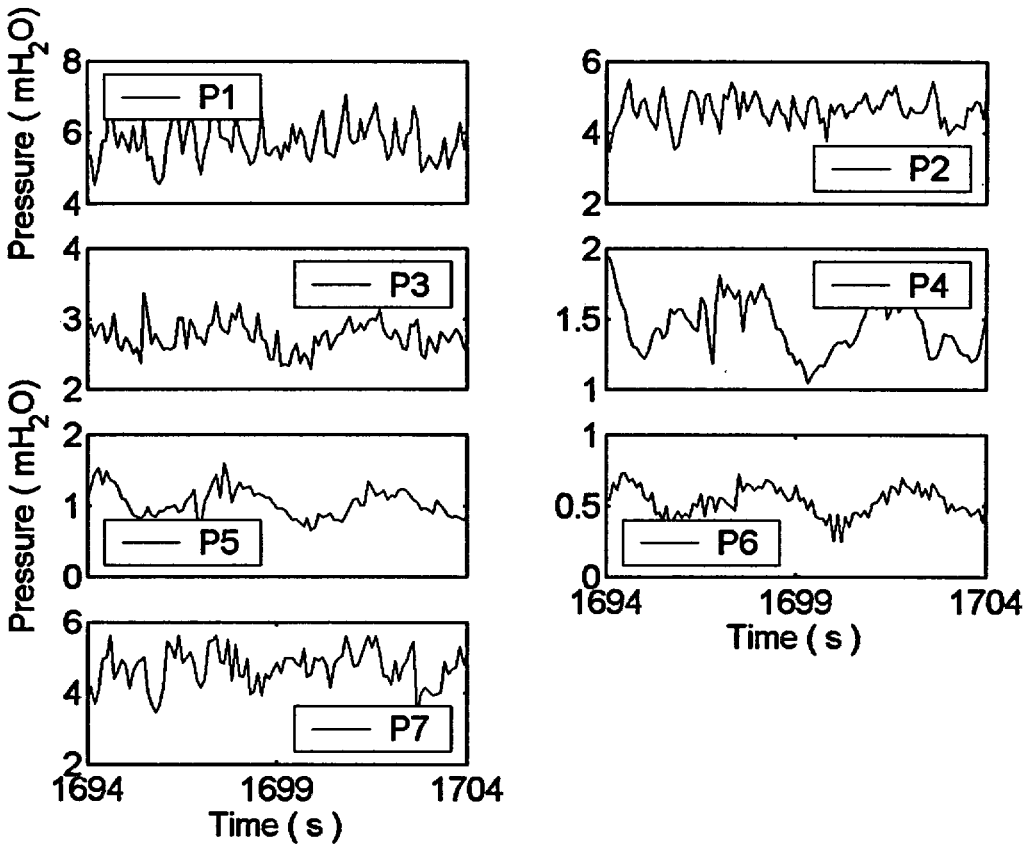

Figure A02.12. Pressure data in detail at q = 1.598 MW/m^2.

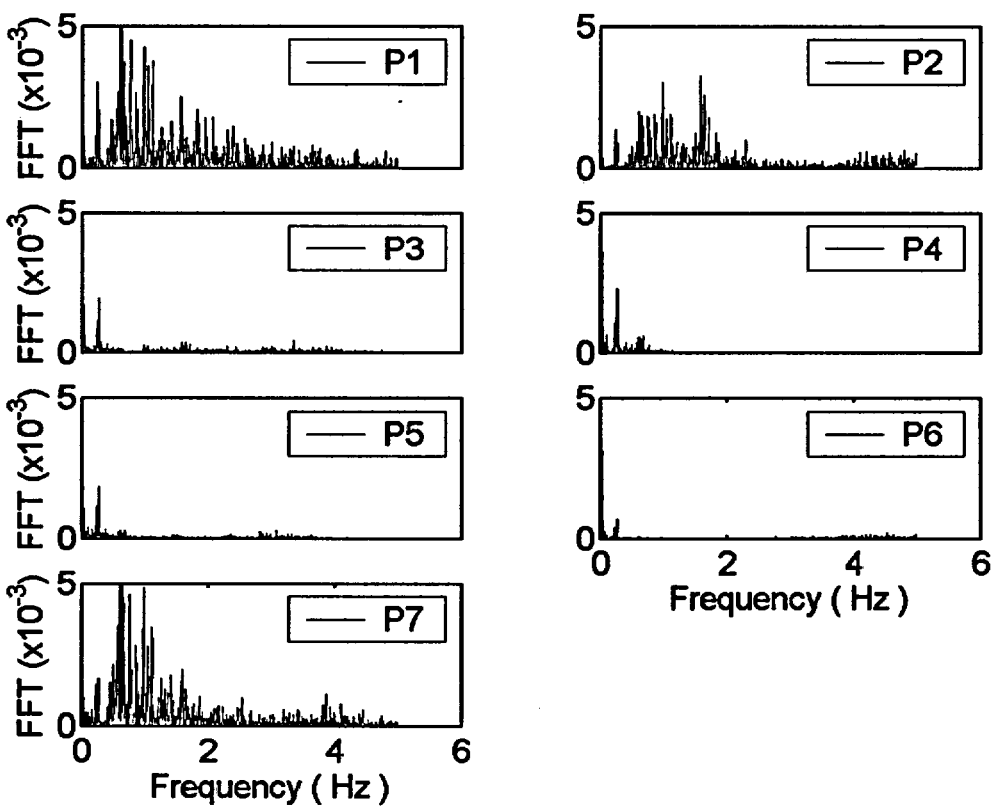

Figure A02.13. FFT of pressure time series at q = 1.598 MW/m^2.

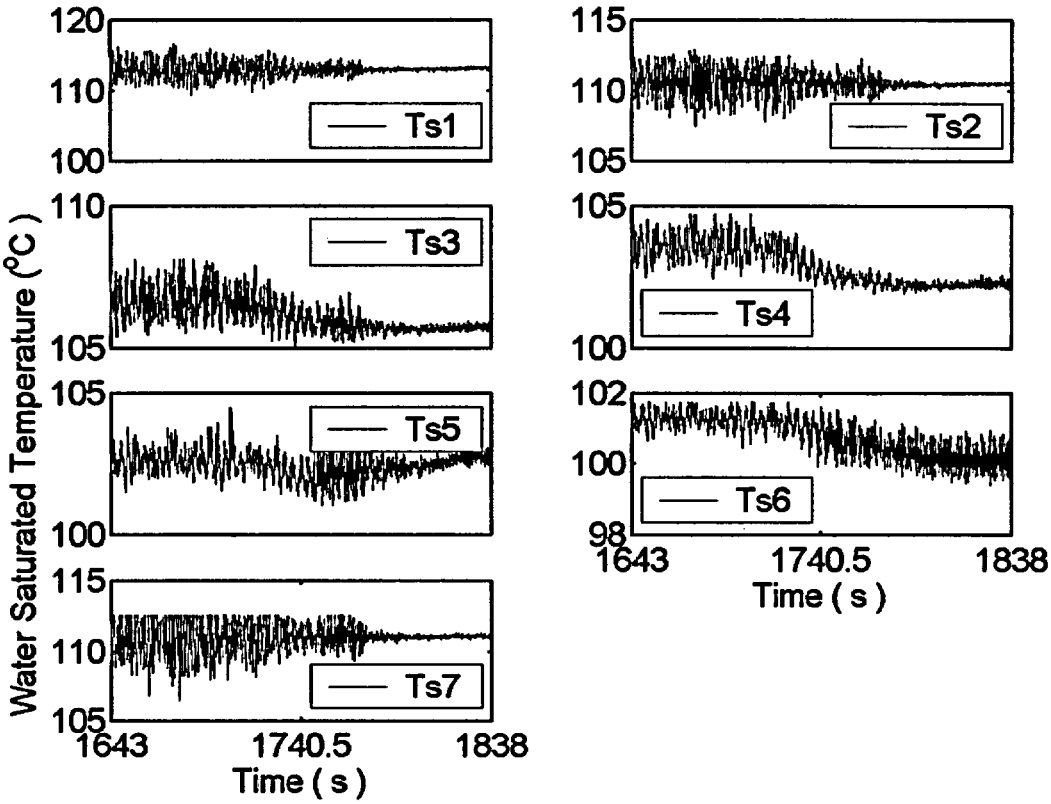

Figure A02.14. Water saturation temperature calculated from local pressure data at q = 1.598 MW/m^2.

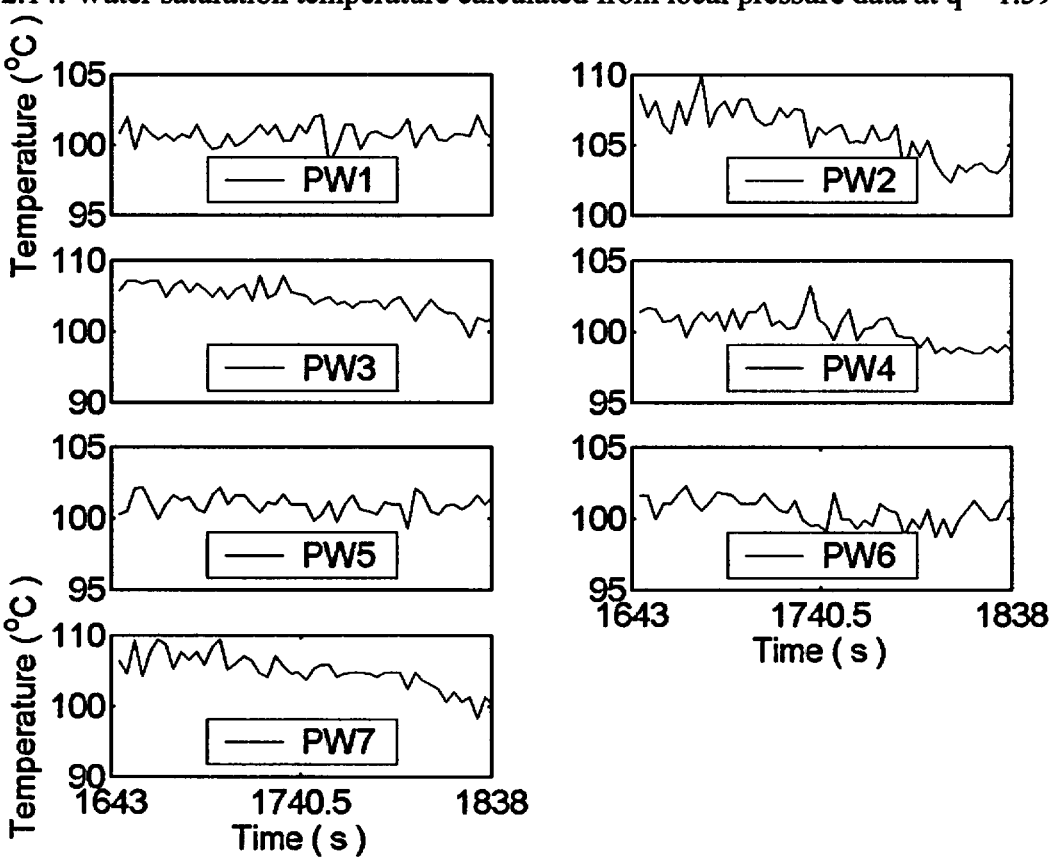

Figure A02.15. Water temperature measured at location of pressure transducer at q = 1.598 MW/m^2.

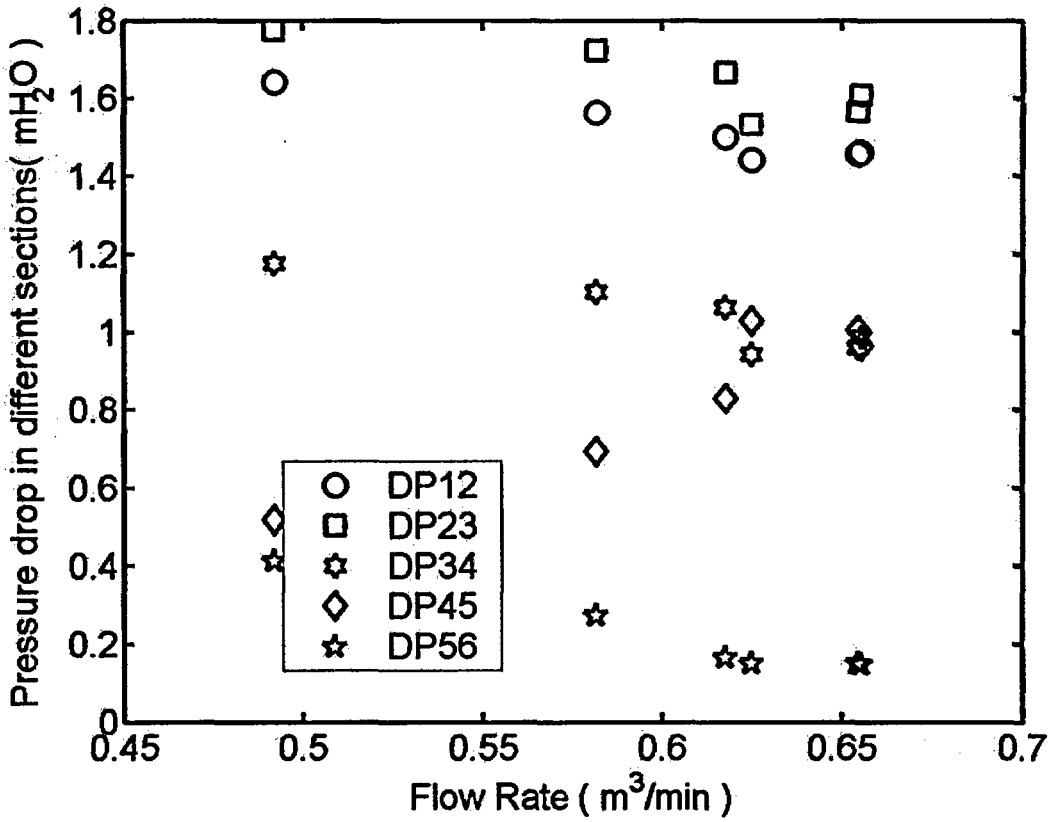

Figure A02.16. Pressure drop vs. flow rate at different heat fluxes.

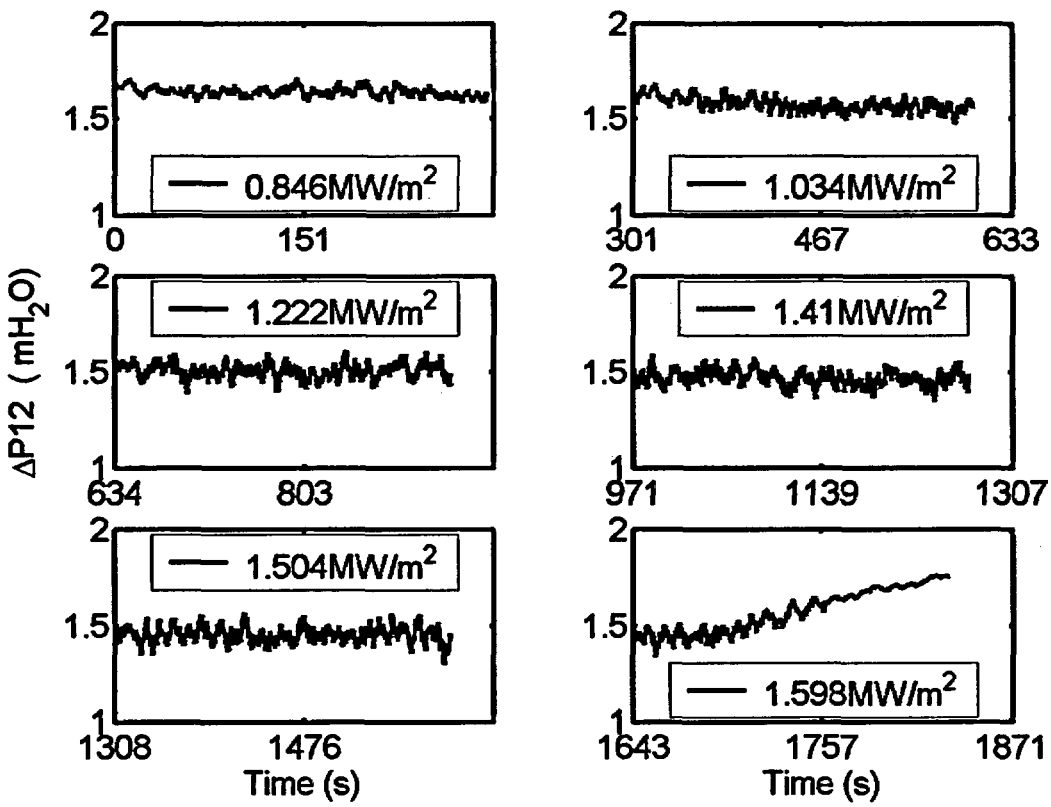

Figure A02.17. Differential Pressure ΔP12 at different heat fluxes.

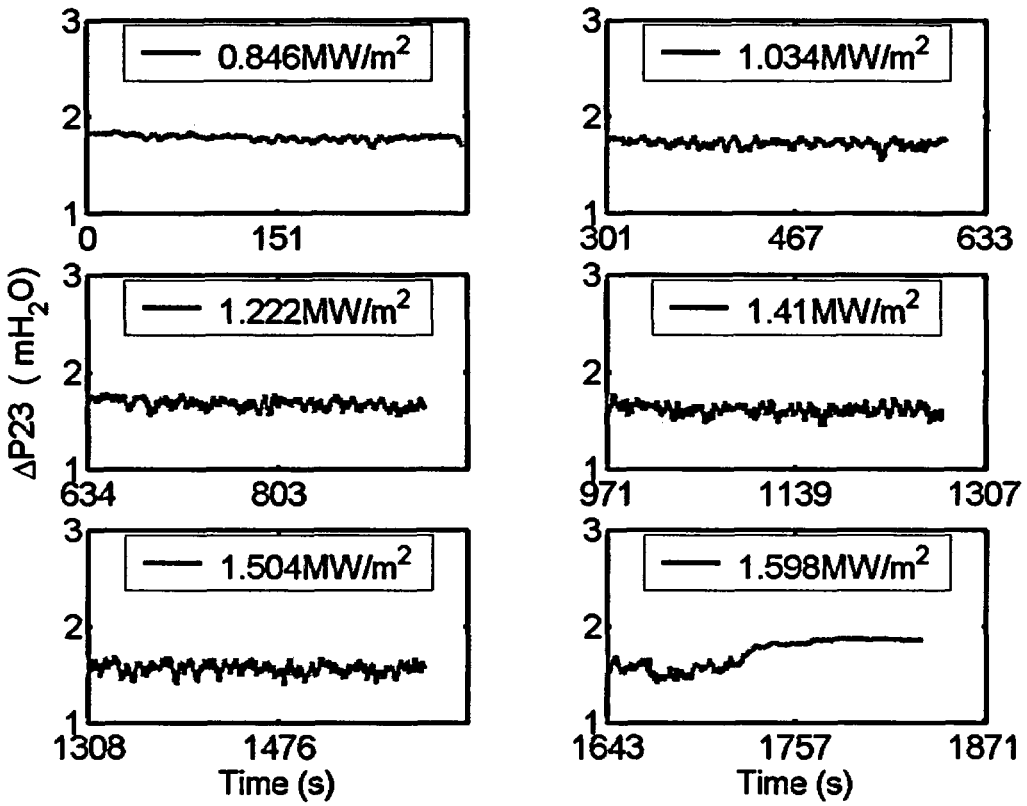

Figure A02.18. Differential Pressure ΔP23 at different heat fluxes.

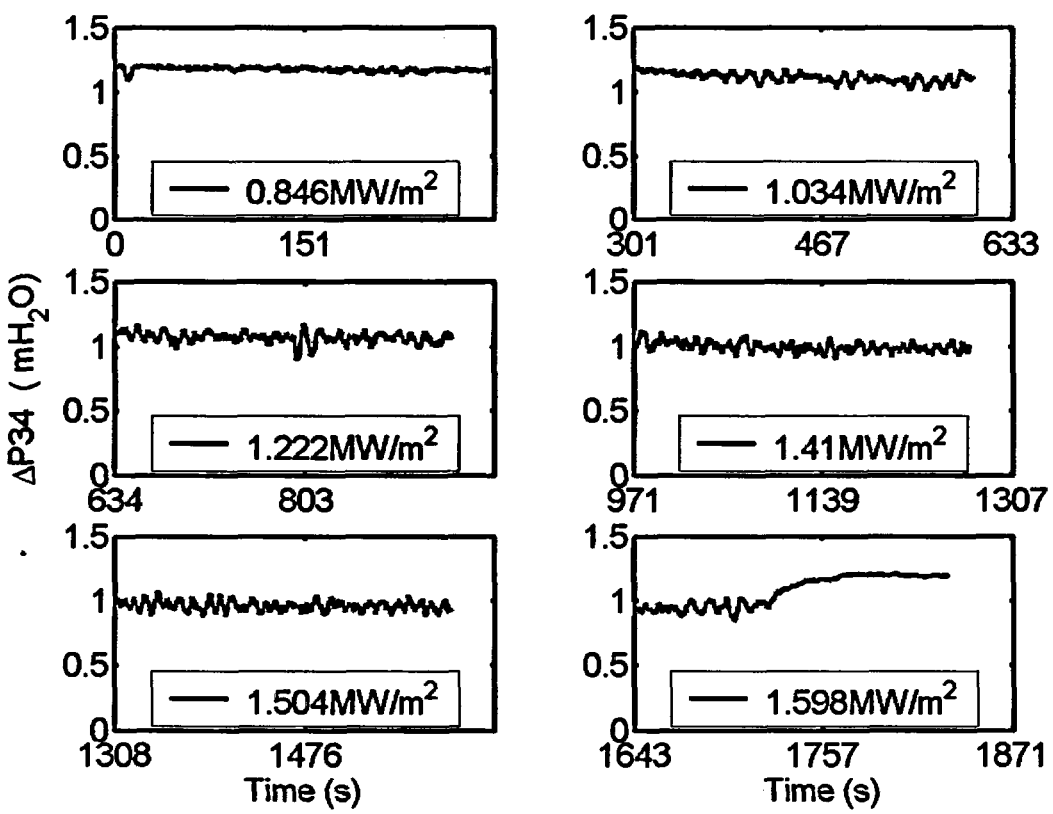

Figure A02.19. Differential Pressure ΔP34 at different heat fluxes.

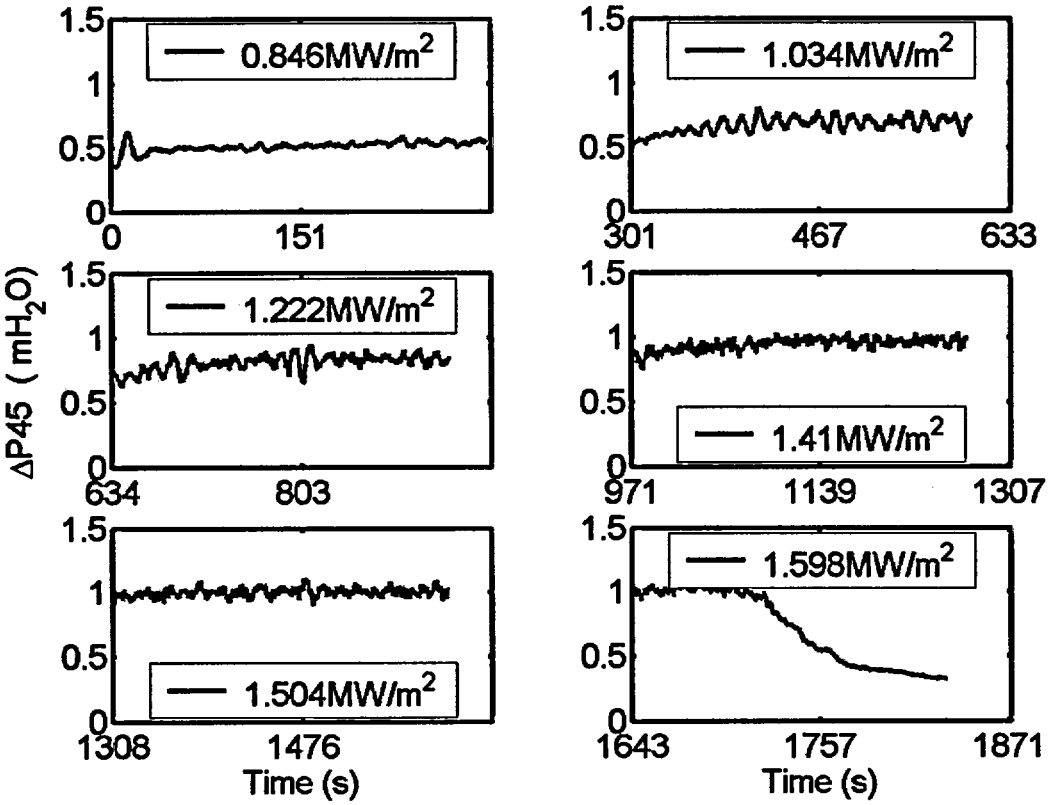

Figure A02.20. Differential Pressure ΔP45 at different heat fluxes.

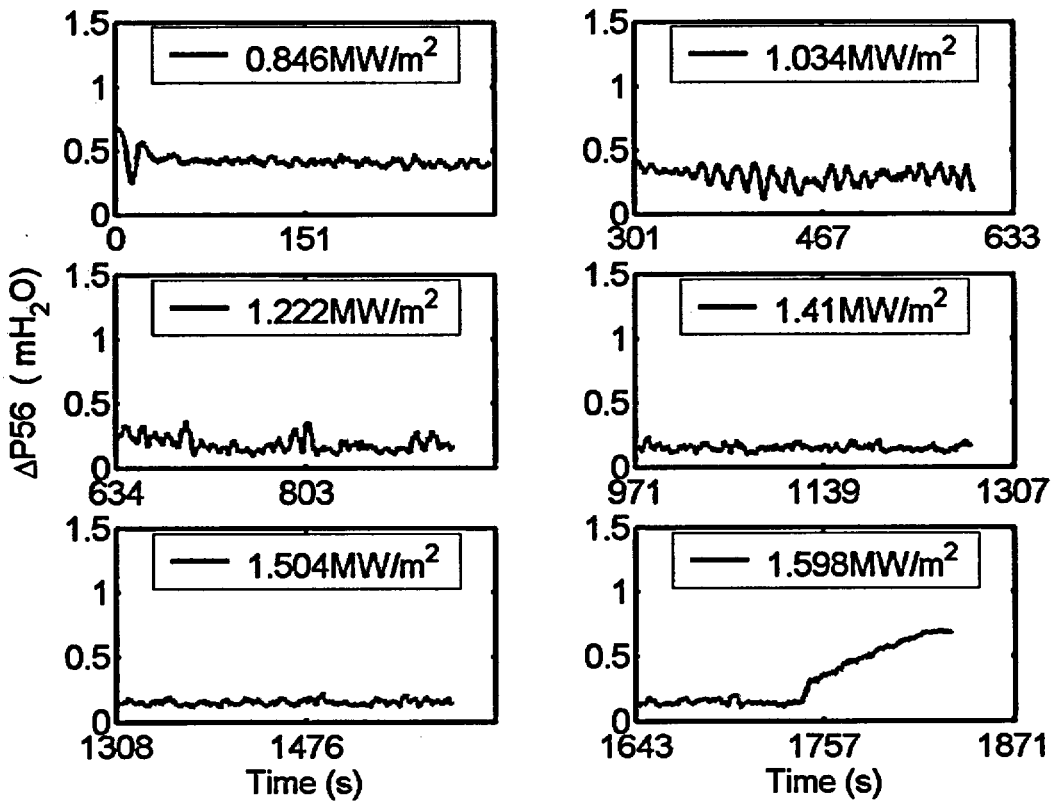

Figure A02.21. Differential Pressure ΔP56 at different heat fluxes.

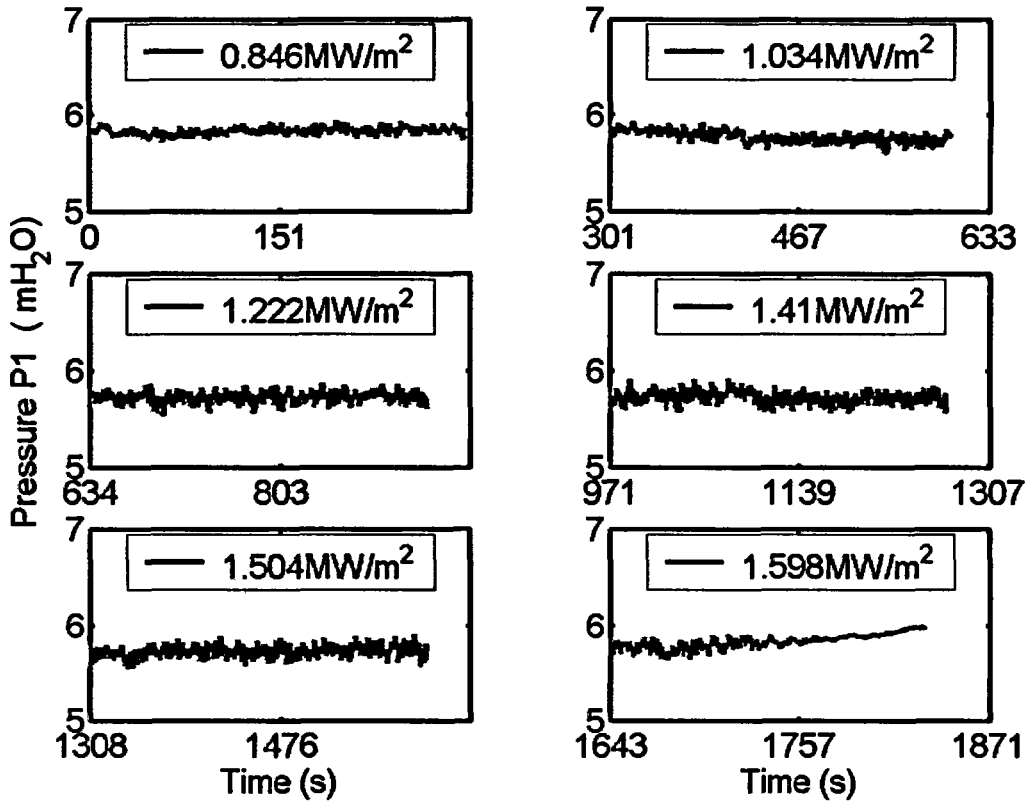

Figure A02.22. Pressure P1 at different heat fluxes.

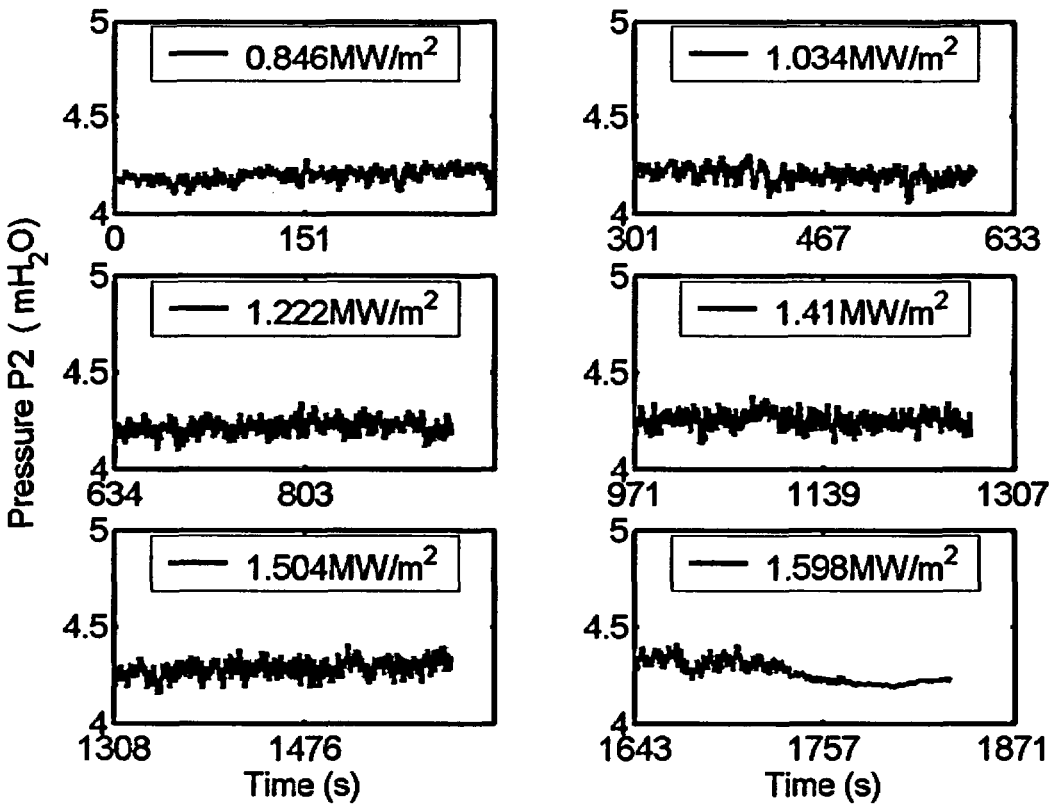

Figure A02.23. Pressure P2 at different heat fluxes.

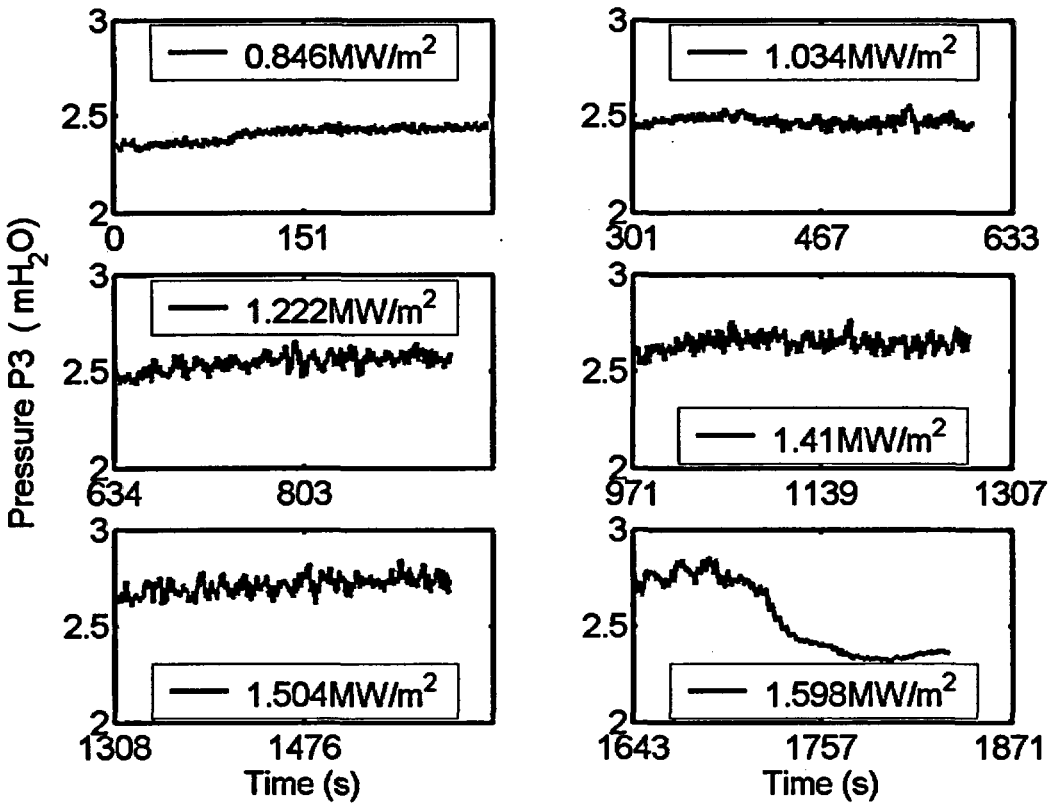

Figure A02.24. Pressure P3 at different heat fluxes.

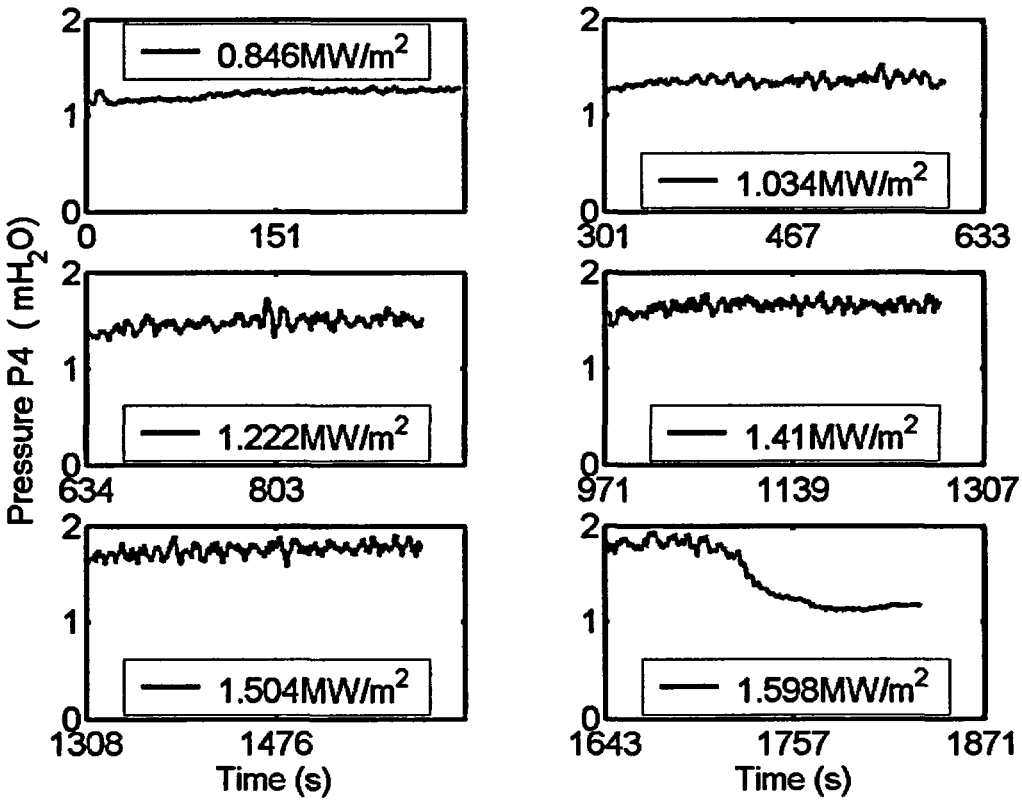

Figure A02.25. Pressure P4 at different heat fluxes.

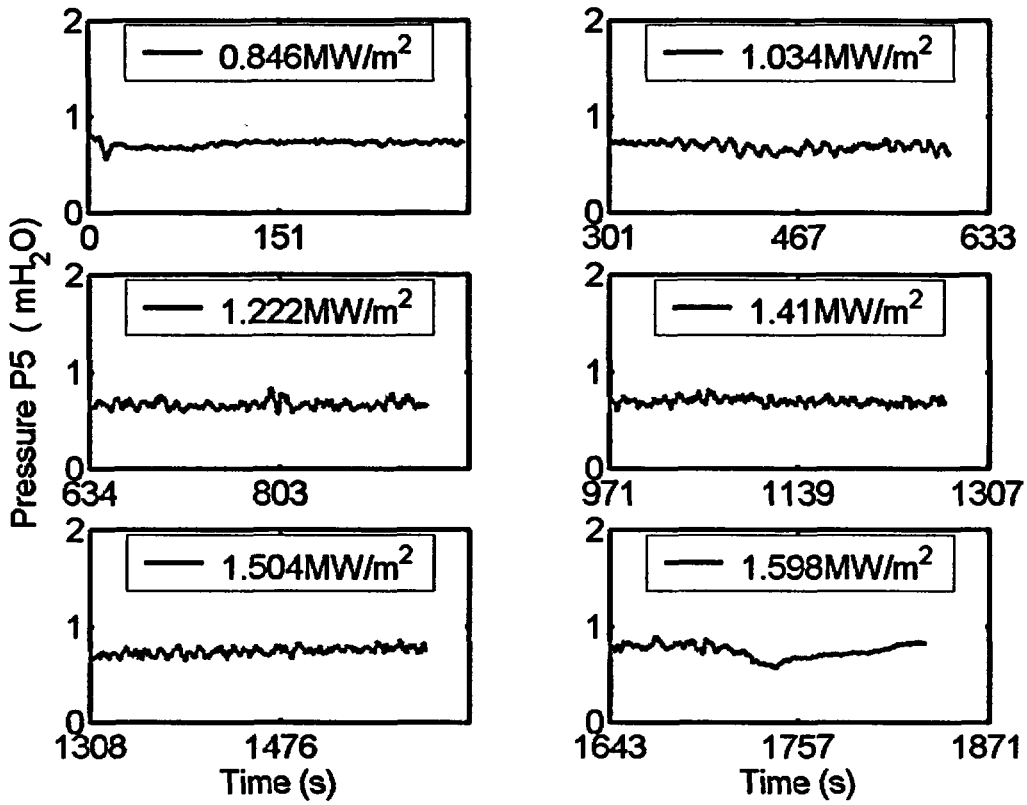

Figure A02.26. Pressure P5 at different heat fluxes.

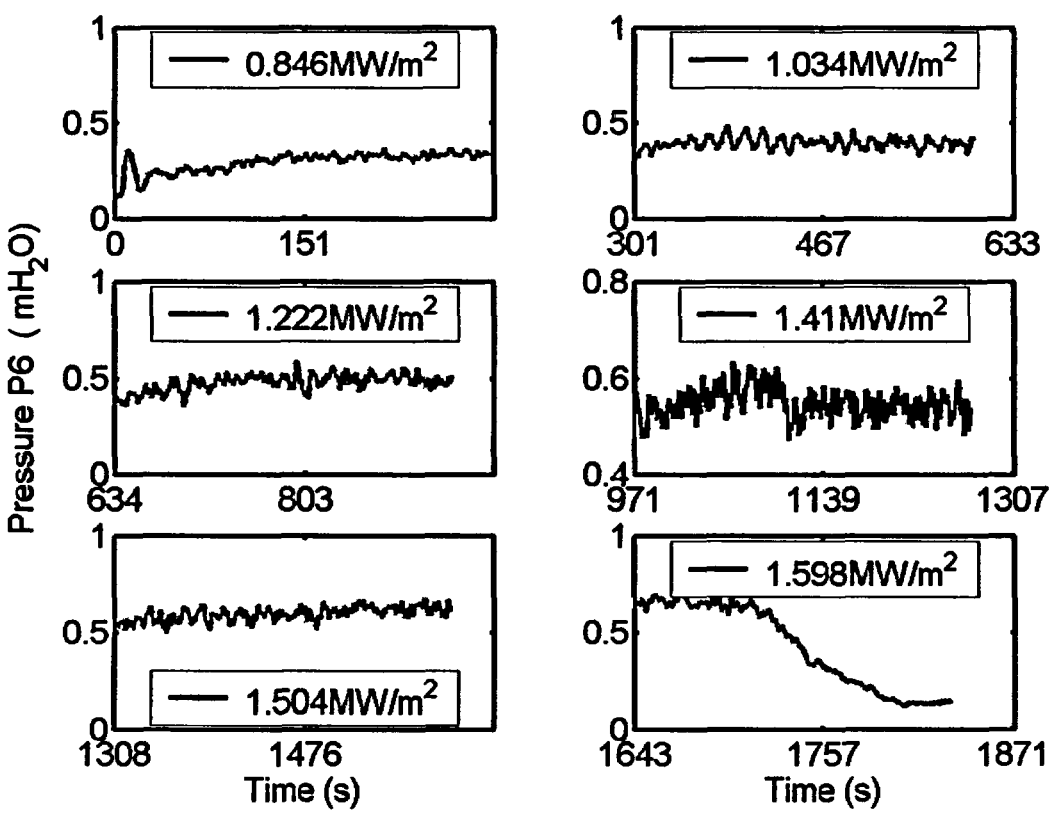

Figure A02.27. Pressure P6 at different heat fluxes.

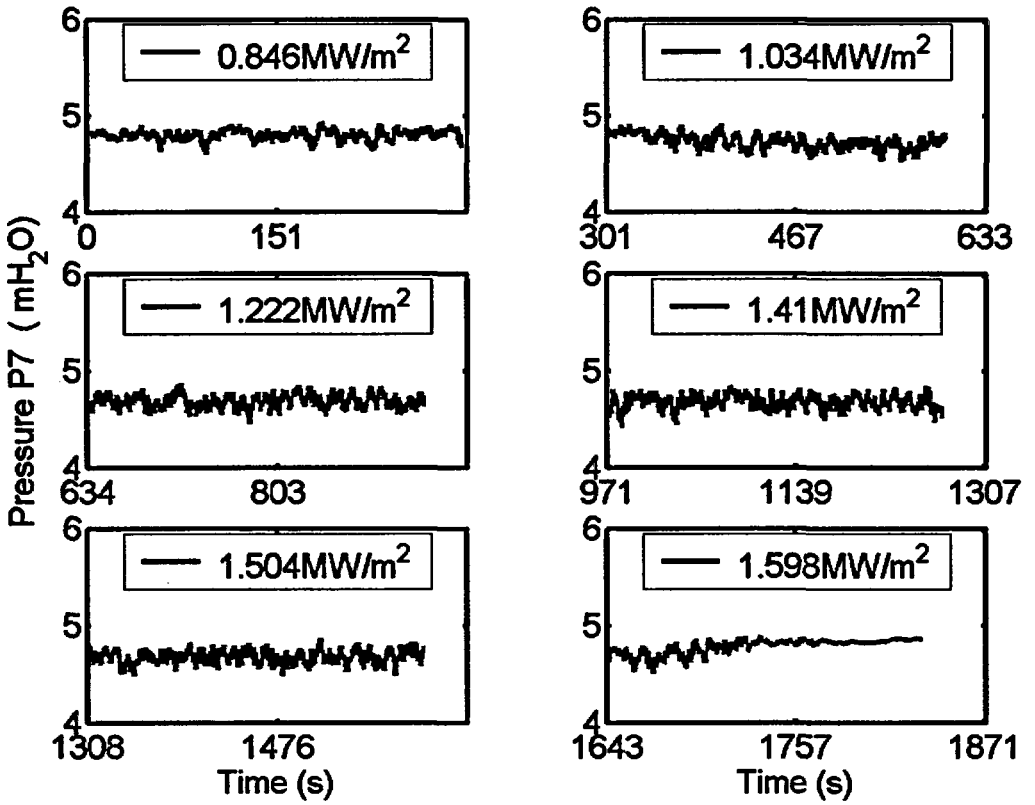

Figure A02.28. Pressure P7 at different heat fluxes.

ID #3

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6	T40B	1672	RC4	71	A	11/09/2002/11:00

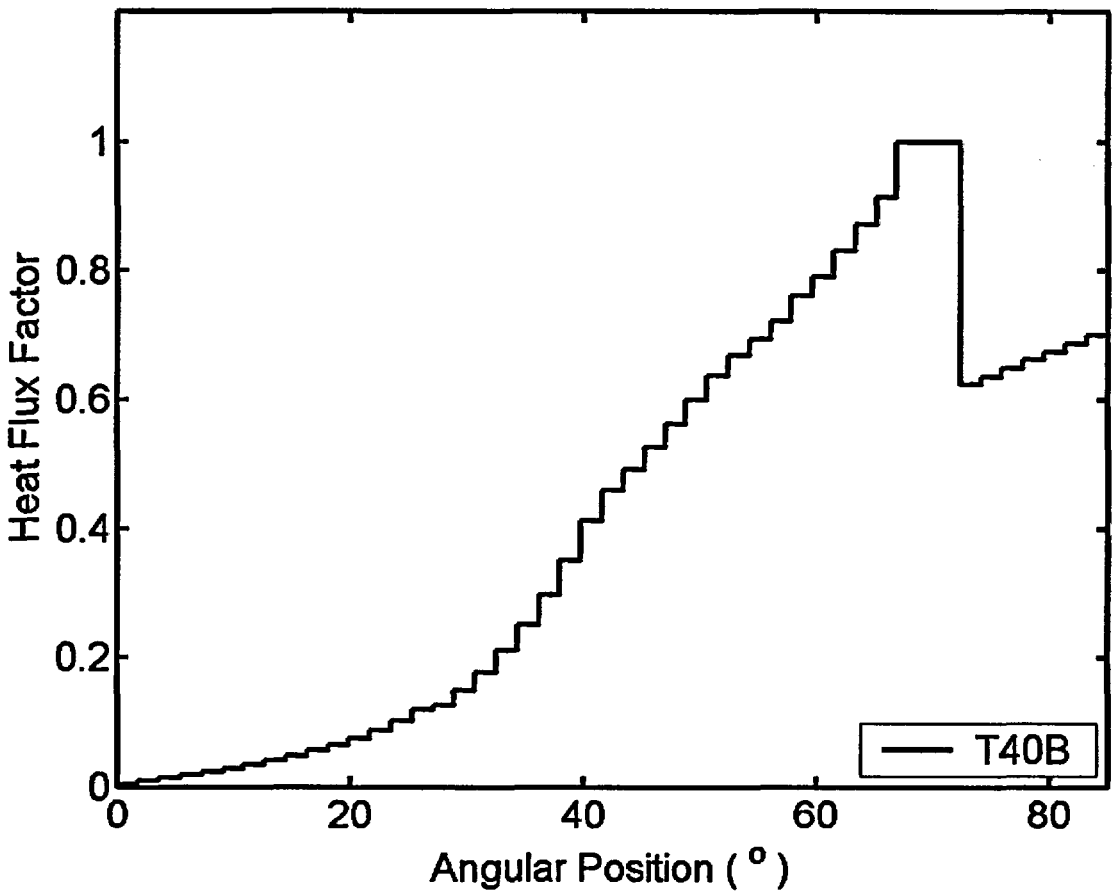

Figure A03.1. Power shape.

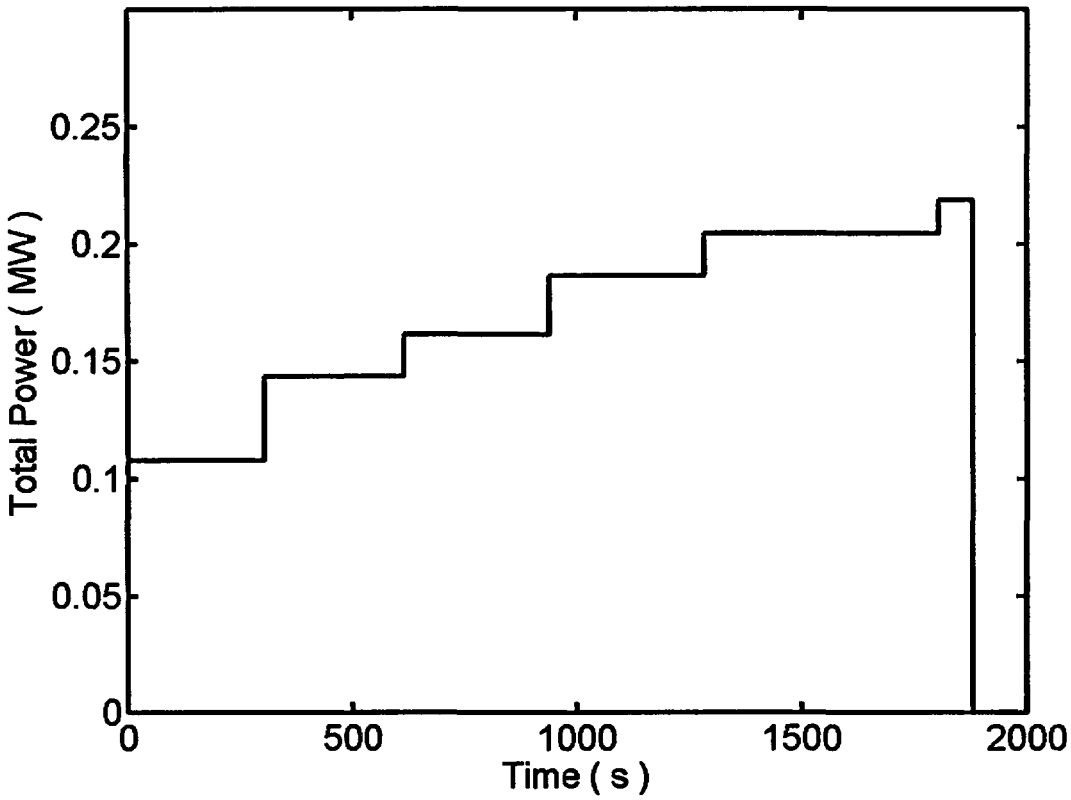

Figure A03.2. Total input power history.

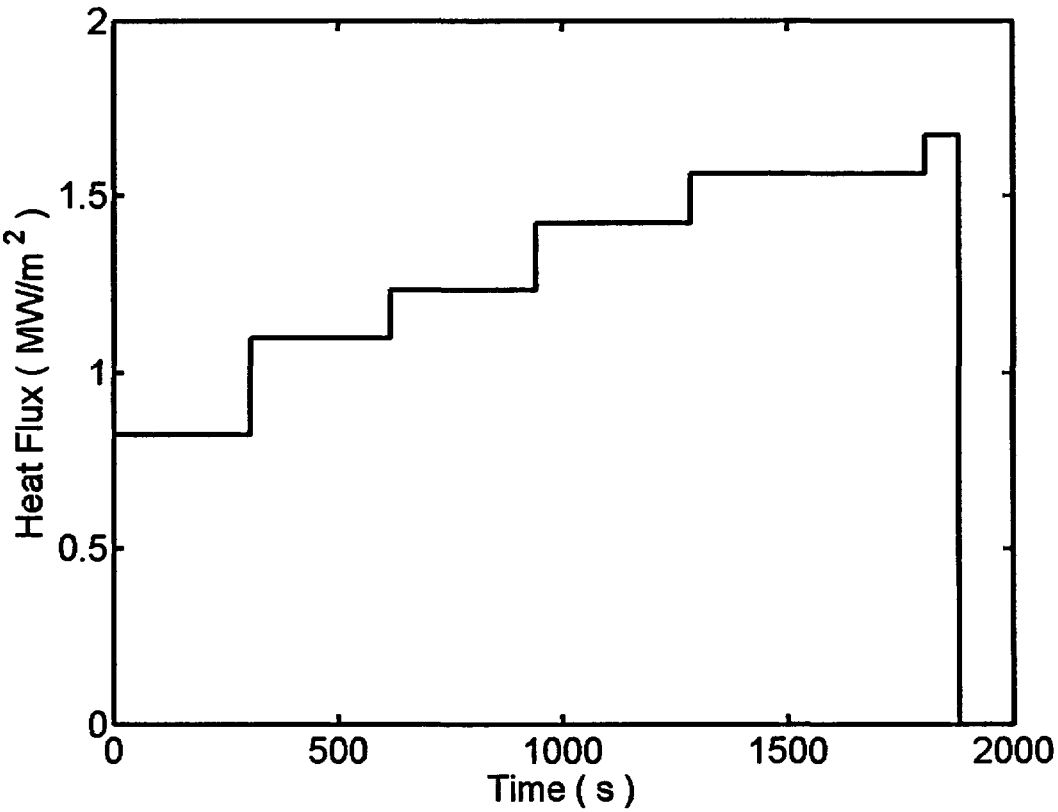

Figure A03.3. Heat flux history.

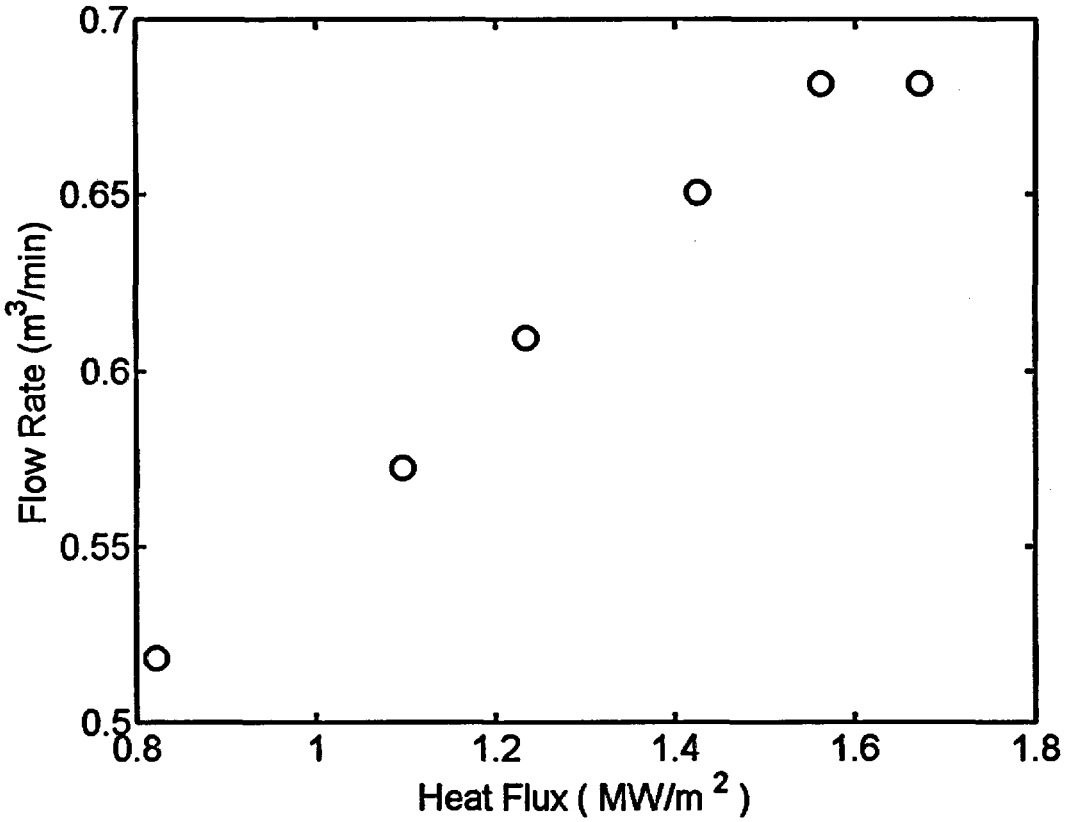

Figure A03.4. Flow rate vs. heat fluxes.

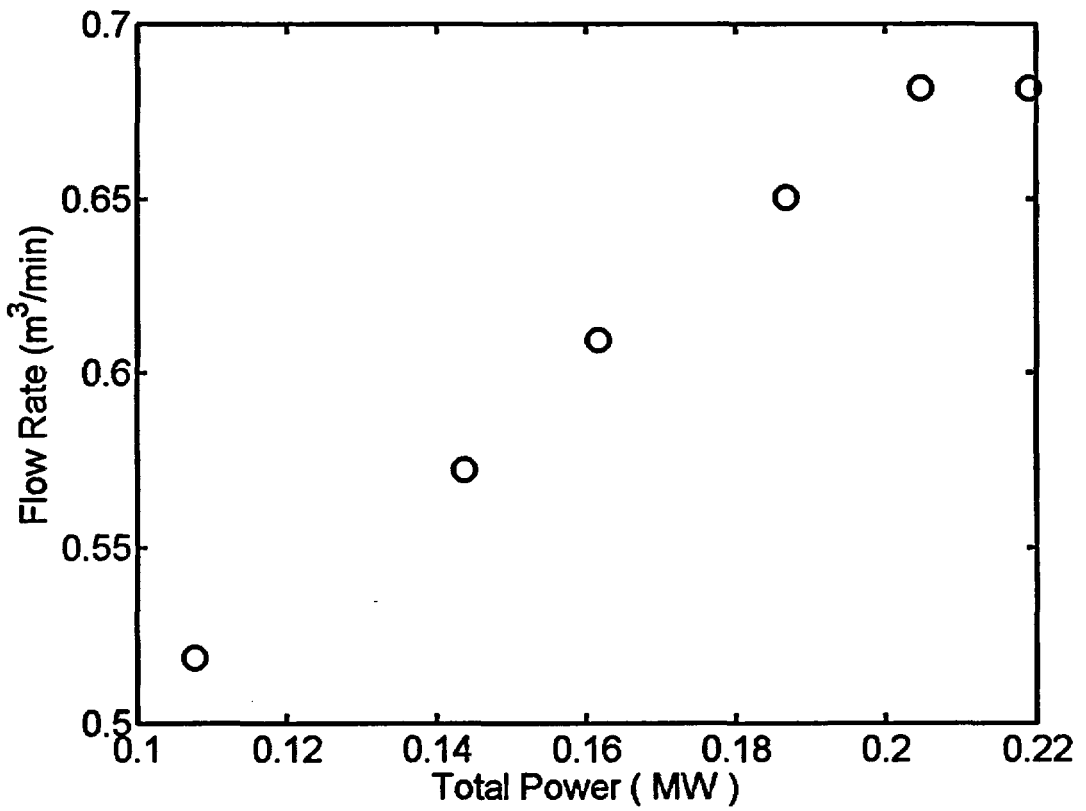

Figure A03.5. Flow rate vs. total input power.

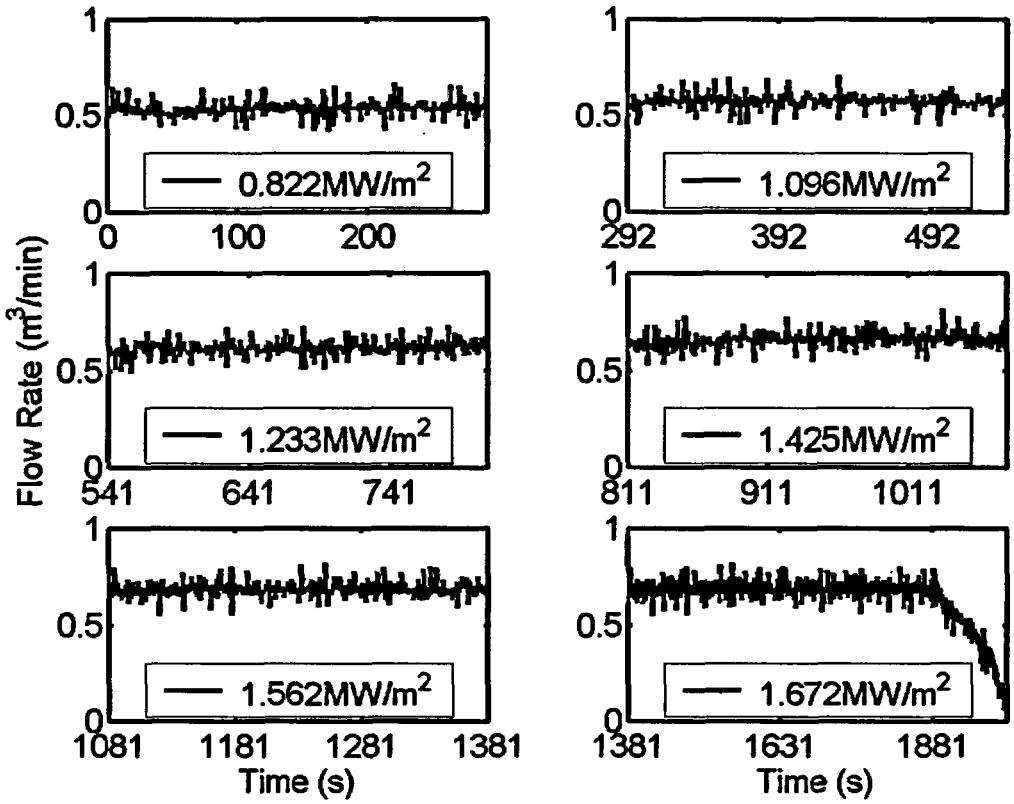

Figure A03.6. Flow rates at different heat fluxes

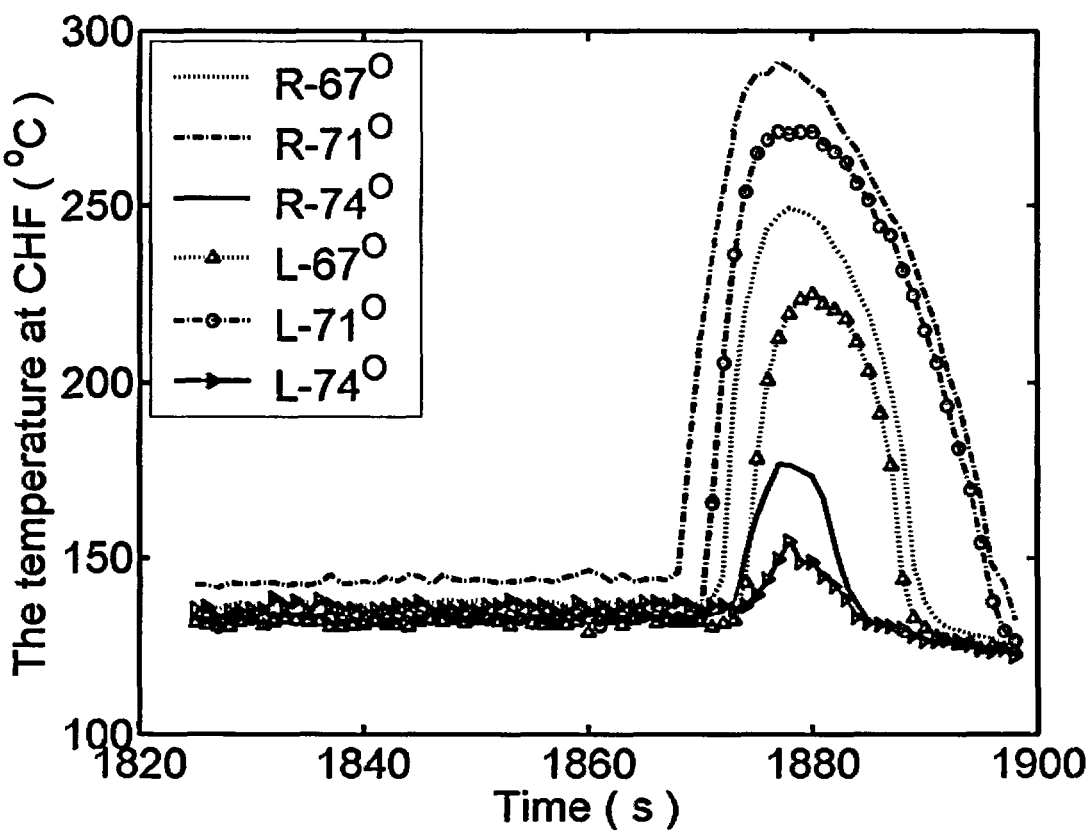

Figure A03.7. Temperature history at CHF.

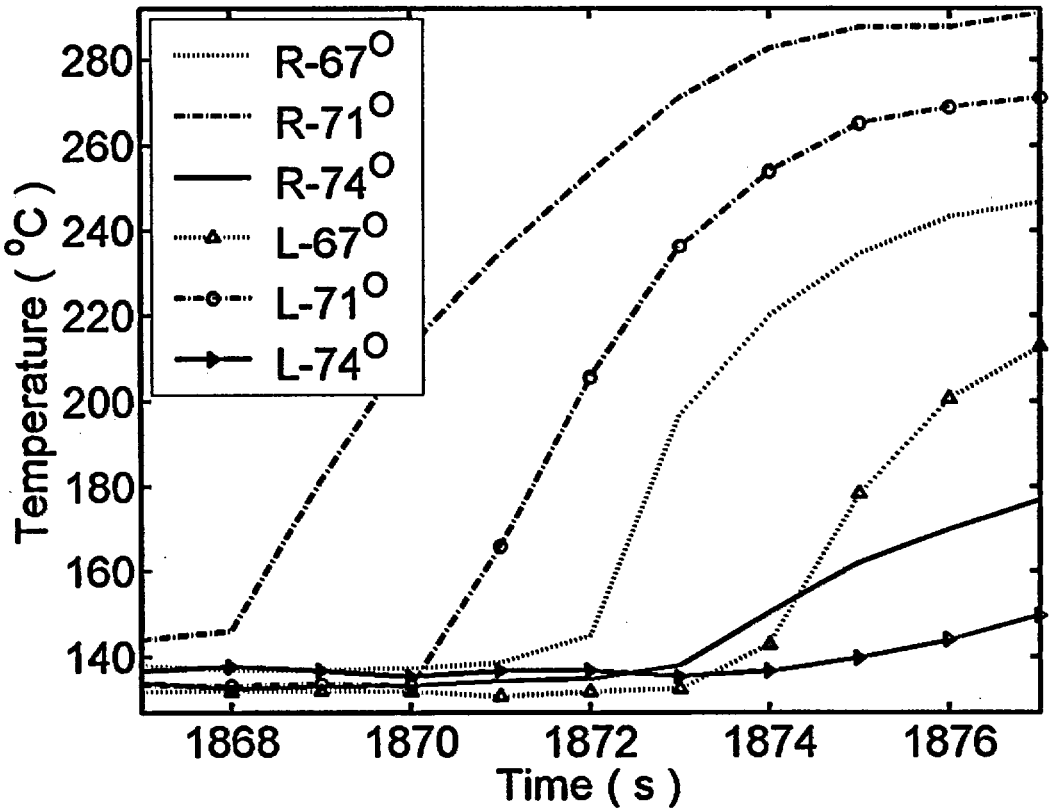

Figure A03.8. Temperature history at CHF in detail.

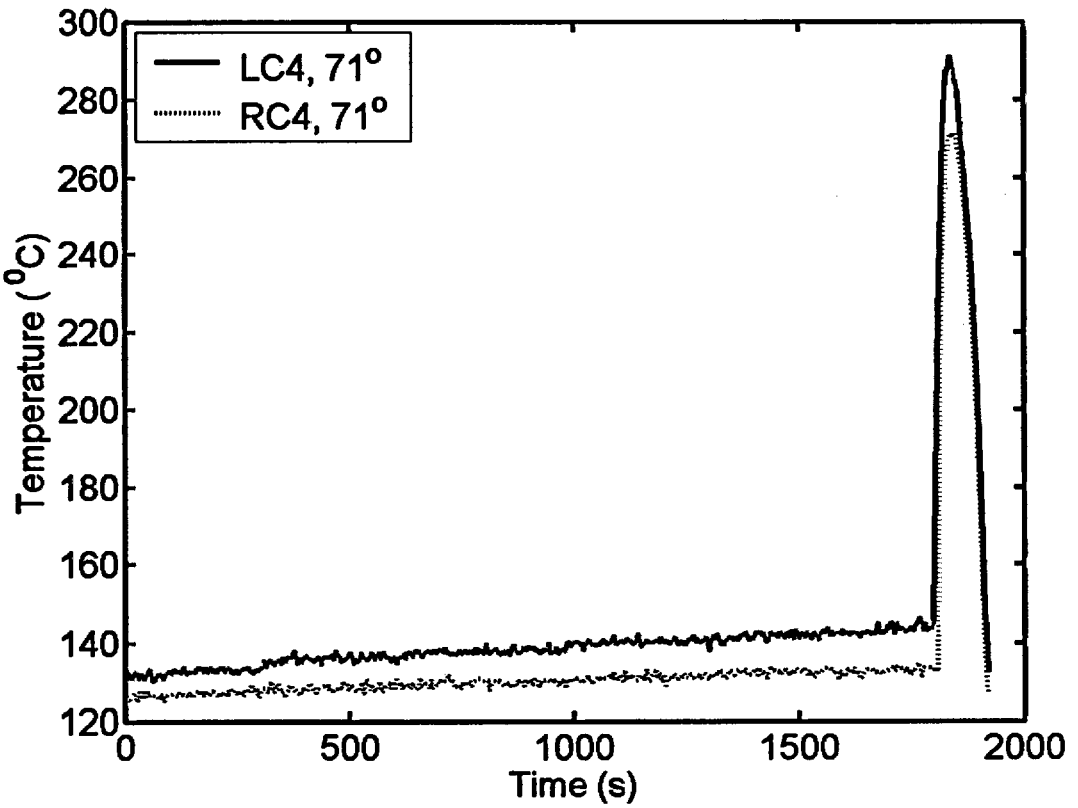

Figure A03.9. Wall temperature history measured by two thermocouples LC4 and RC4.

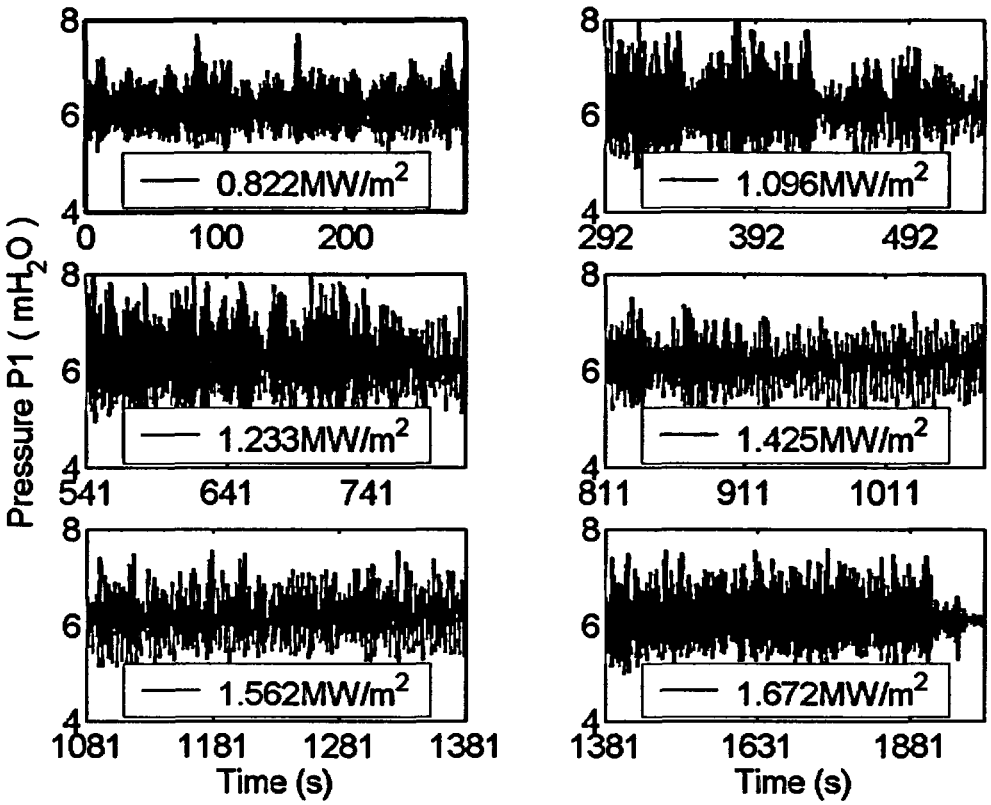

Figure A03.10. Pressure P1 at different heat fluxes.

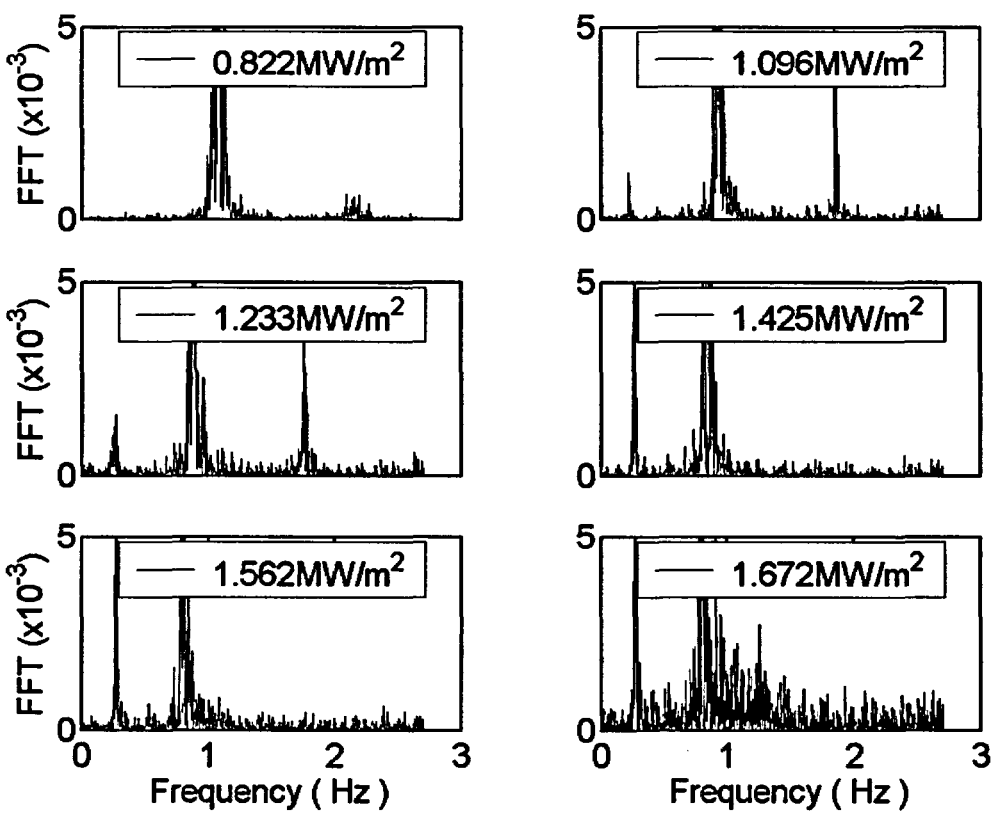

Figure A03.11. FFT of pressure P1 time series at different heat fluxes.

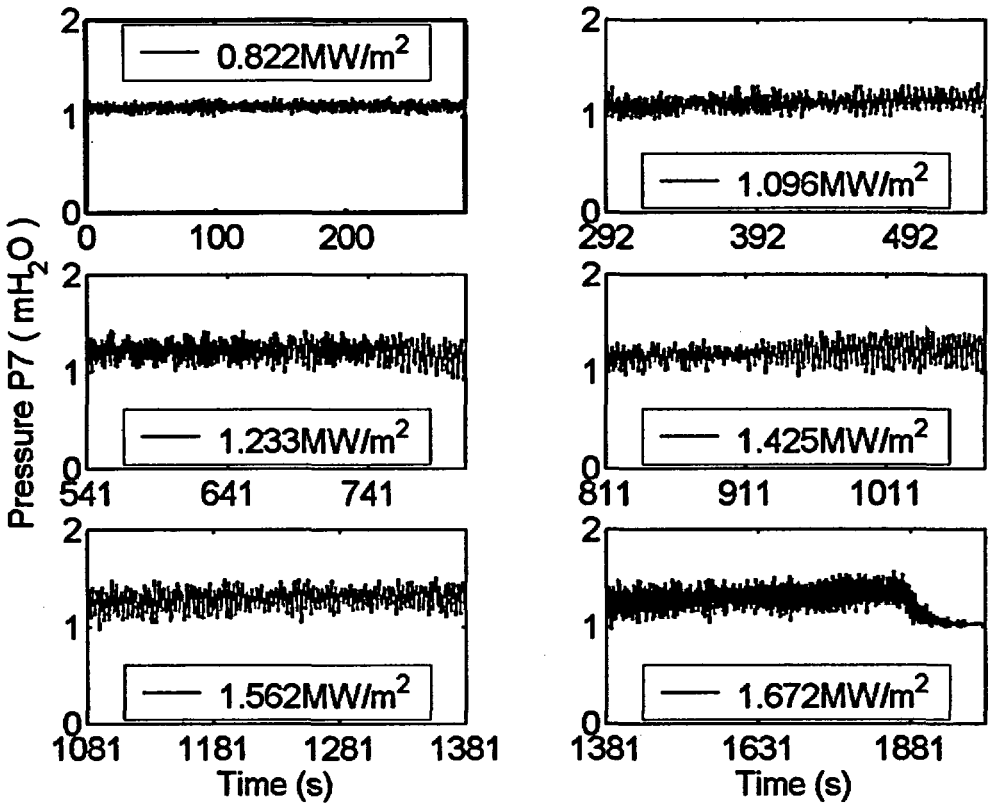

Figure A03.12. Pressure P7 at different heat fluxes.

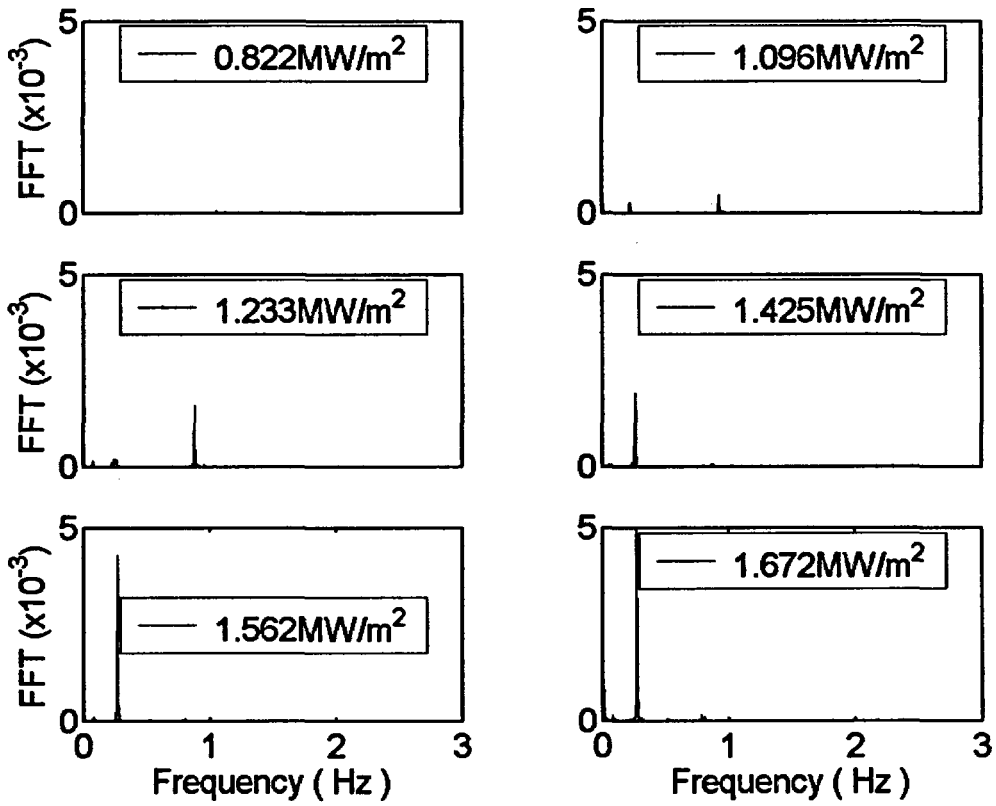

Figure A03.13. FFT of pressure P7 time series at different heat fluxes.

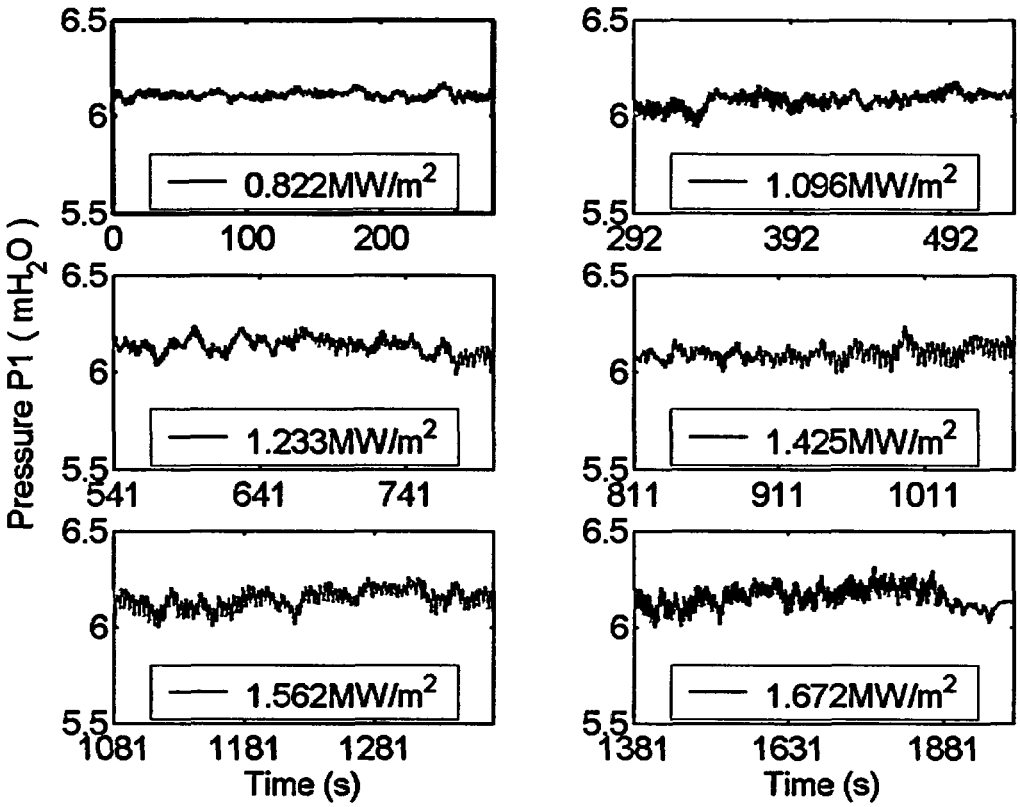

Figure A03.14. Pressure P1 after 50 point slide average.

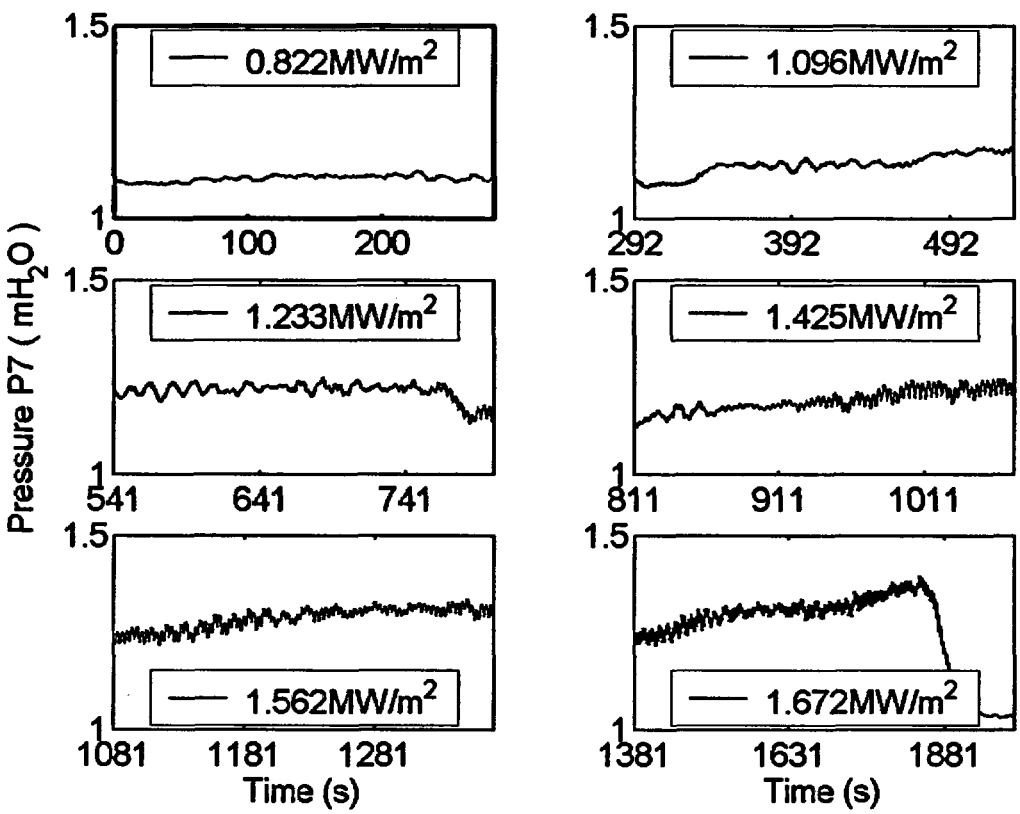

Figure A03.15. Pressure P7 after 50 point slide average.

ID #4

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T40B	1782	LC4	71	B	11/27/2002/12:50

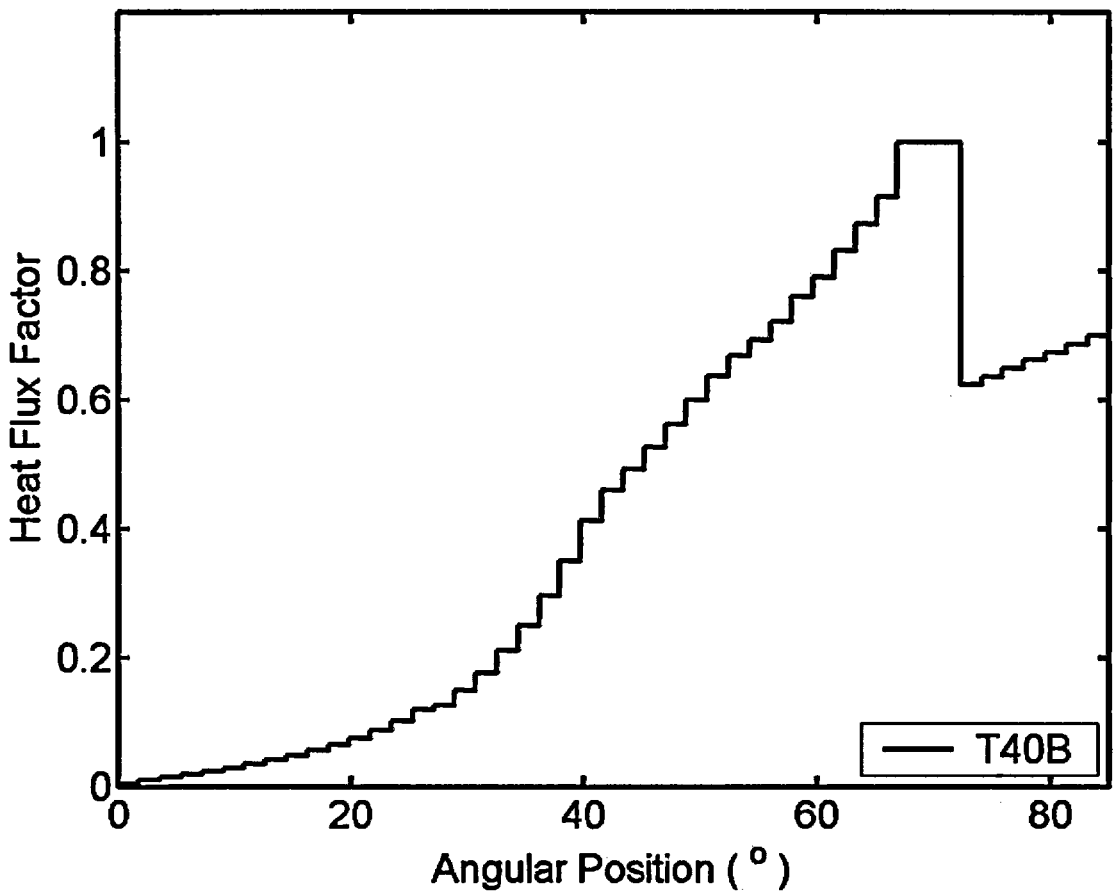

Figure A04.1. Power shape.

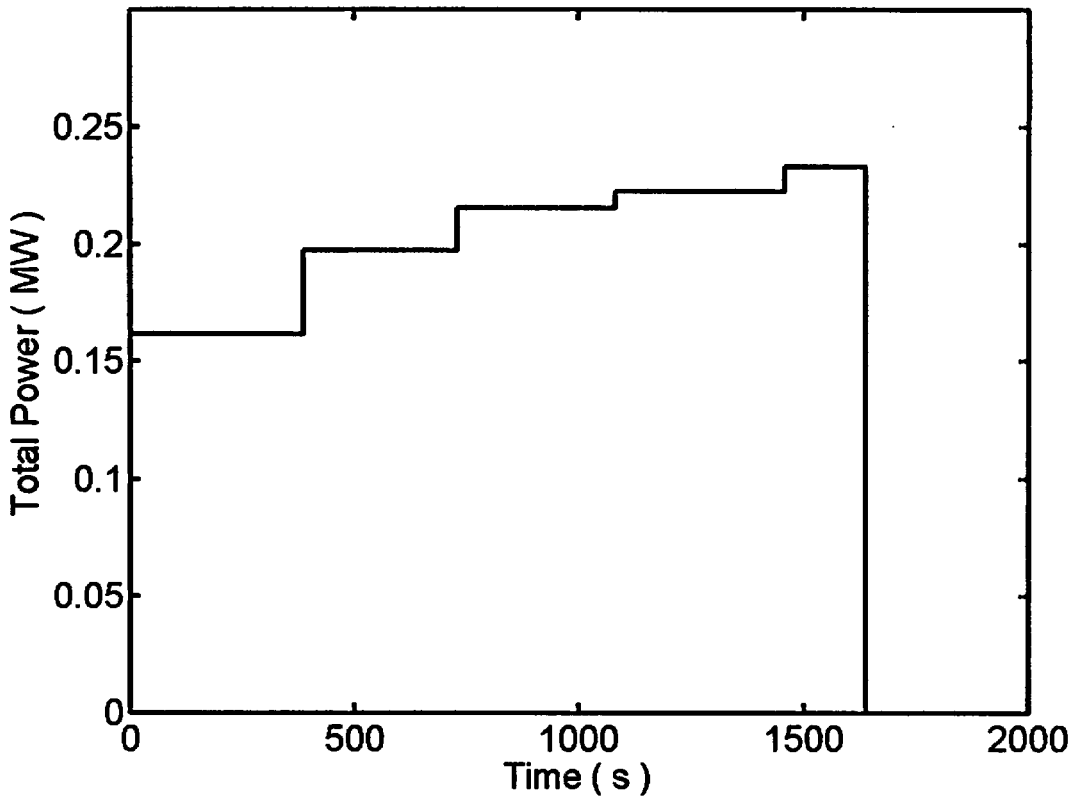

Figure A04.2. Total input power history.

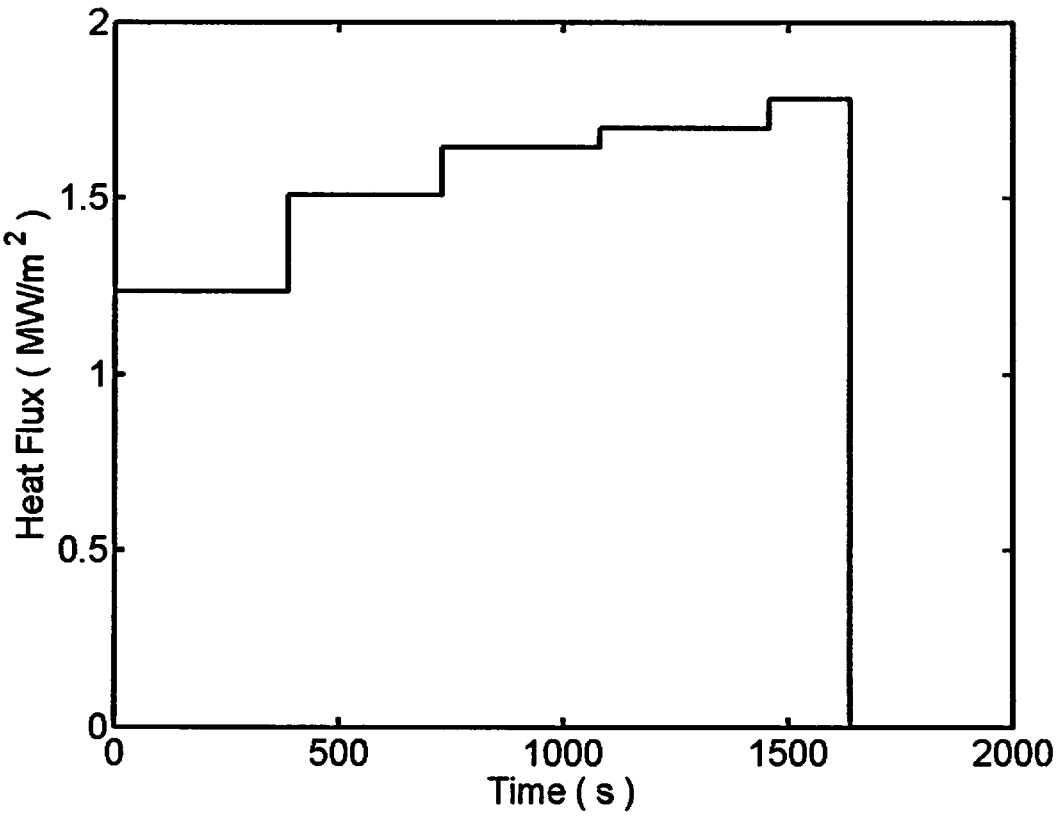

Figure A04.3. Heat flux history.

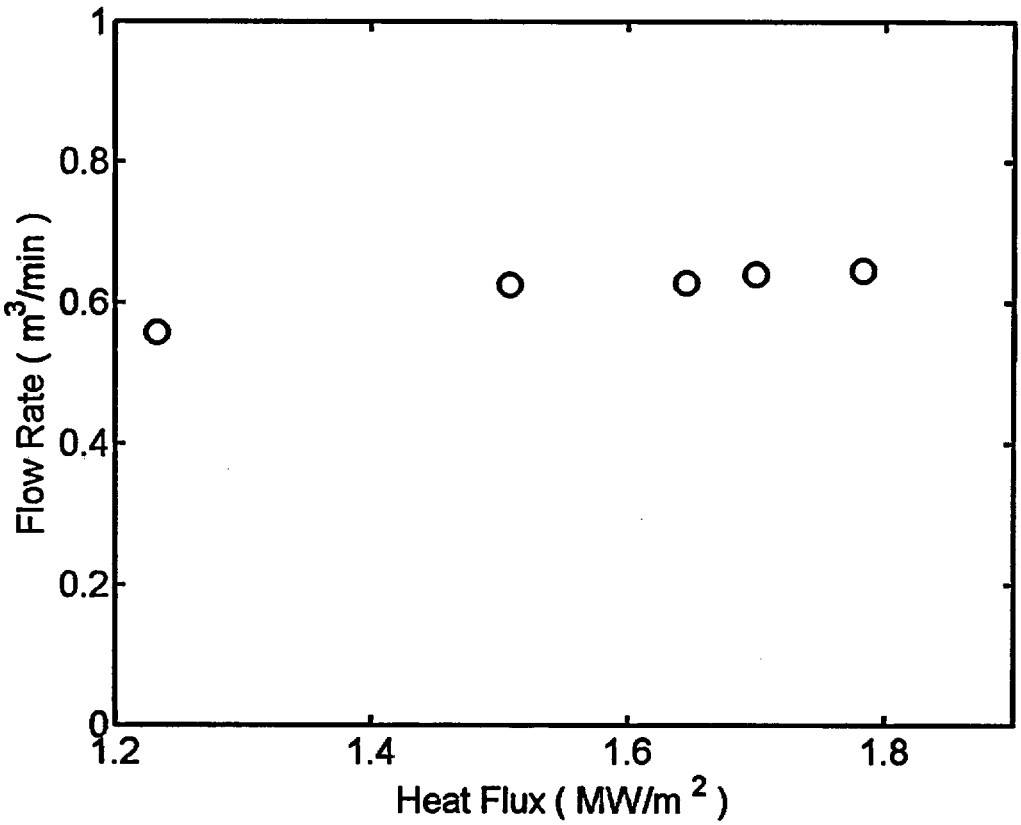

Figure A04.4. Flow rate vs. heat fluxes.

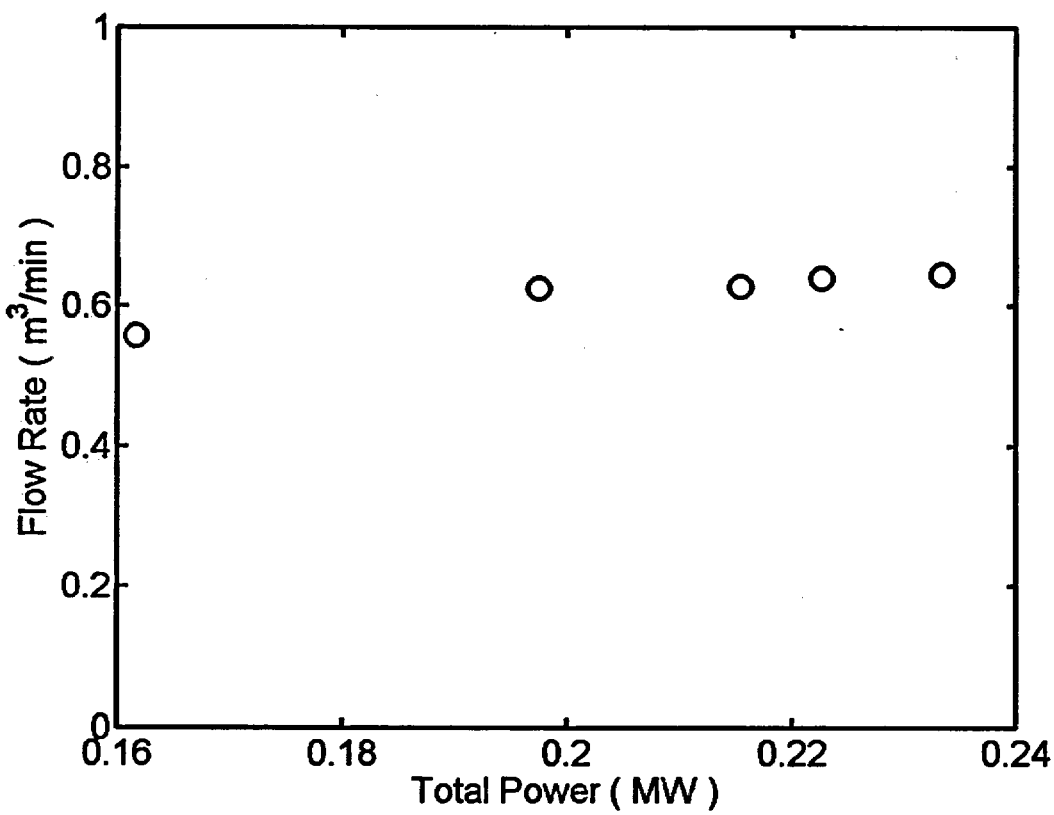

Figure A04.5. Flow rate vs. total input power.

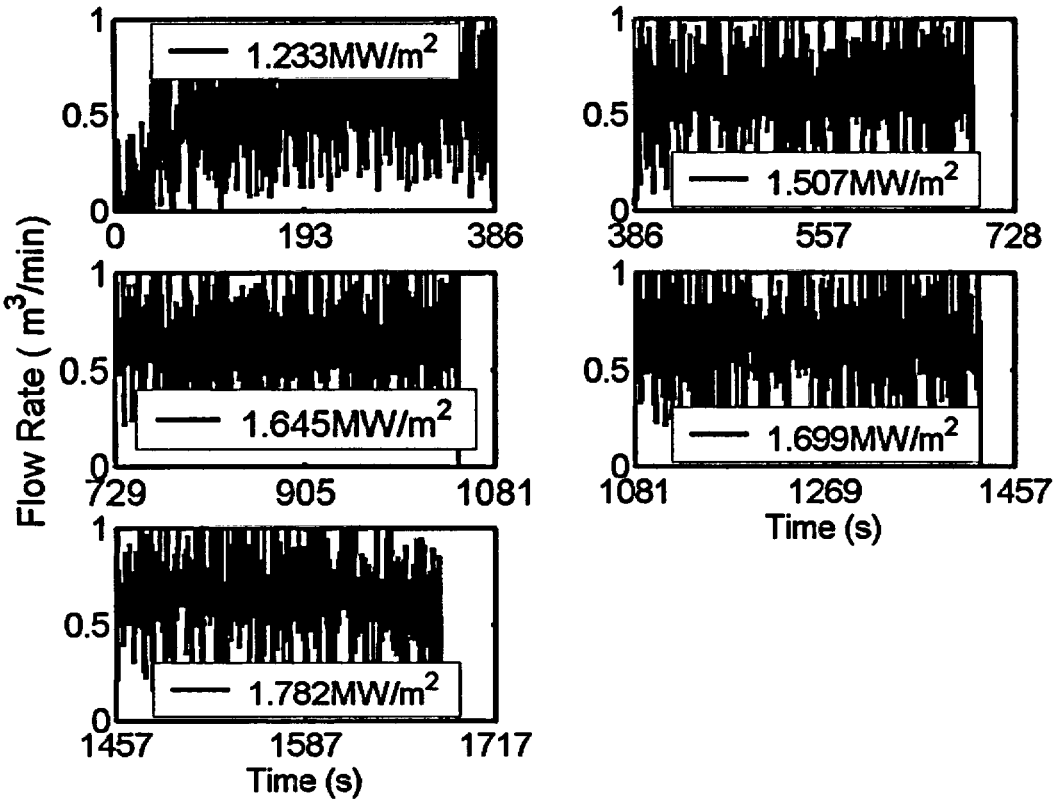

Figure A04.6. Flow rates at different heat fluxes.

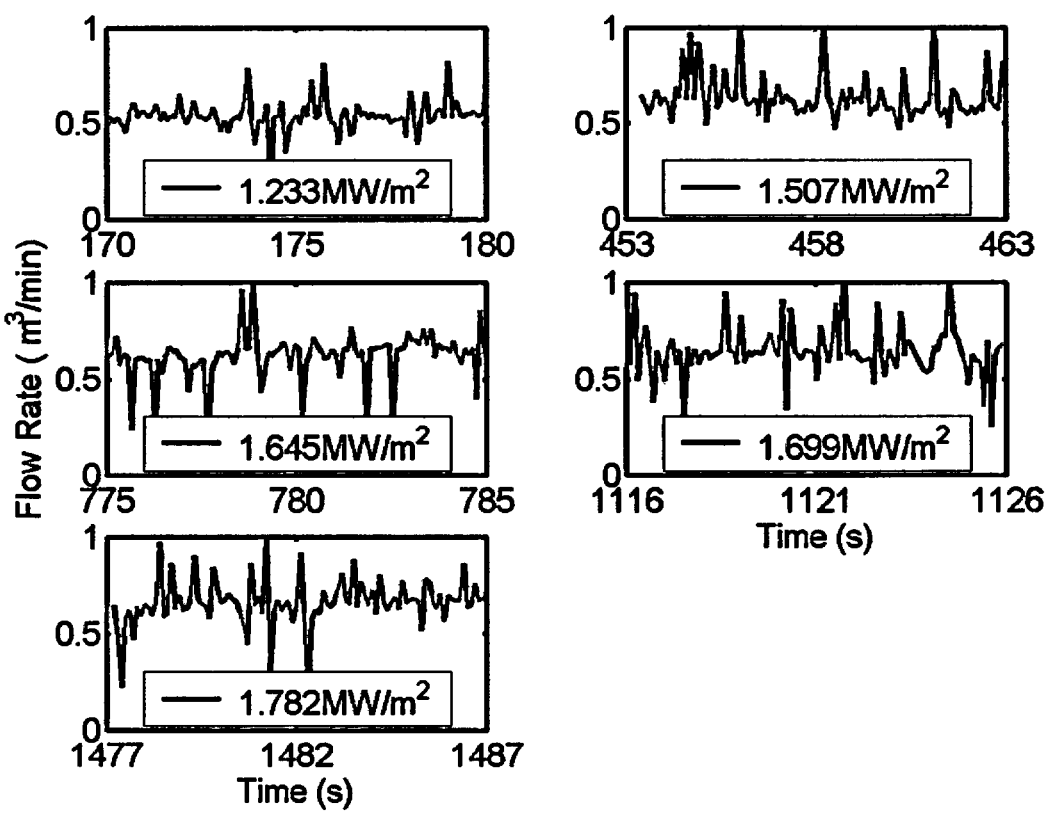

Figure A04.7. Flow rates at different heat fluxes at selected time intervals.

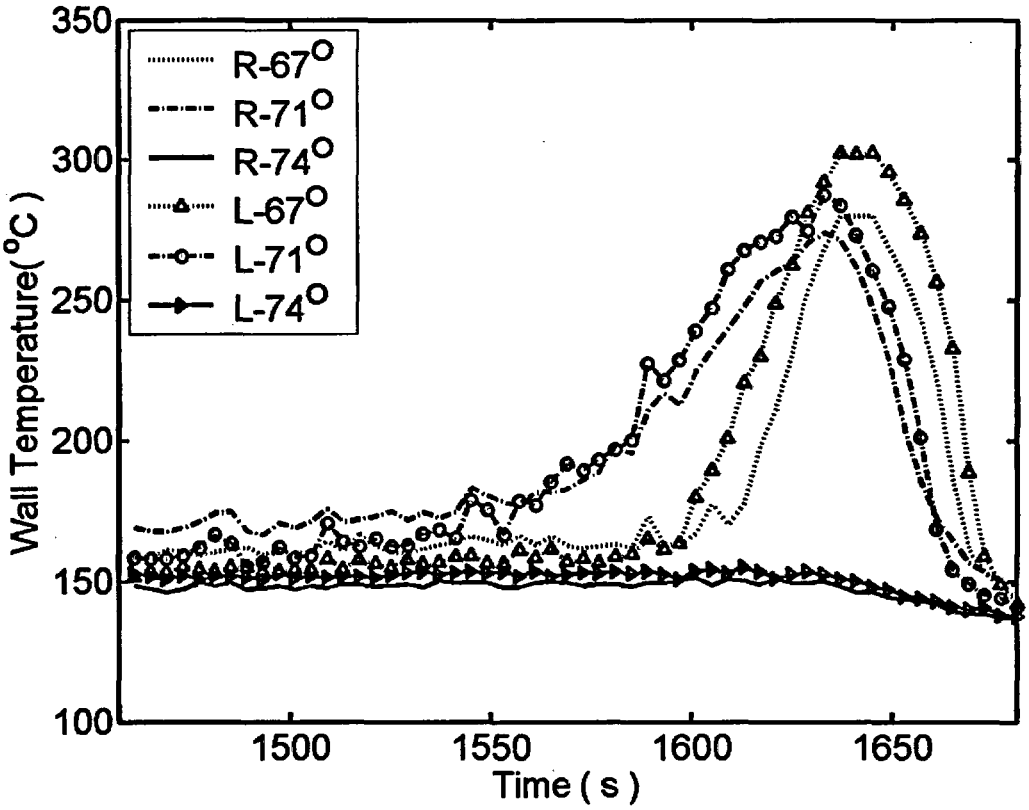

Figure A04.8. Temperature history at CHF.

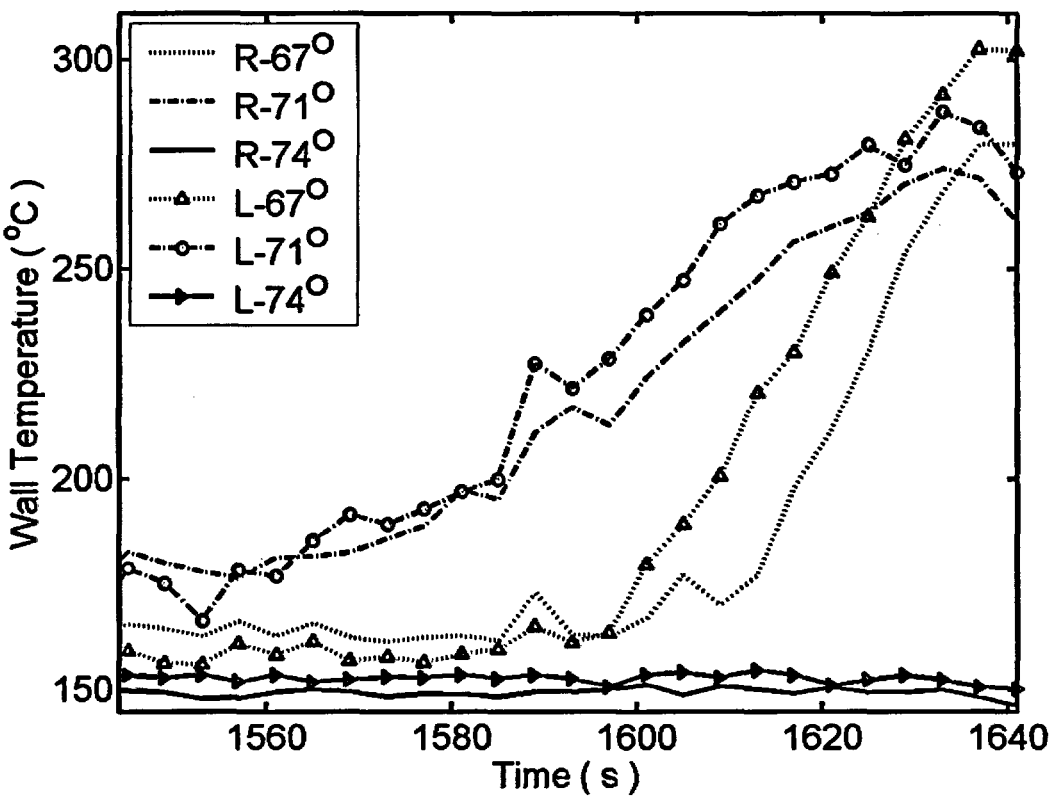

Figure A04.9. Temperature history at CHF in detail.

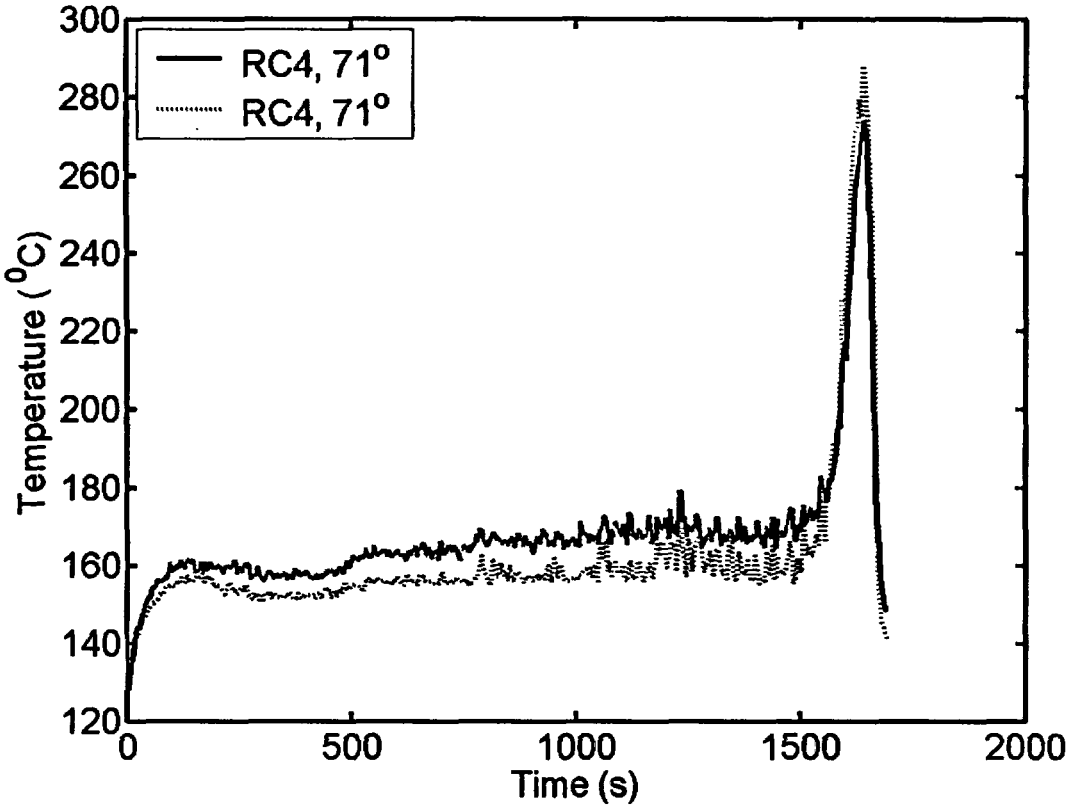

Figure A04.10. Wall temperature history measured by two thermocouples LC4 and RC4.

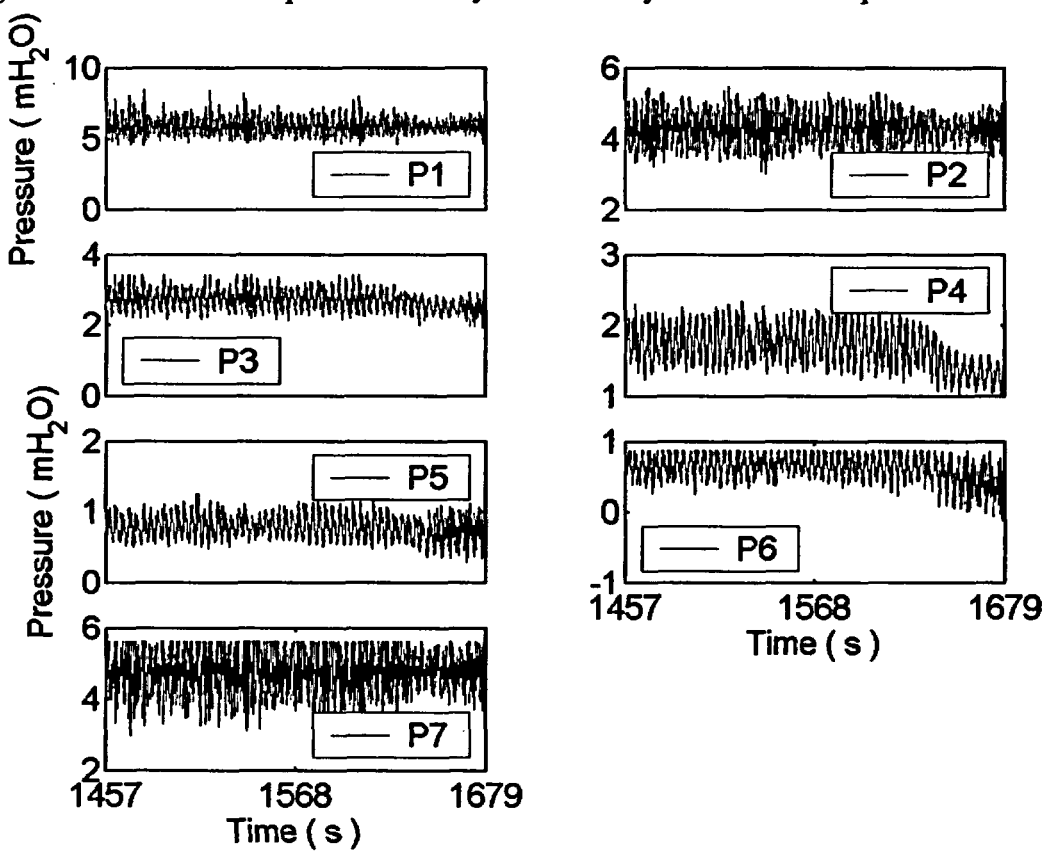

Figure A04.11. Pressure transducer data at q = 1.782 MW/m^2.

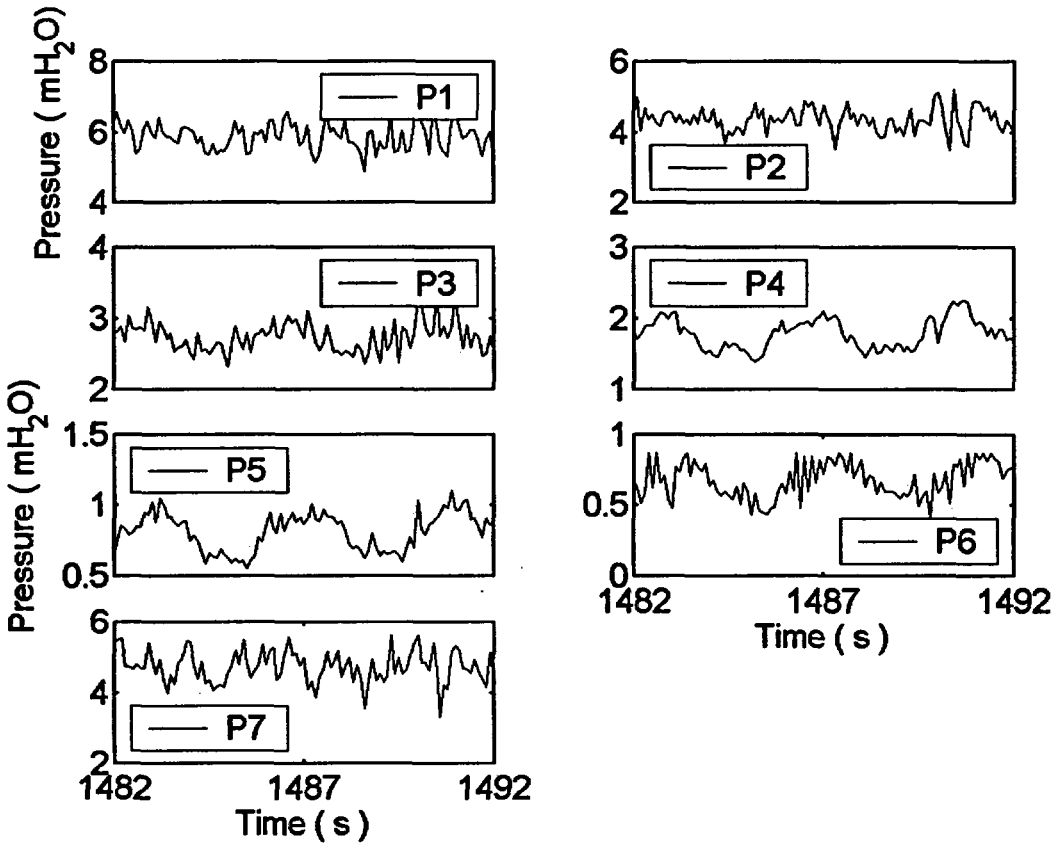

Figure A04.12. Pressure data in detail at q = 1.782 MW/m^2.

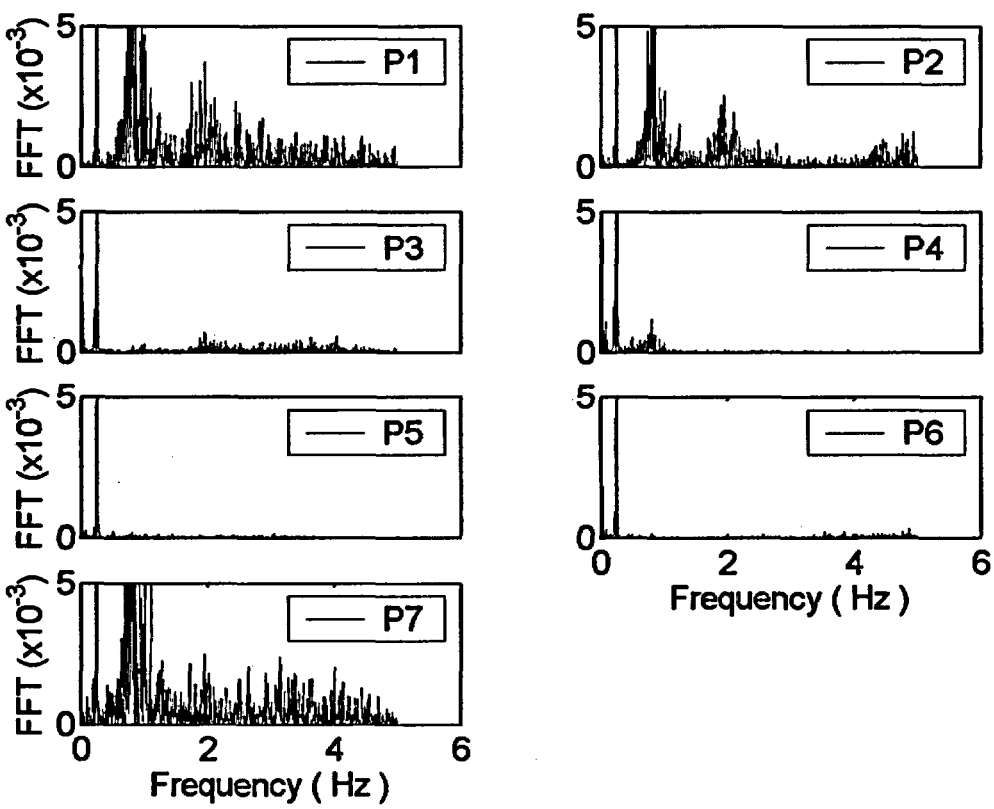

Figure A04.13. FFT of pressure time series at q = 1.782 MW/m^2.

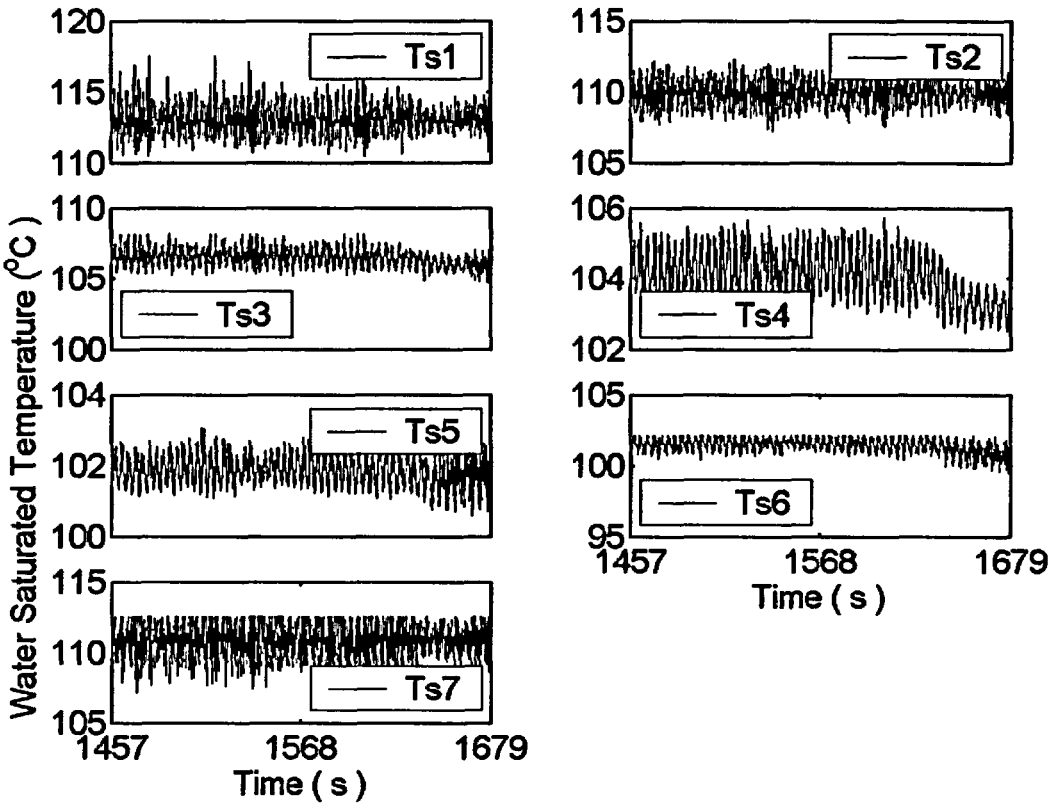

Figure A04.14. Water saturation temperature calculated from local pressure data at q = 1.782 MW/m^2.

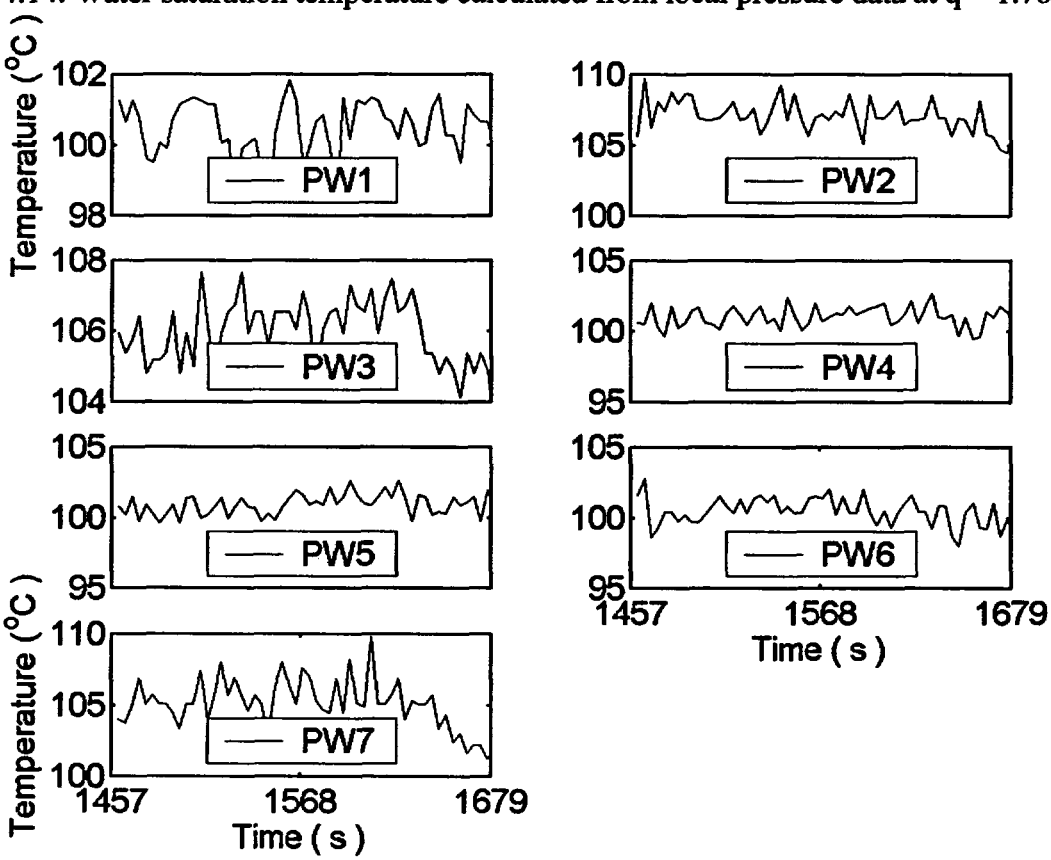

Figure A04.15. Water temperature measured at location of pressure transducer at q = 1.782 MW/m^2.

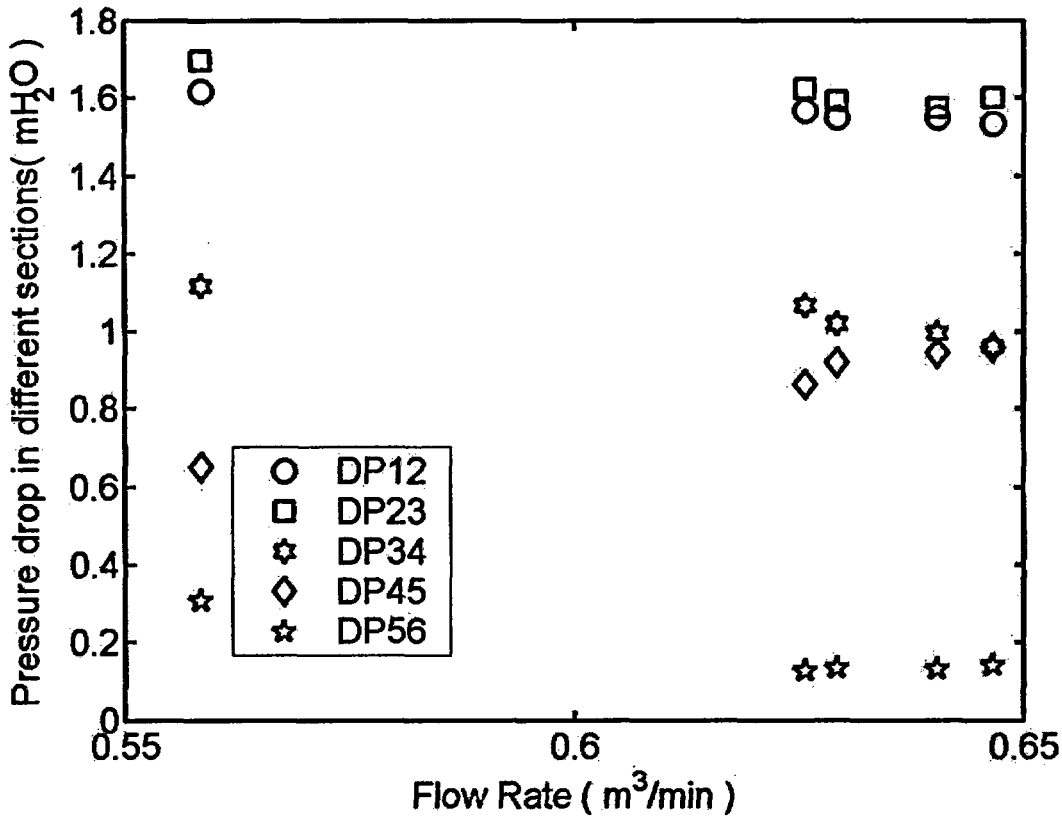

Figure A04.16. Pressure drop vs. flow rate at different heat fluxes.

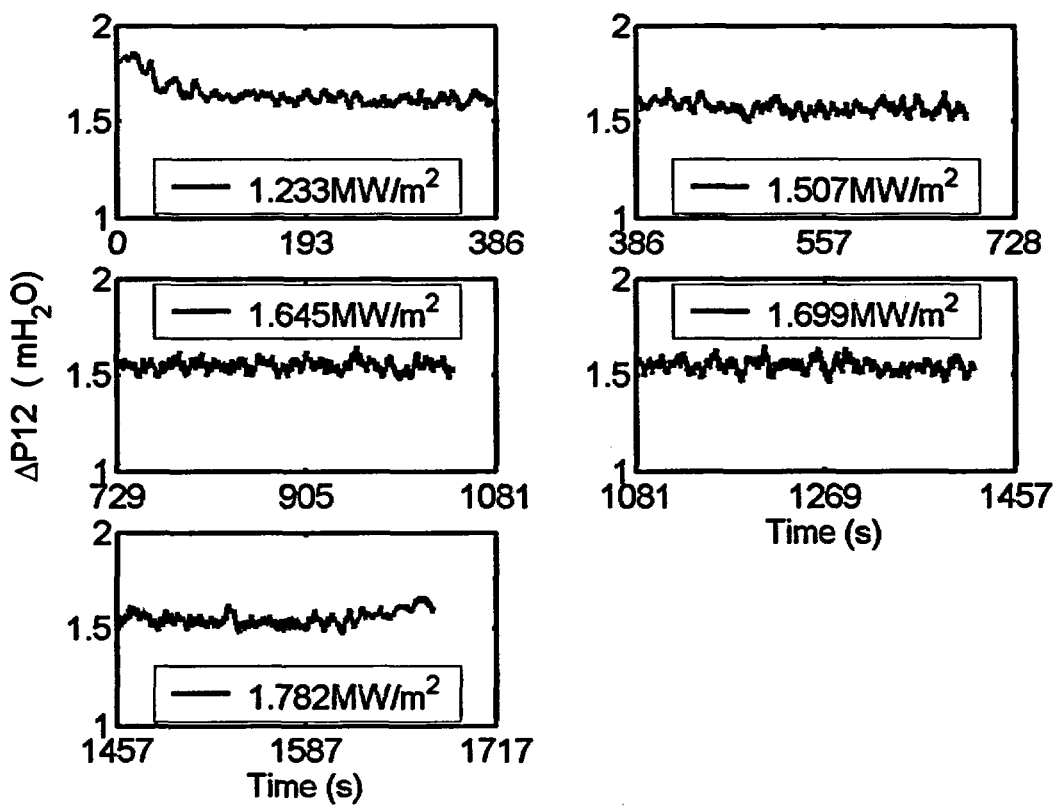

Figure A04.17. Differential Pressure ΔP12 at different heat fluxes.

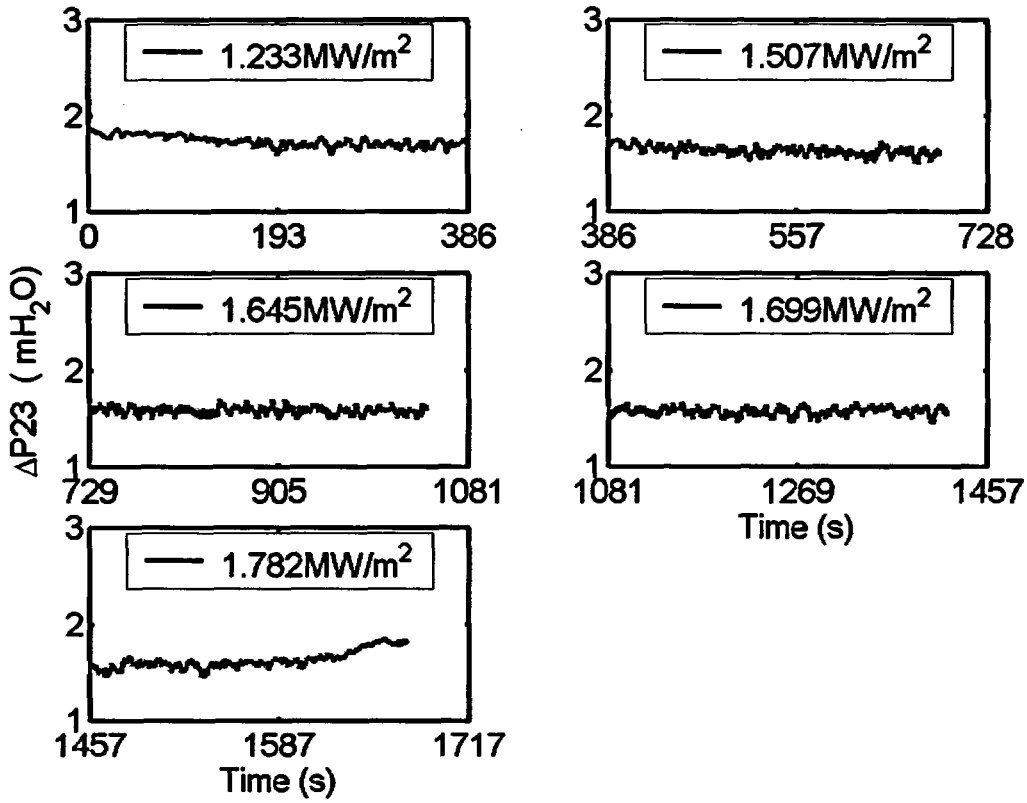

Figure A04.18. Differential Pressure ΔP23 at different heat fluxes.

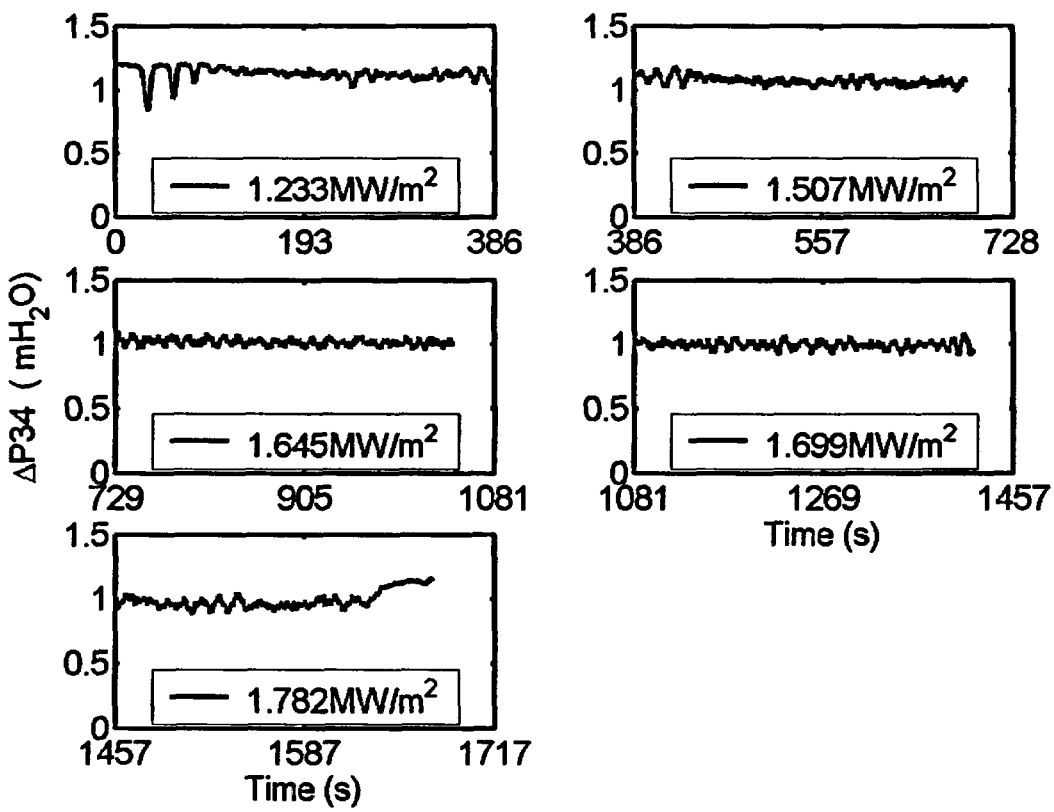

Figure A04.19. Differential Pressure ΔP34 at different heat fluxes.

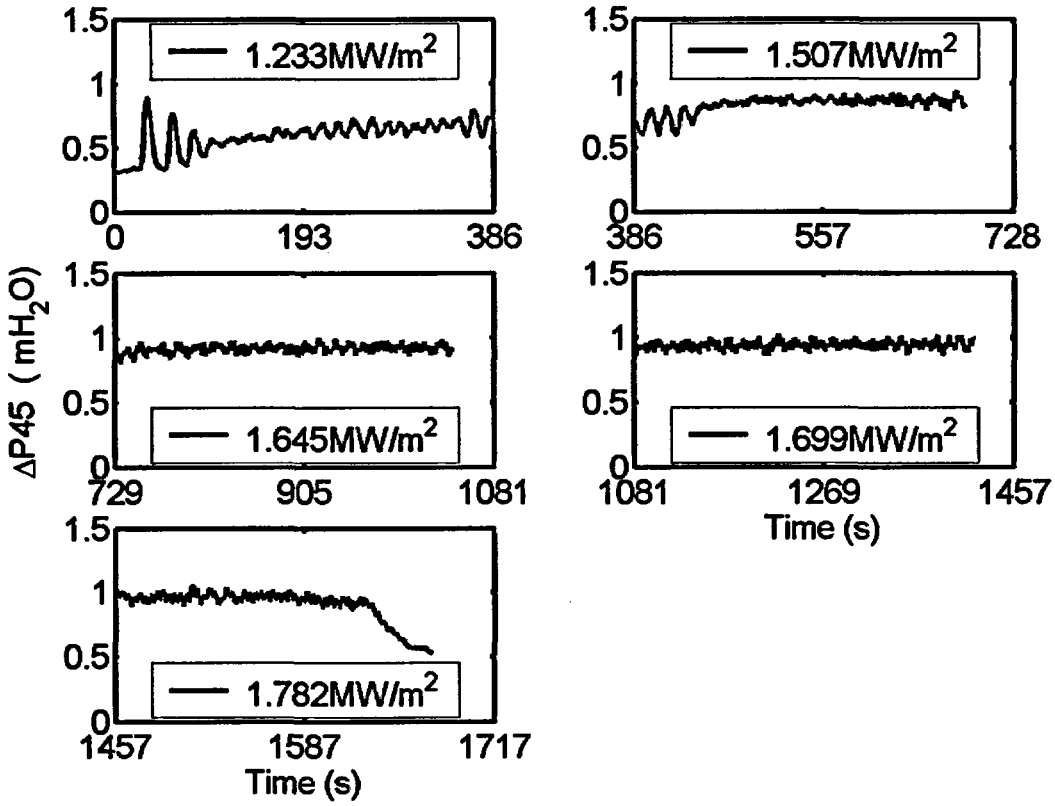

Figure A04.20. Differential Pressure ΔP45 at different heat fluxes.

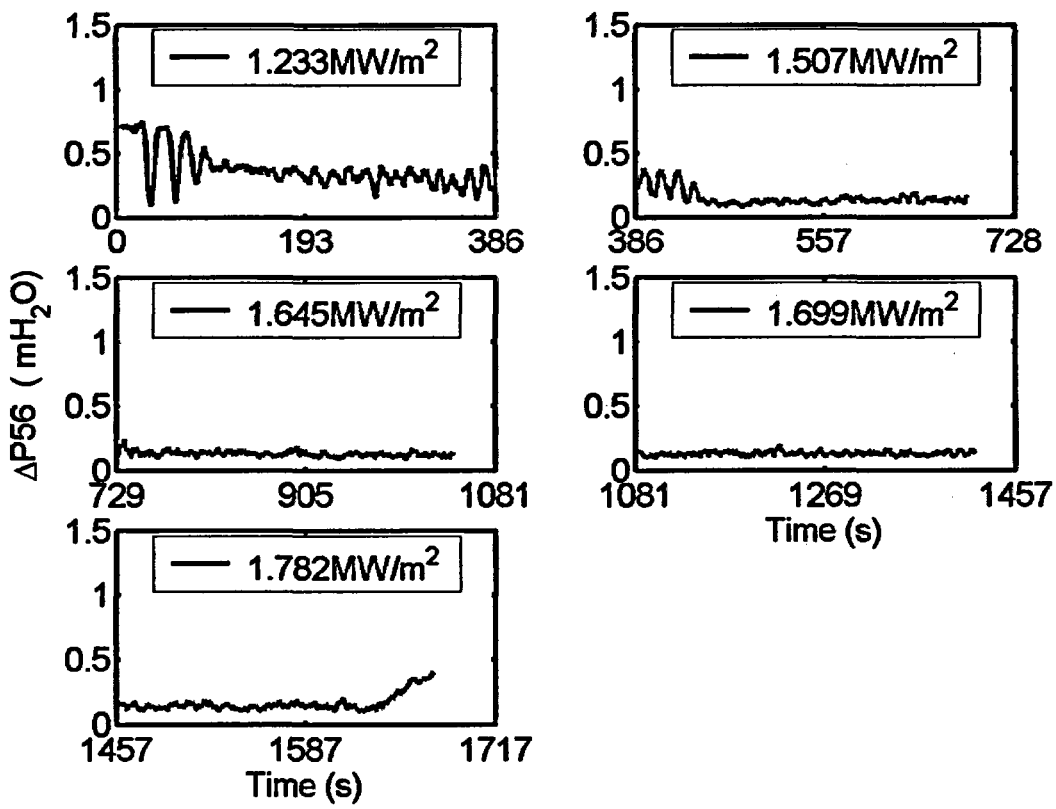

Figure A04.21. Differential Pressure ΔP56 at different heat fluxes.

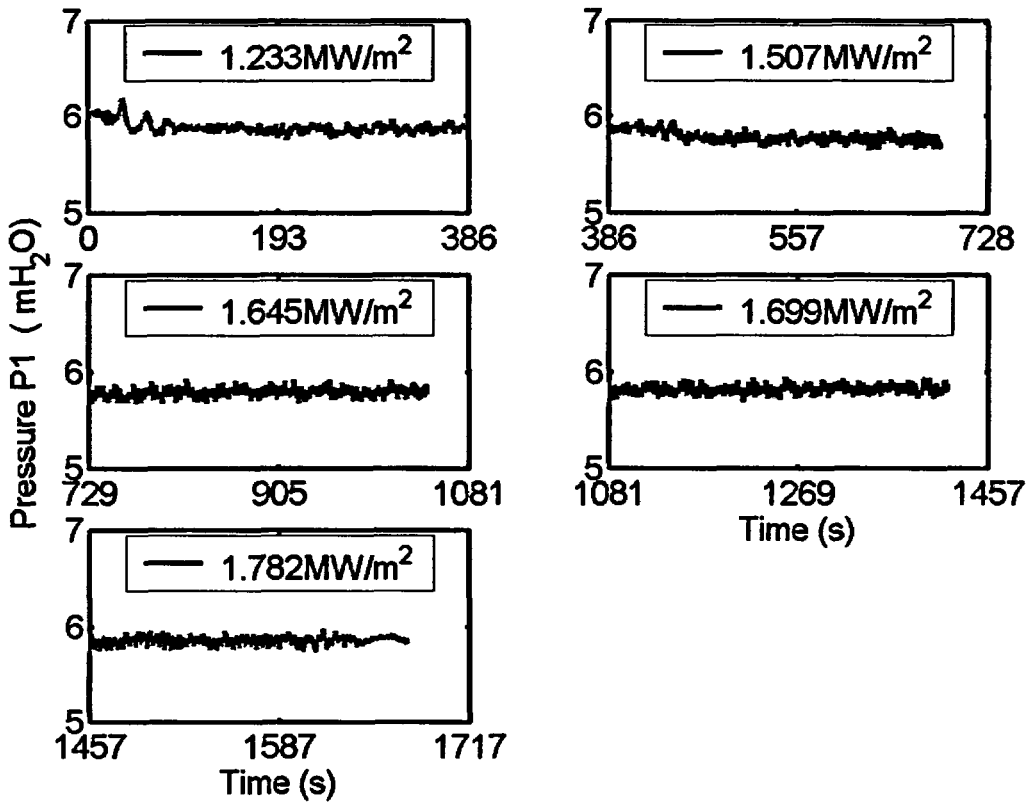

Figure A04.22. Pressure P1 at different heat fluxes.

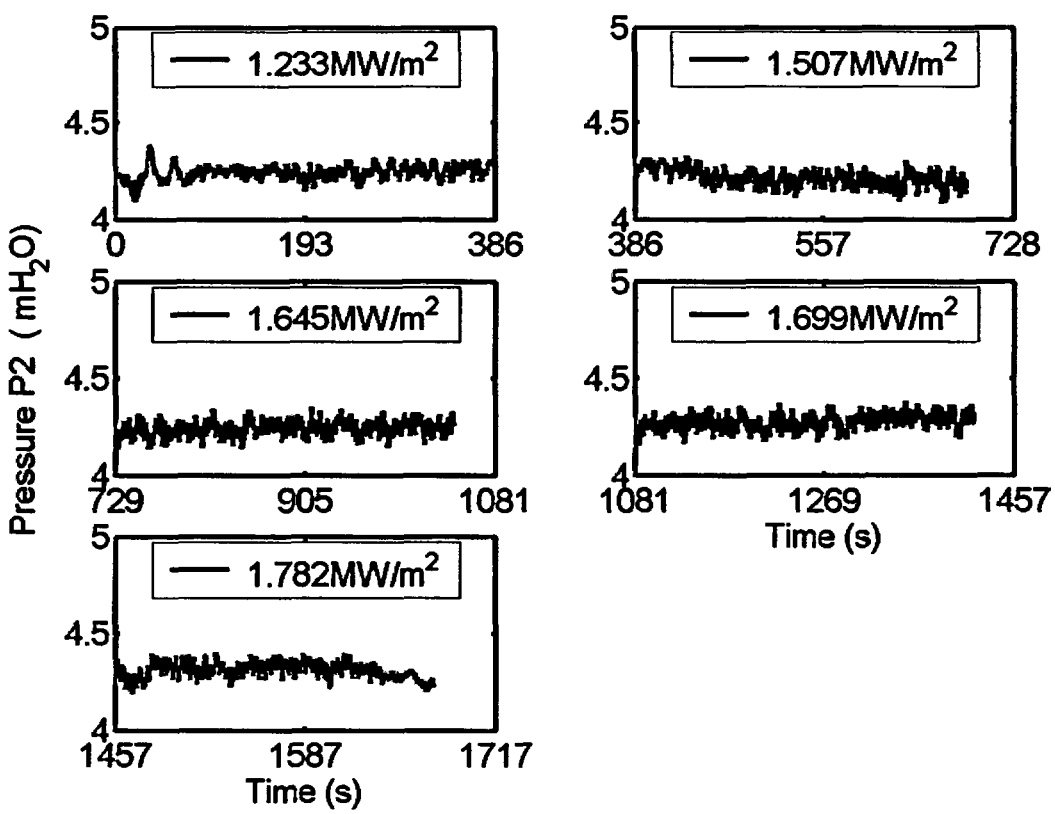

Figure A04.23. Pressure P2 at different heat fluxes.

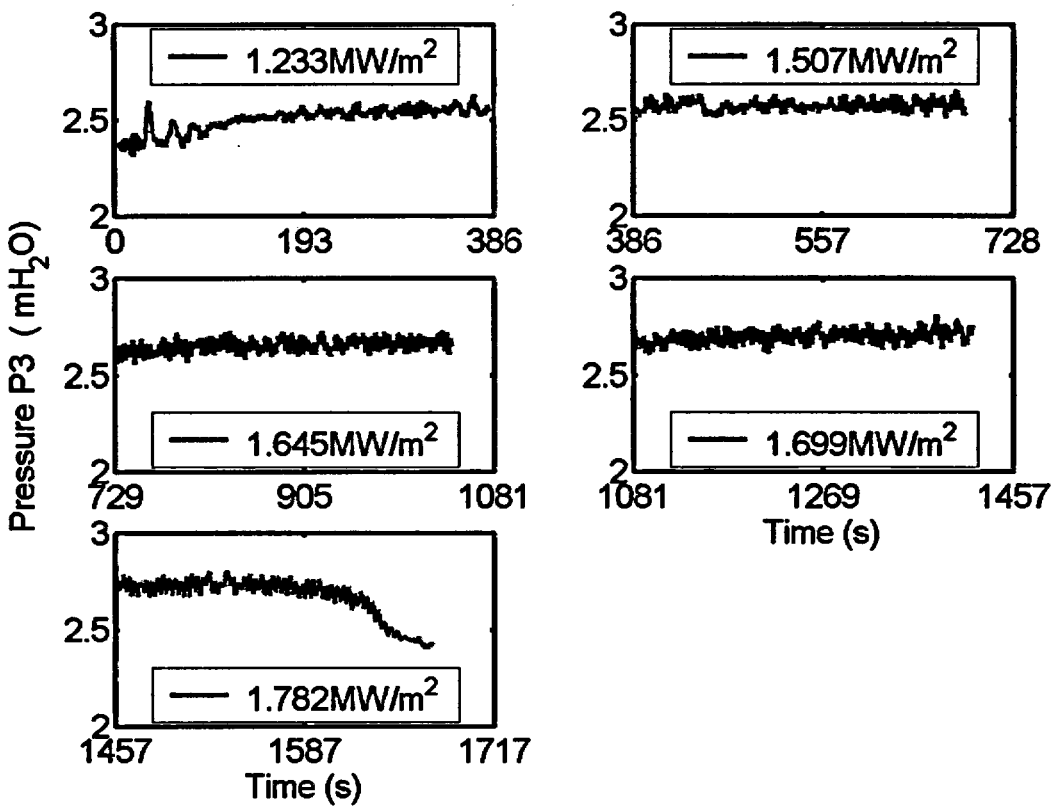

Figure A04.24. Pressure P3 at different heat fluxes.

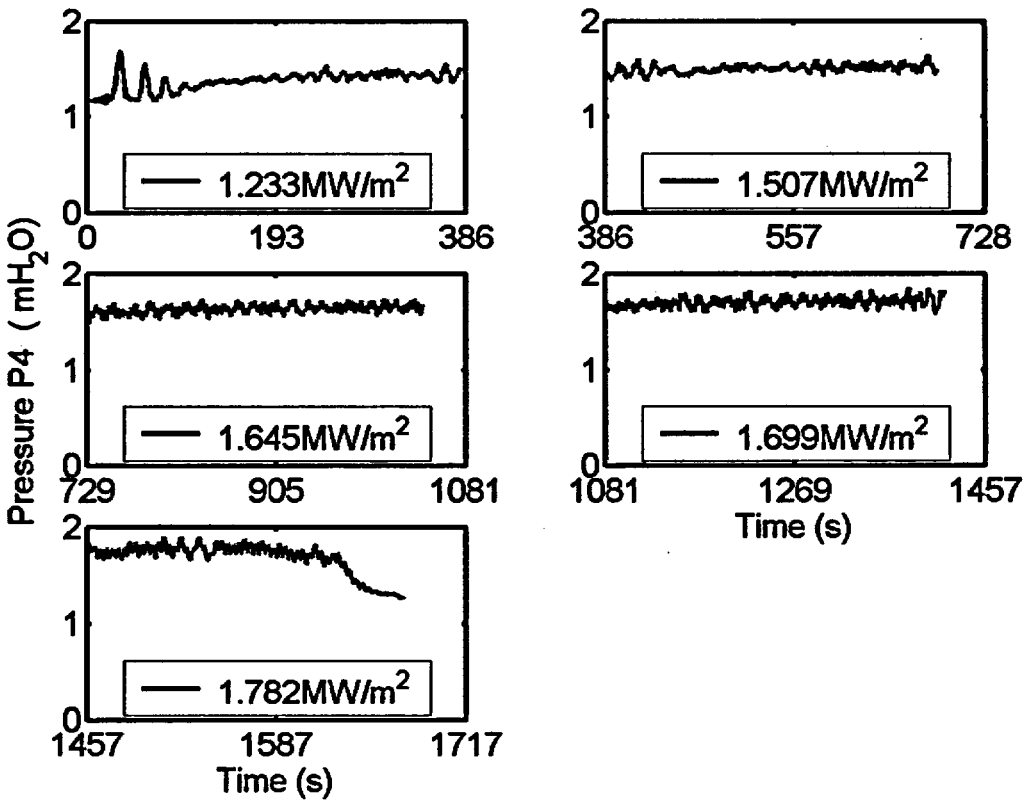

Figure A04.25. Pressure P4 at different heat fluxes.

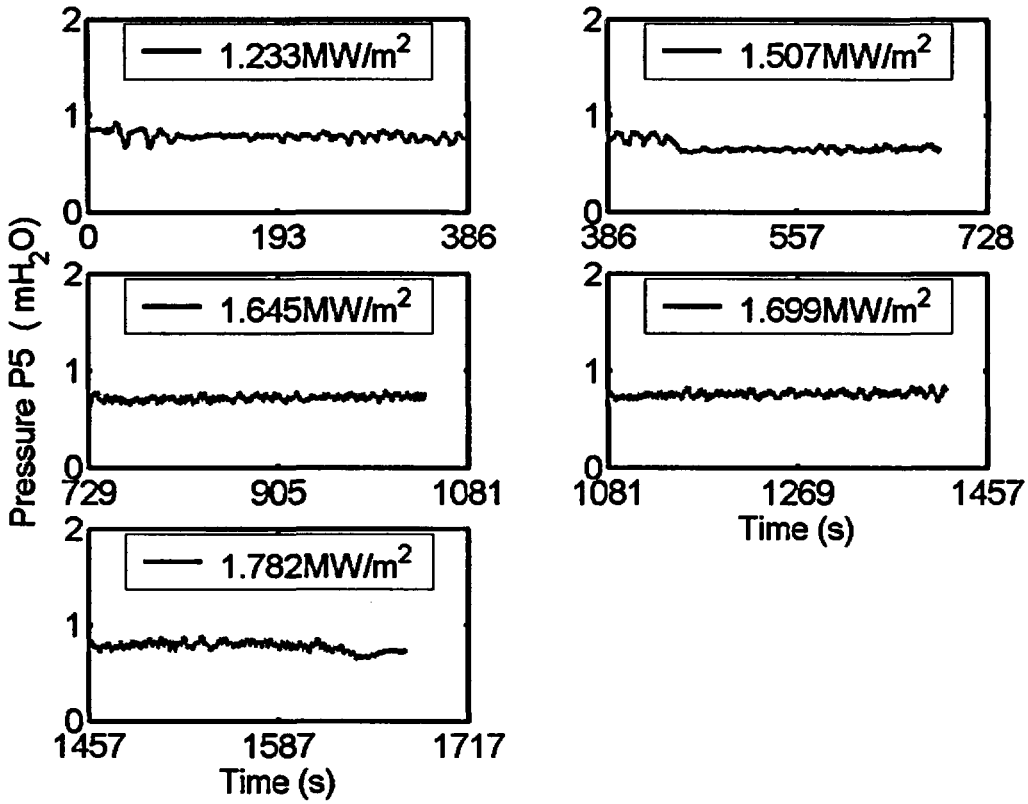

Figure A04.26. Pressure P5 at different heat fluxes.

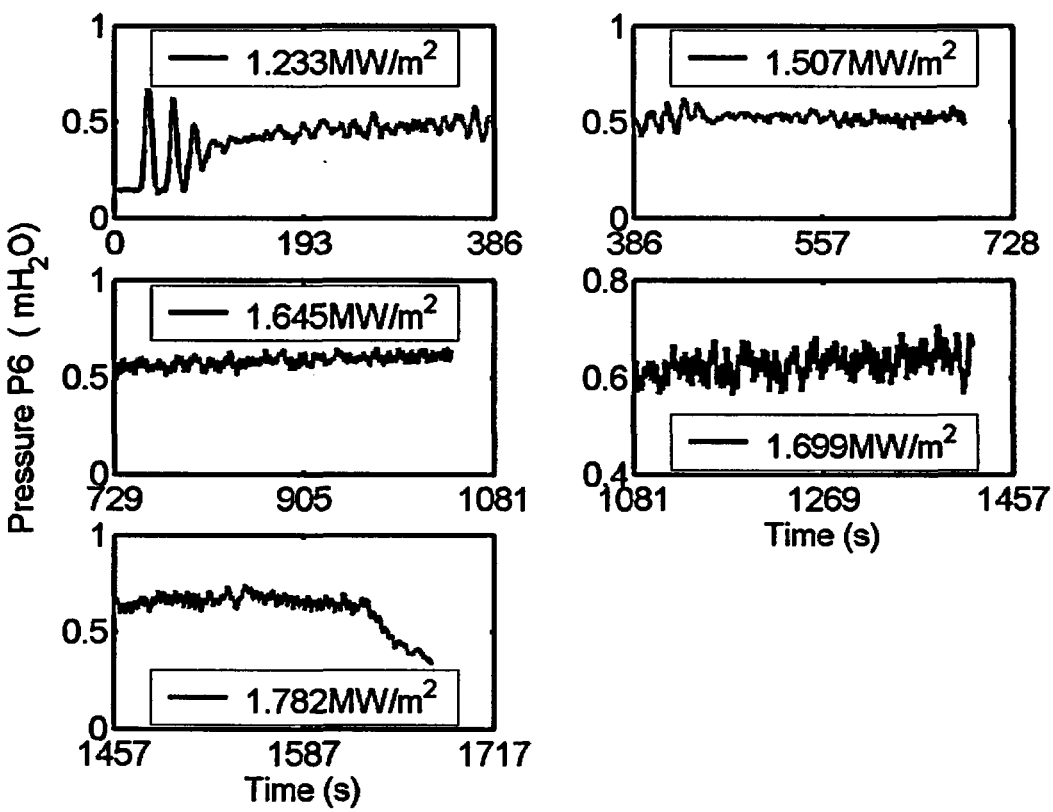

Figure A04.27. Pressure P6 at different heat fluxes.

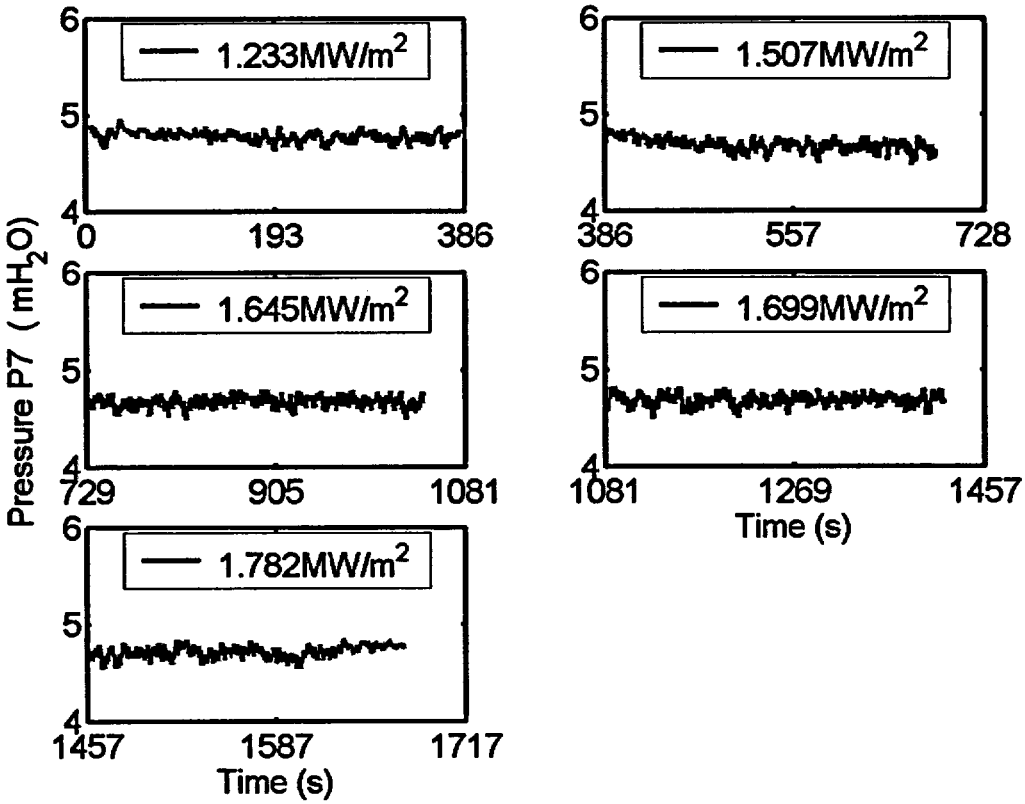

Figure A04.28. Pressure P7 at different heat fluxes.

ID #5

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T40B	1919	LC4	71	C	01/09/2003/12:30am

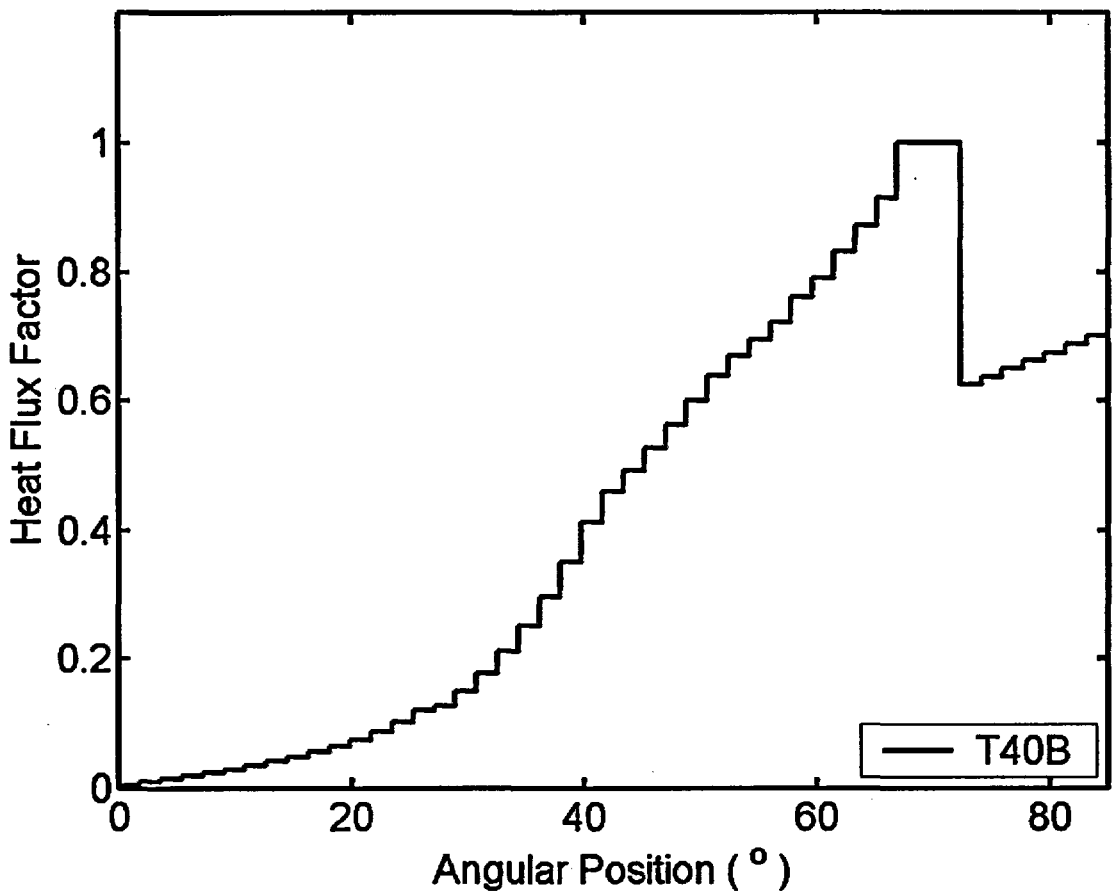

Figure A05.1. Power shape.

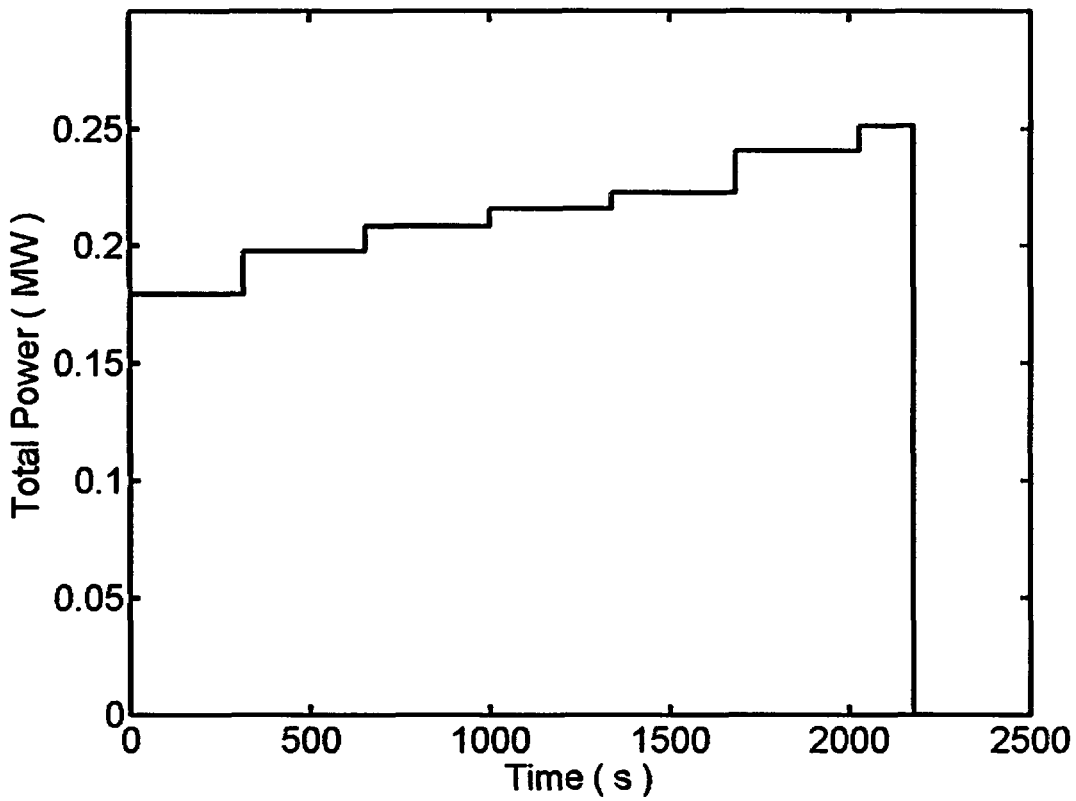

Figure A05.2. Total input power history.

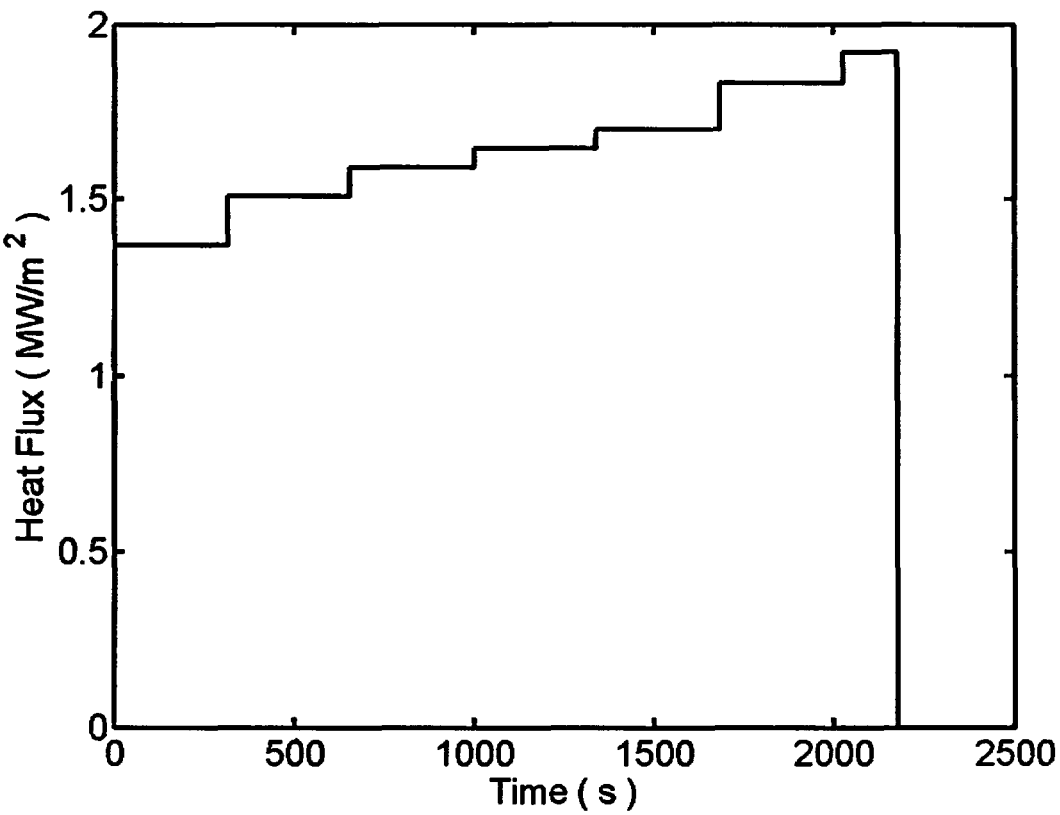

Figure A05.3. Heat flux history.

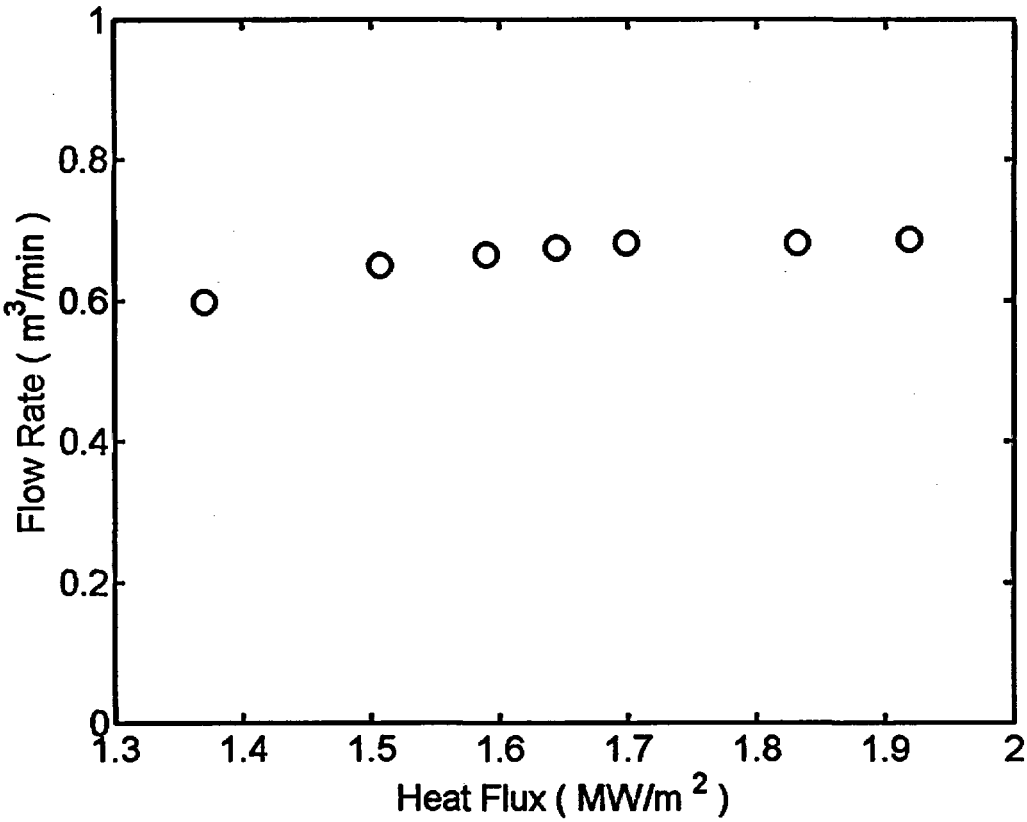

Figure A05.4. Flow rate vs. heat fluxes.

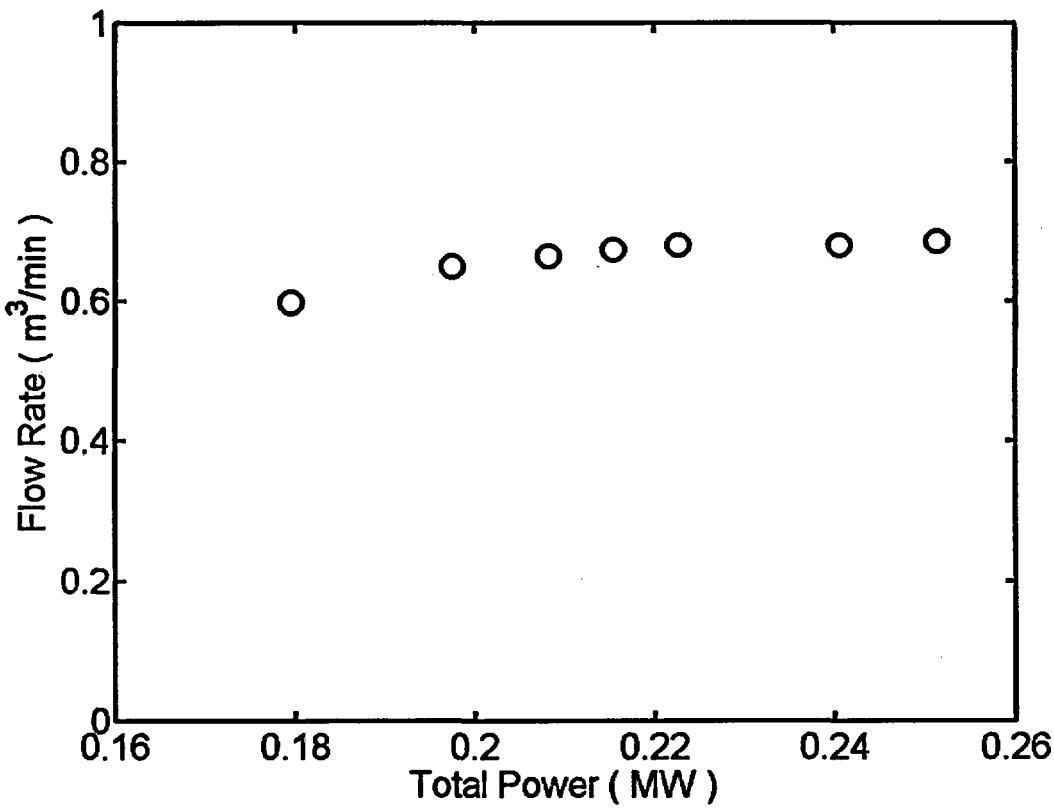

Figure A05.5. Flow rate vs. total input power.

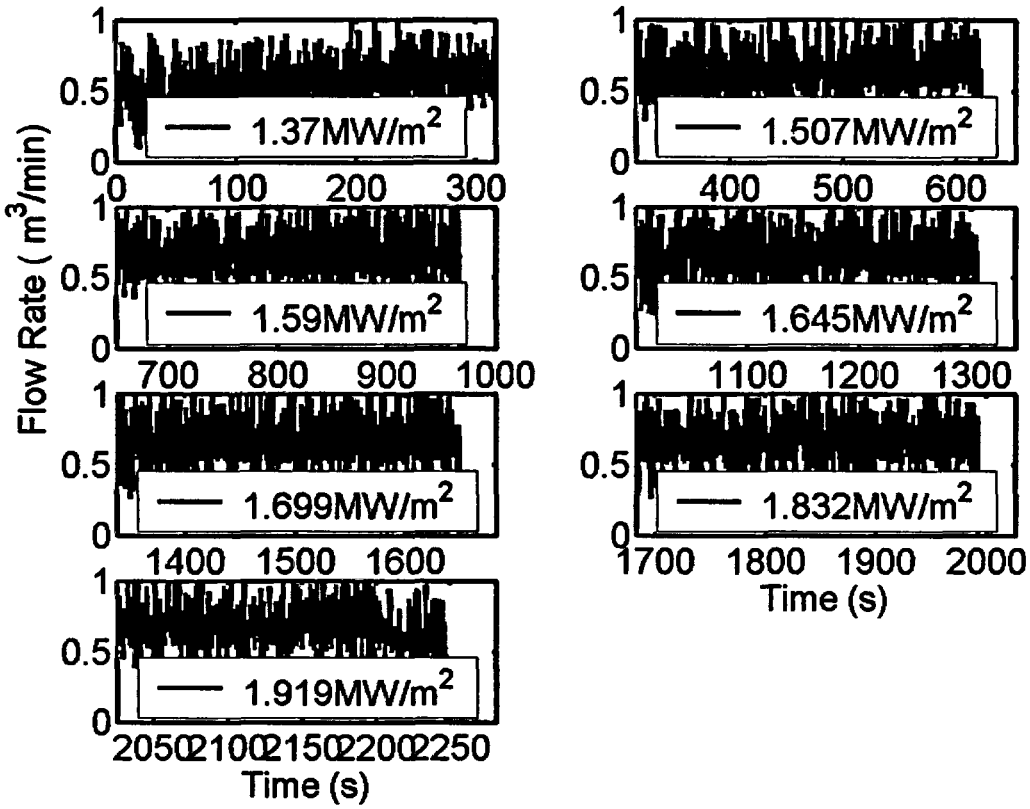

Figure A05.6. Flow rates at different heat fluxes.

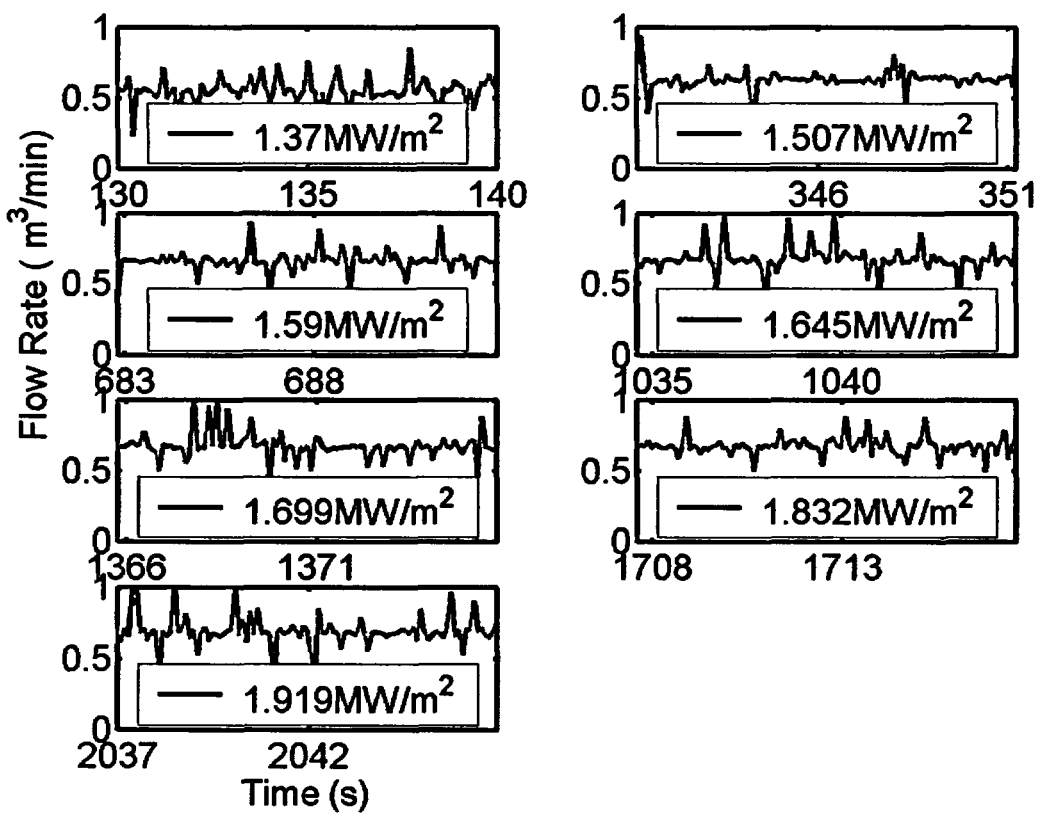

Figure A05.7. Flow rates at different heat fluxes at selected time intervals.

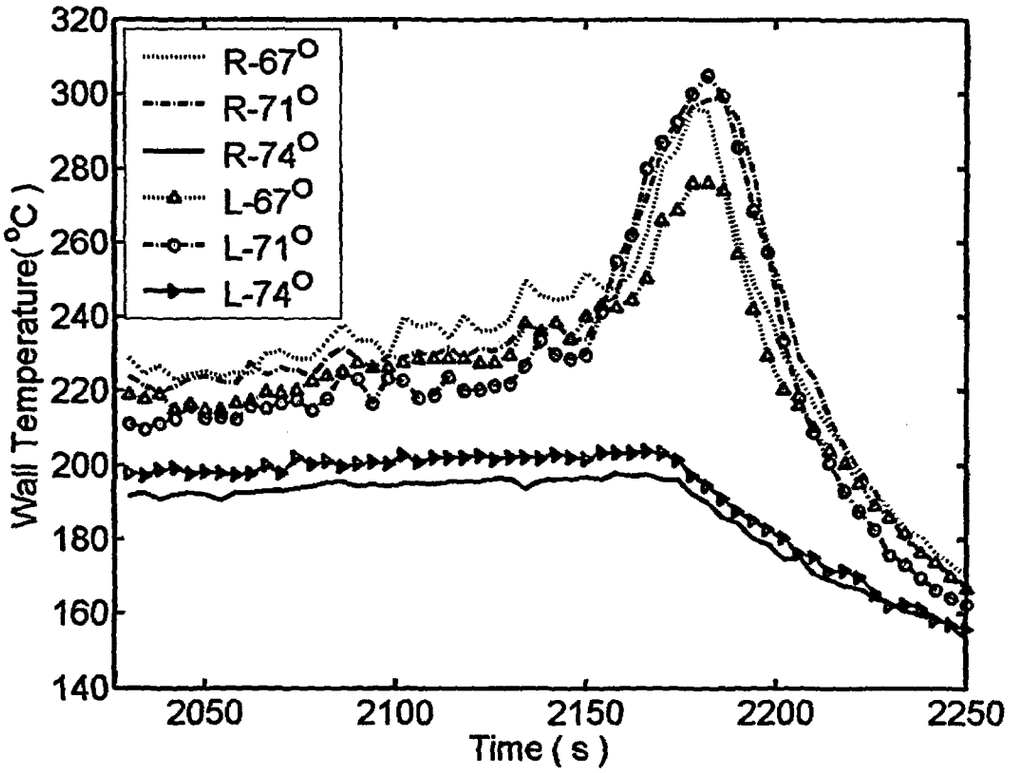

Figure A05.8. Temperature history at CHF.

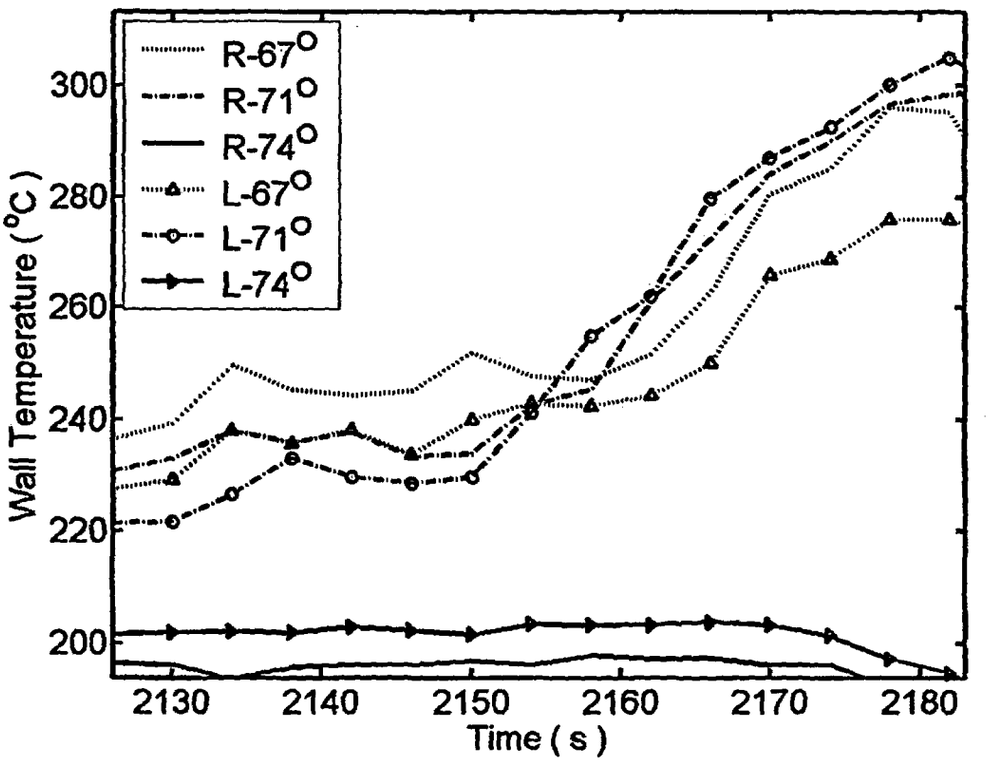

Figure A05.9. Temperature history at CHF in detail.

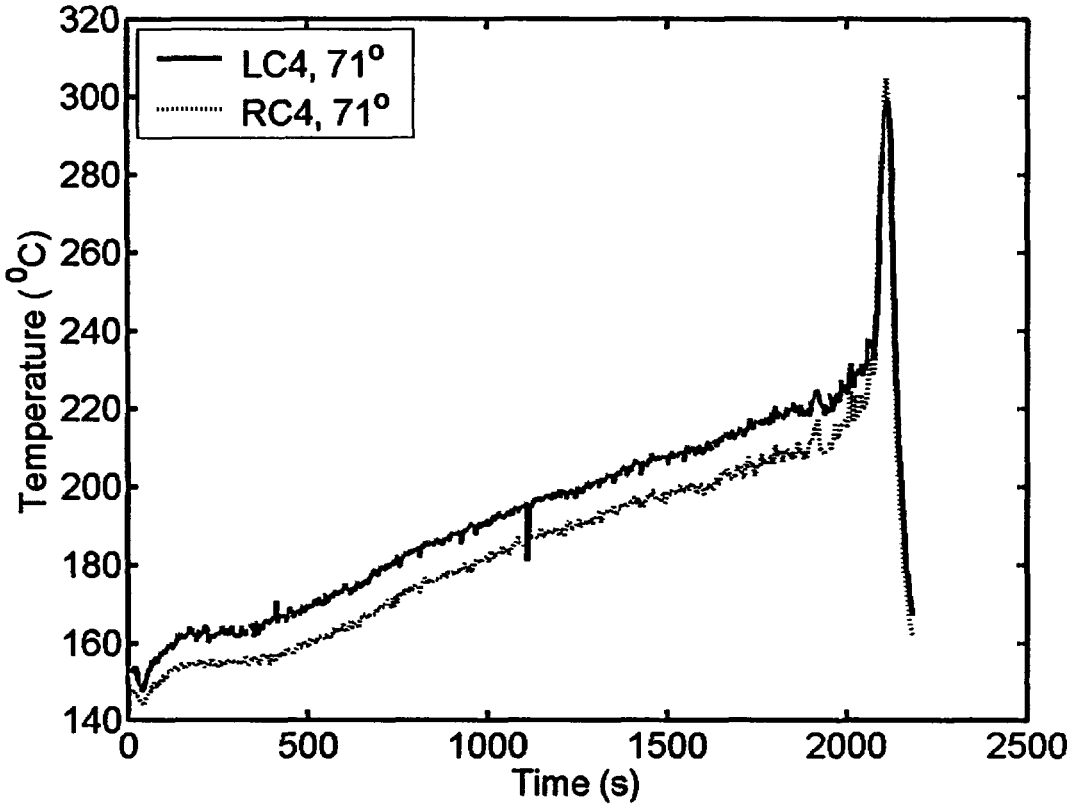

Figure A05.10. Wall temperature history measured by two thermocouples LC4 and RC4.

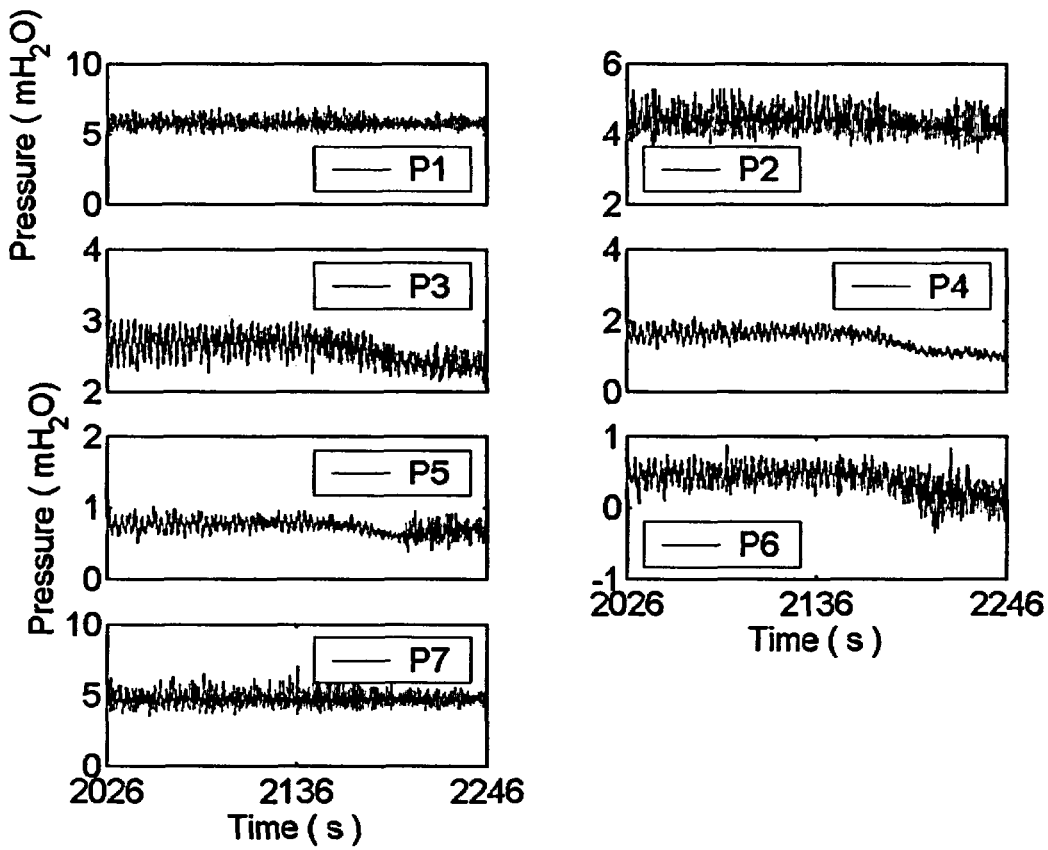

Figure A05.11. Pressure transducer data at q = 1.919 MW/m^2.

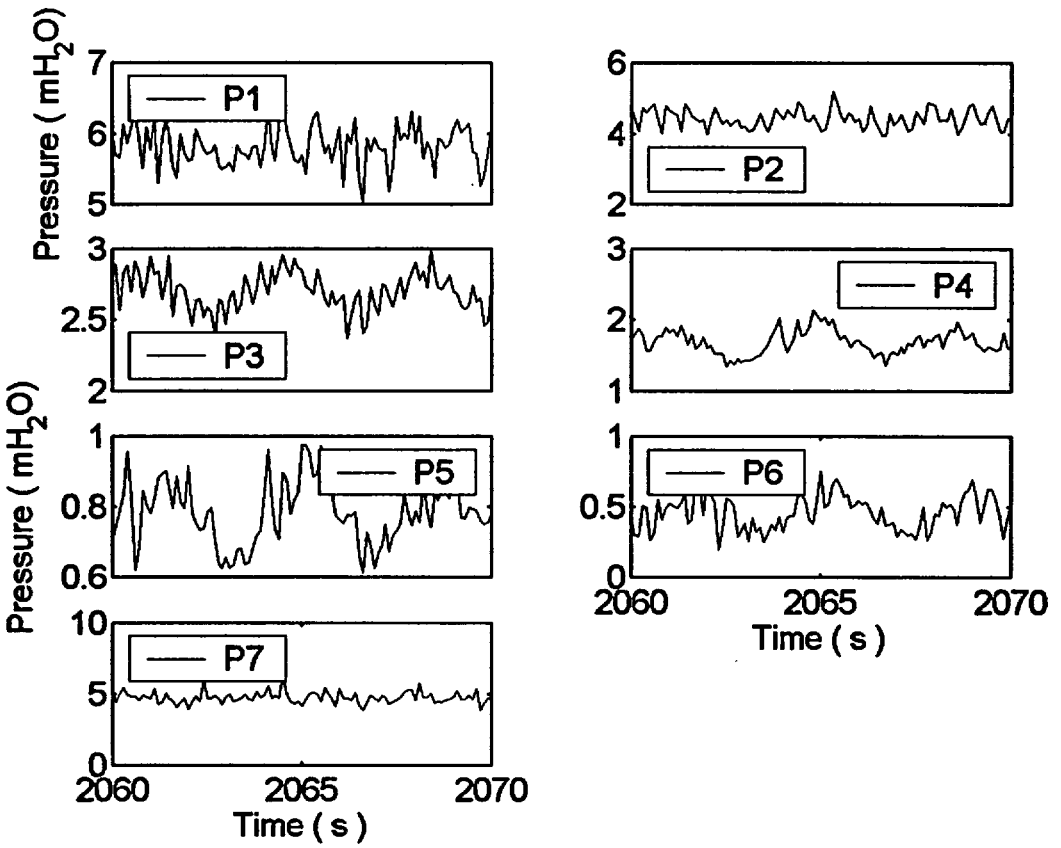

Figure A05.12. Pressure data in detail at q = 1.919 MW/m^2.

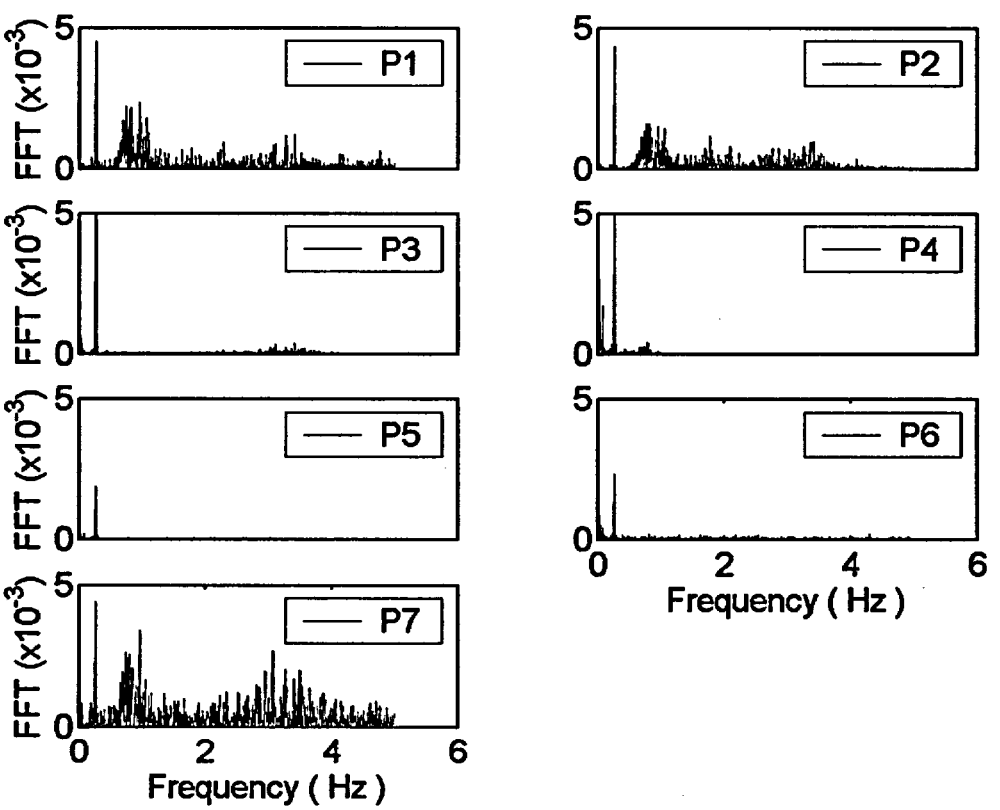

Figure A05.13. FFT of pressure time series at q = 1.919 MW/m^2.

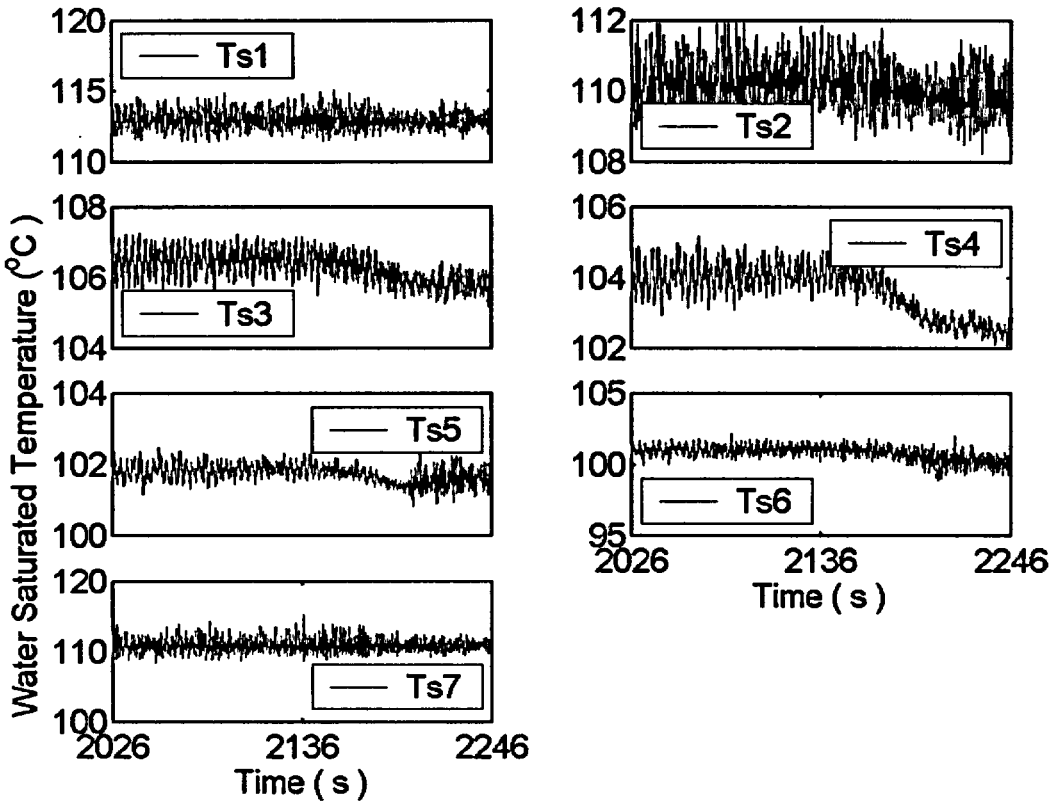

Figure A05.14. Water saturation temperature calculated from local pressure data at q = 1.919 MW/m^2.

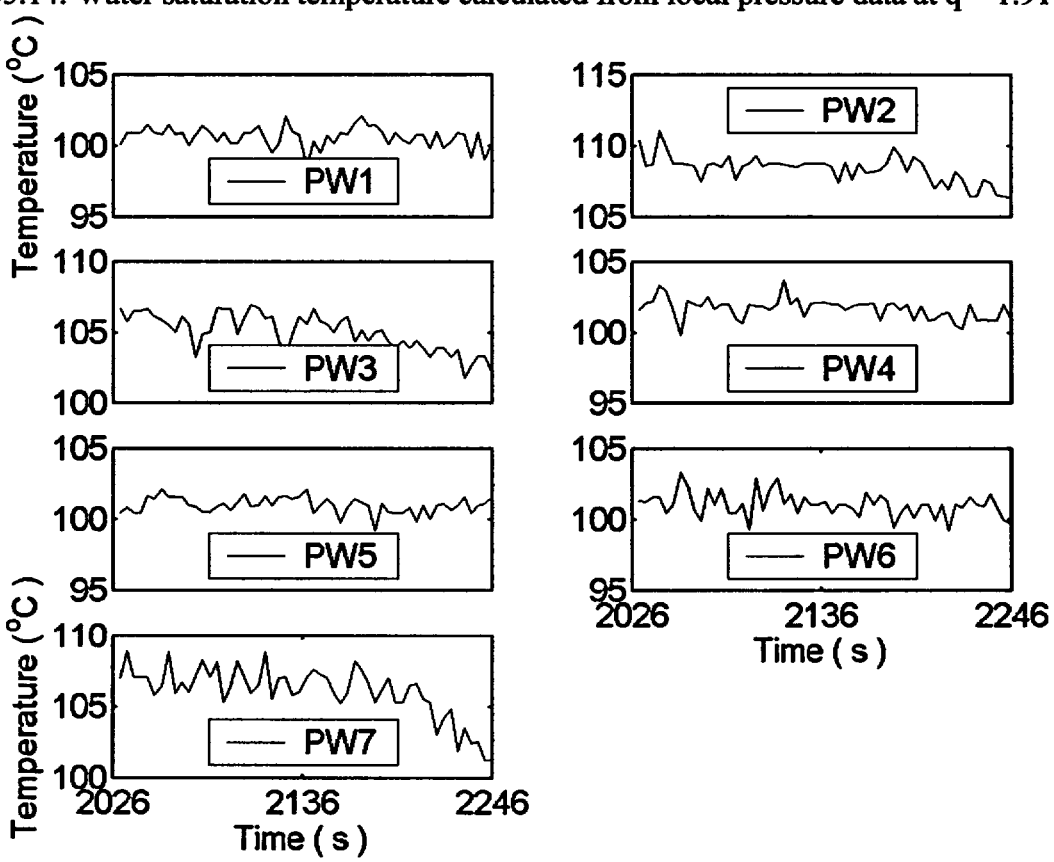

Figure A05.15. Water temperature measured at location of pressure transducer at q = 1.919 MW/m^2.

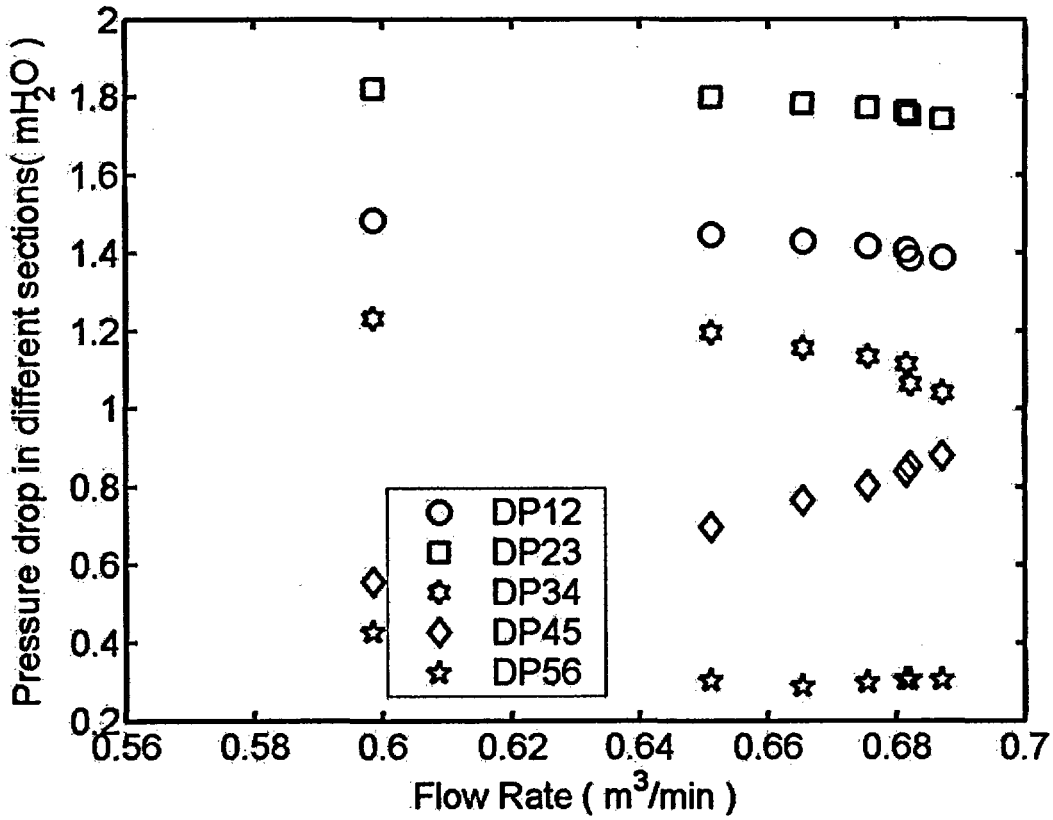

Figure A05.16. Pressure drop vs. flow rate at different heat fluxes.

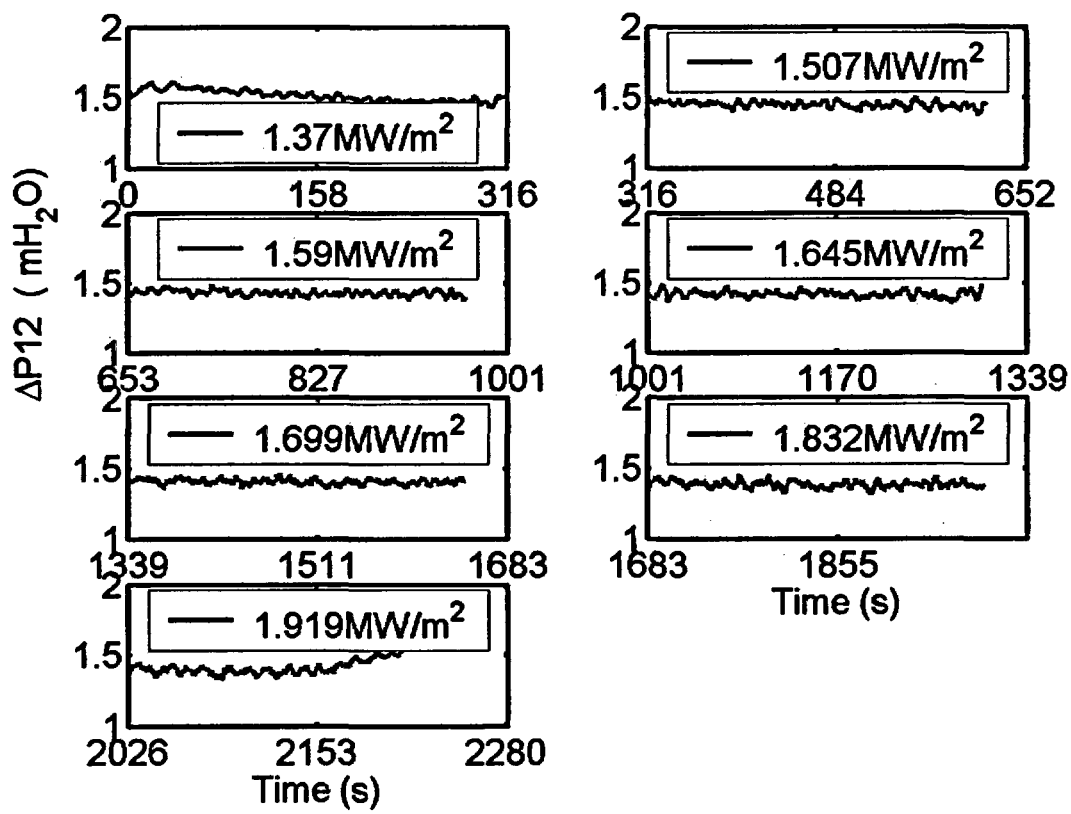

Figure A05.17. Differential Pressure ΔP12 at different heat fluxes.

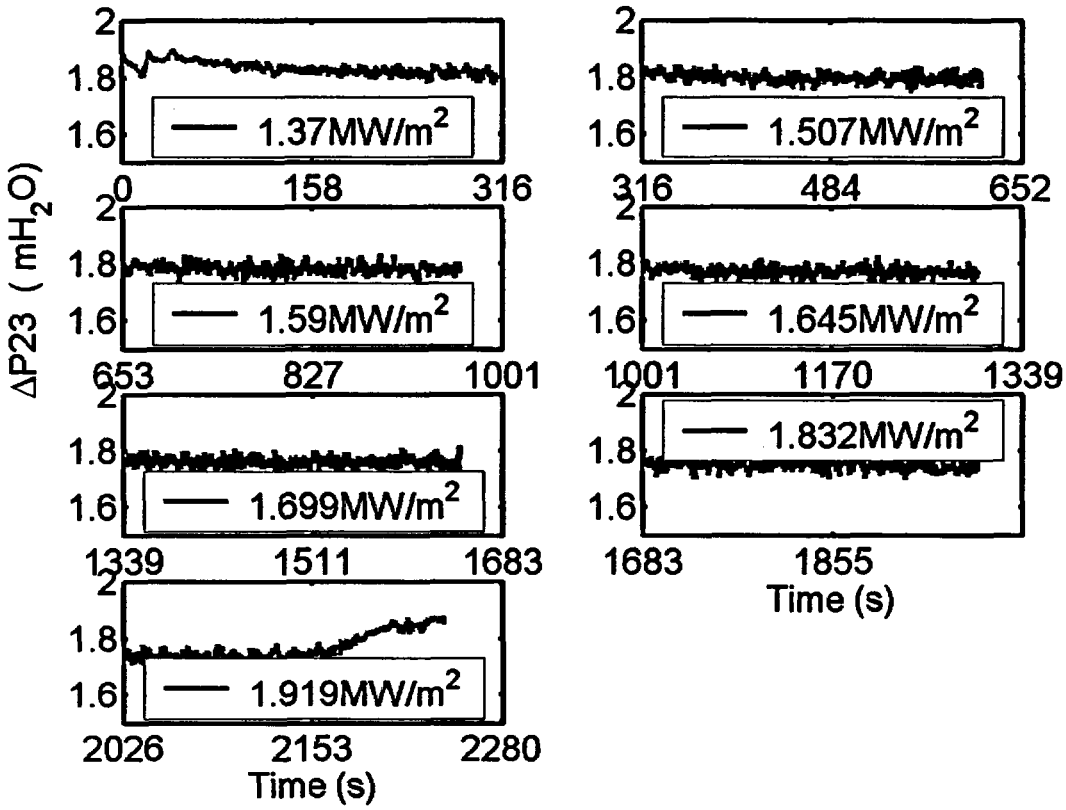

Figure A05.18. Differential Pressure ΔP23 at different heat fluxes.

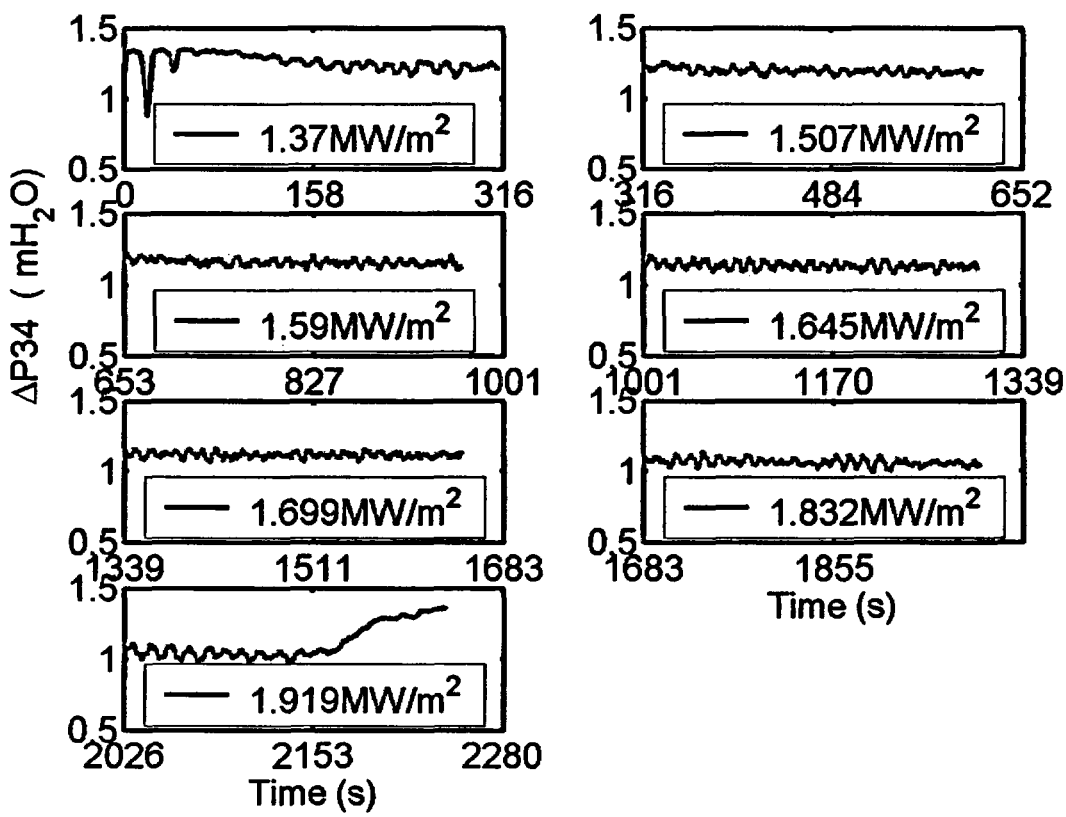

Figure A05.19. Differential Pressure ΔP34 at different heat fluxes.

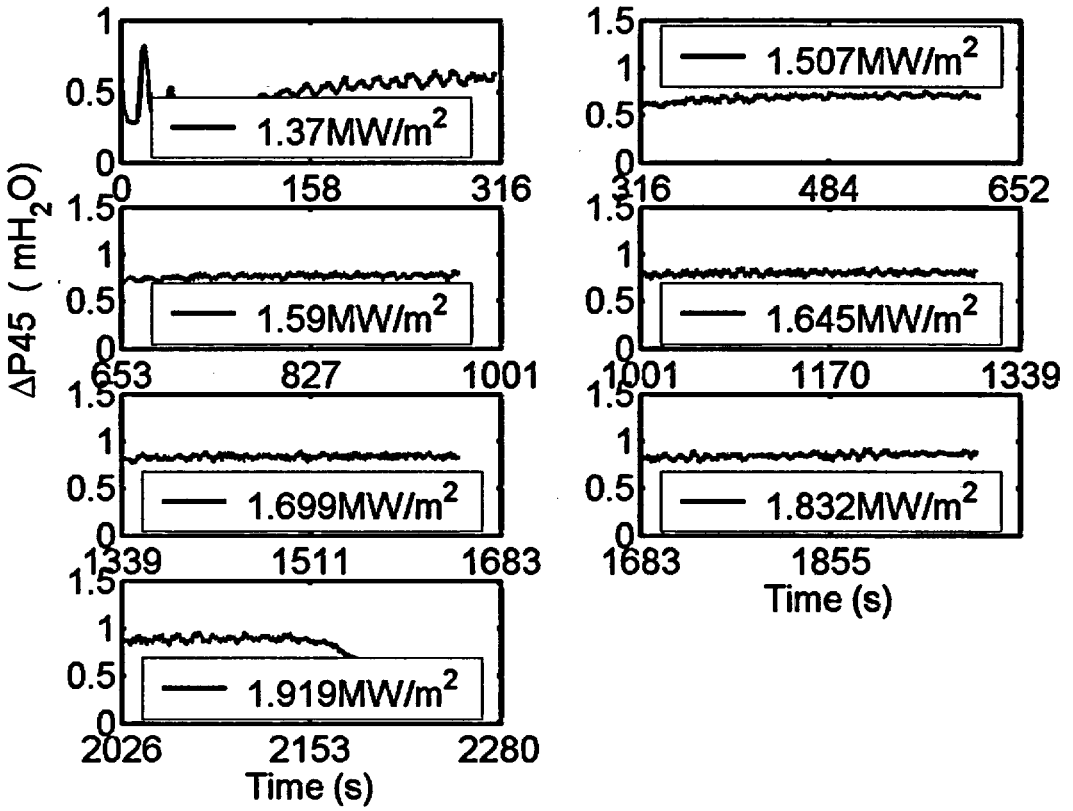

Figure A05.20. Differential Pressure ΔP45 at different heat fluxes.

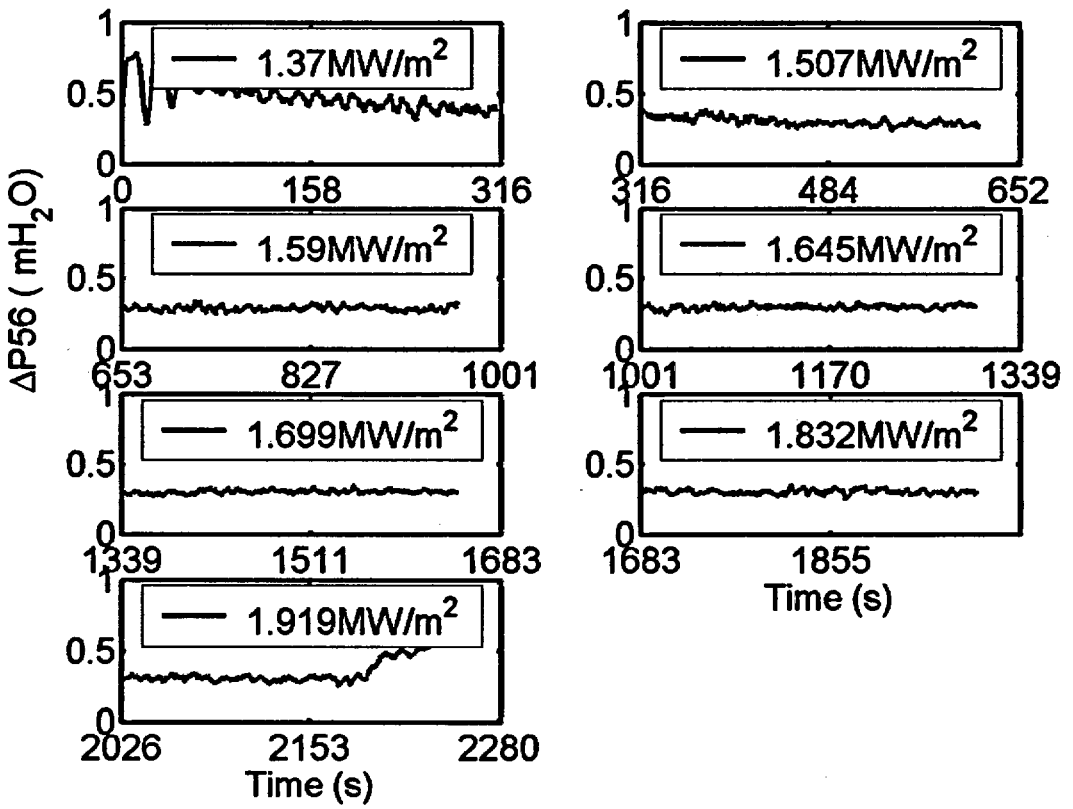

Figure A05.21. Differential Pressure ΔP56 at different heat fluxes.

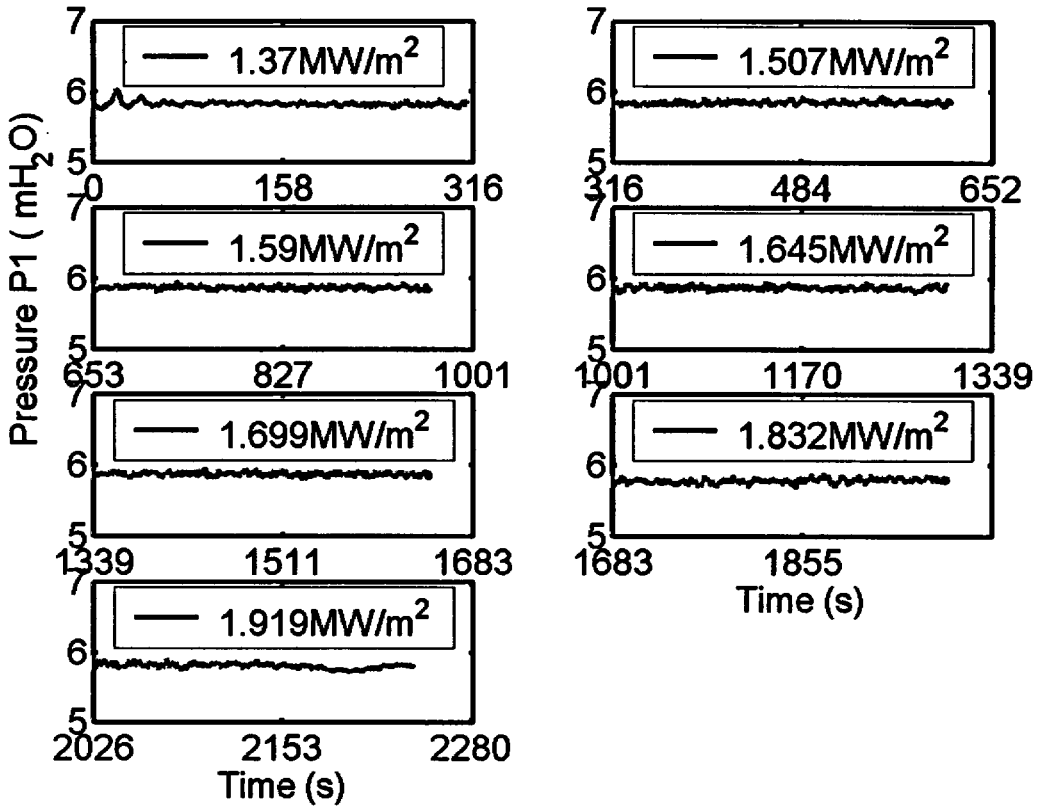

Figure A05.22. Pressure P1 at different heat fluxes.

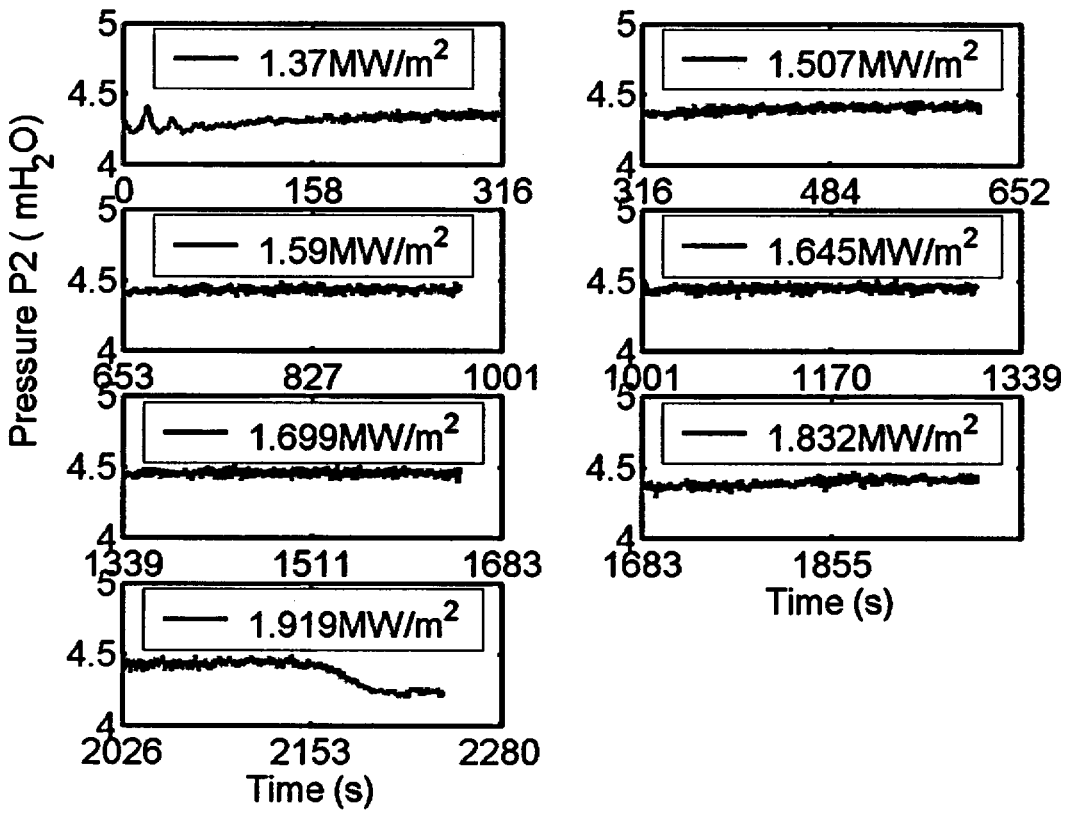

Figure A05.23. Pressure P2 at different heat fluxes.

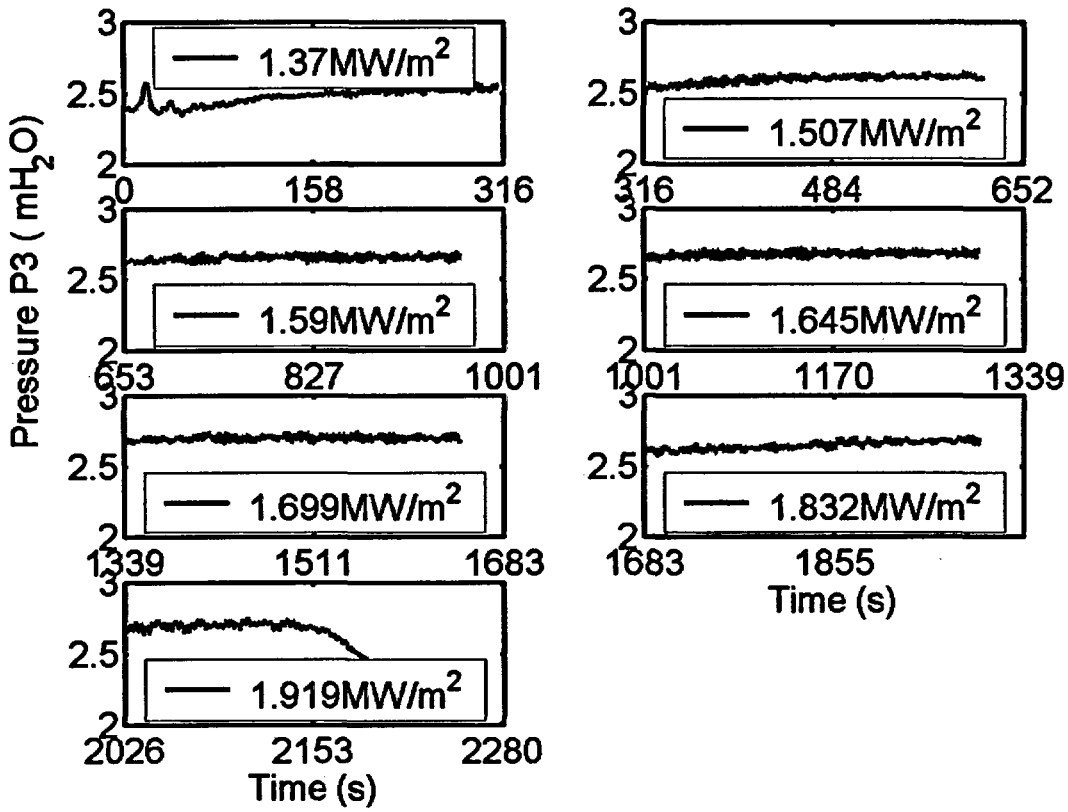

Figure A05.24. Pressure P3 at different heat fluxes.

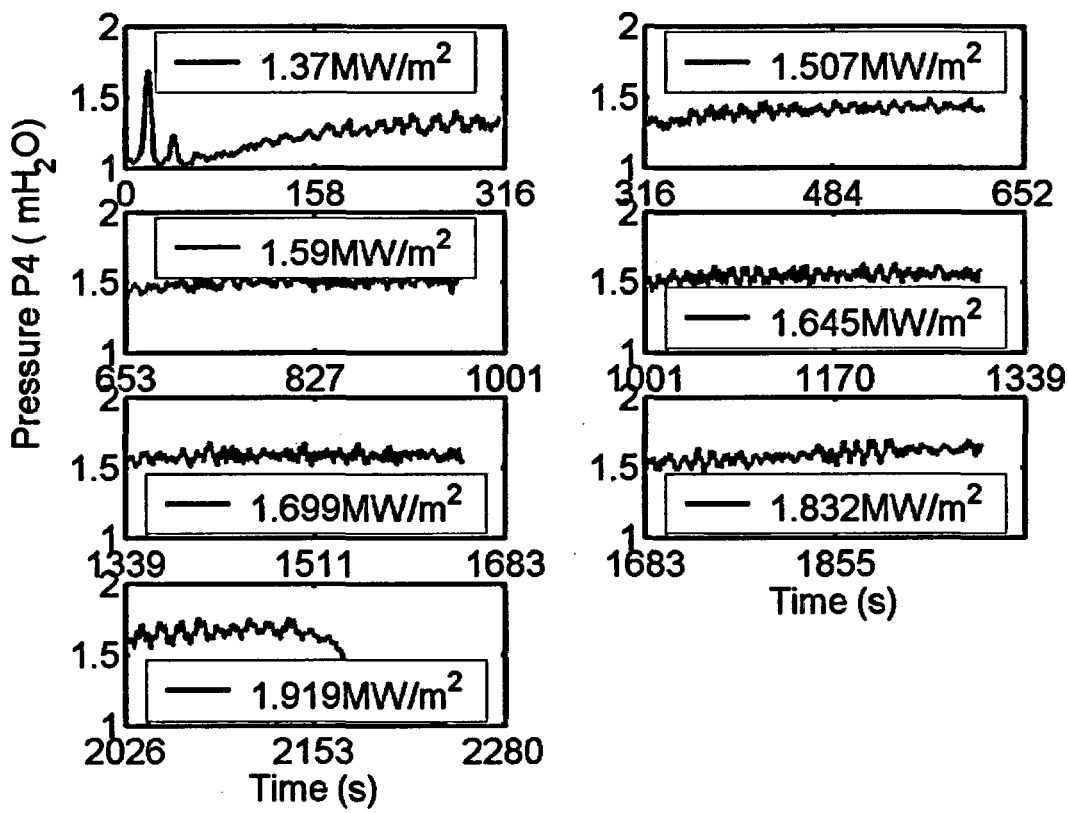

Figure 29.25. Pressure P4 at different heat fluxes.

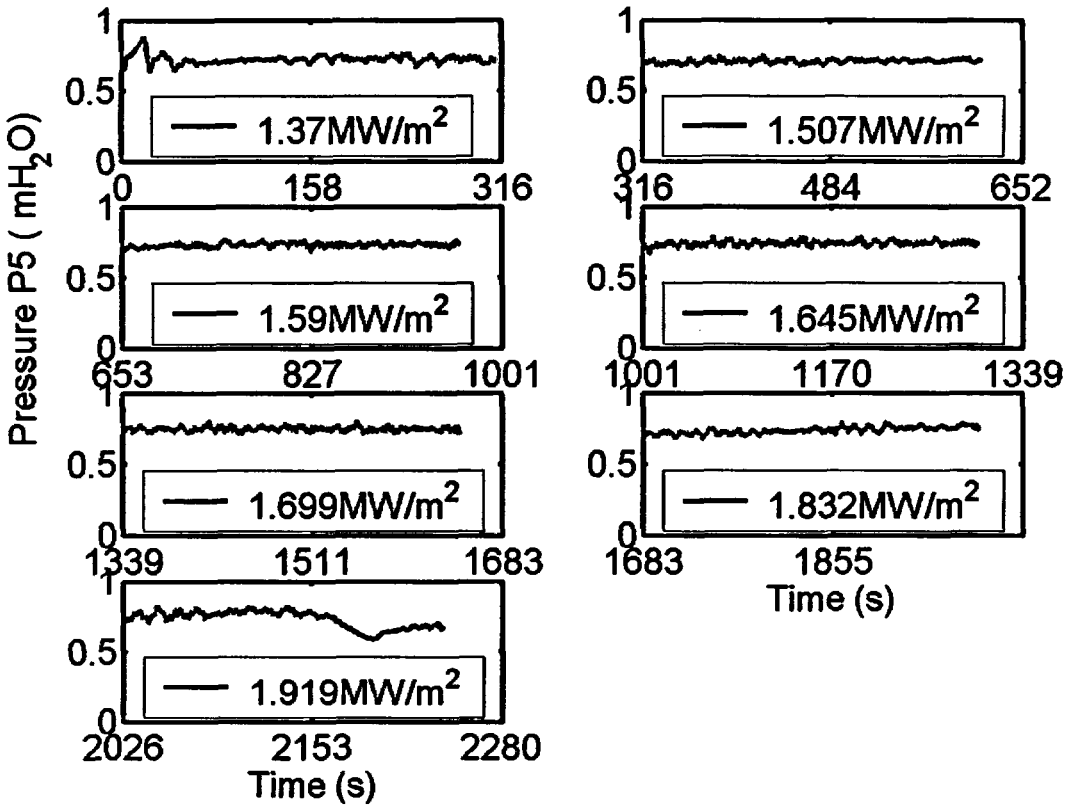

Figure A05.26. Pressure P5 at different heat fluxes.

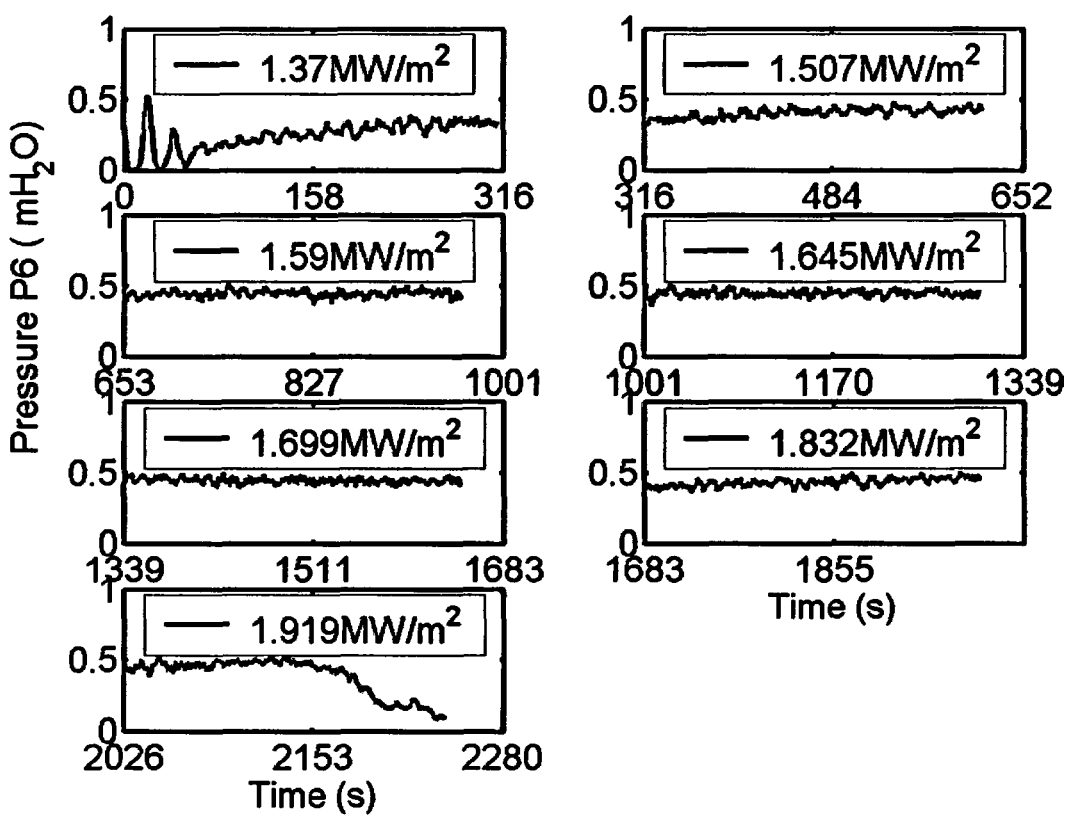

Figure A05.27. Pressure P6 at different heat fluxes.

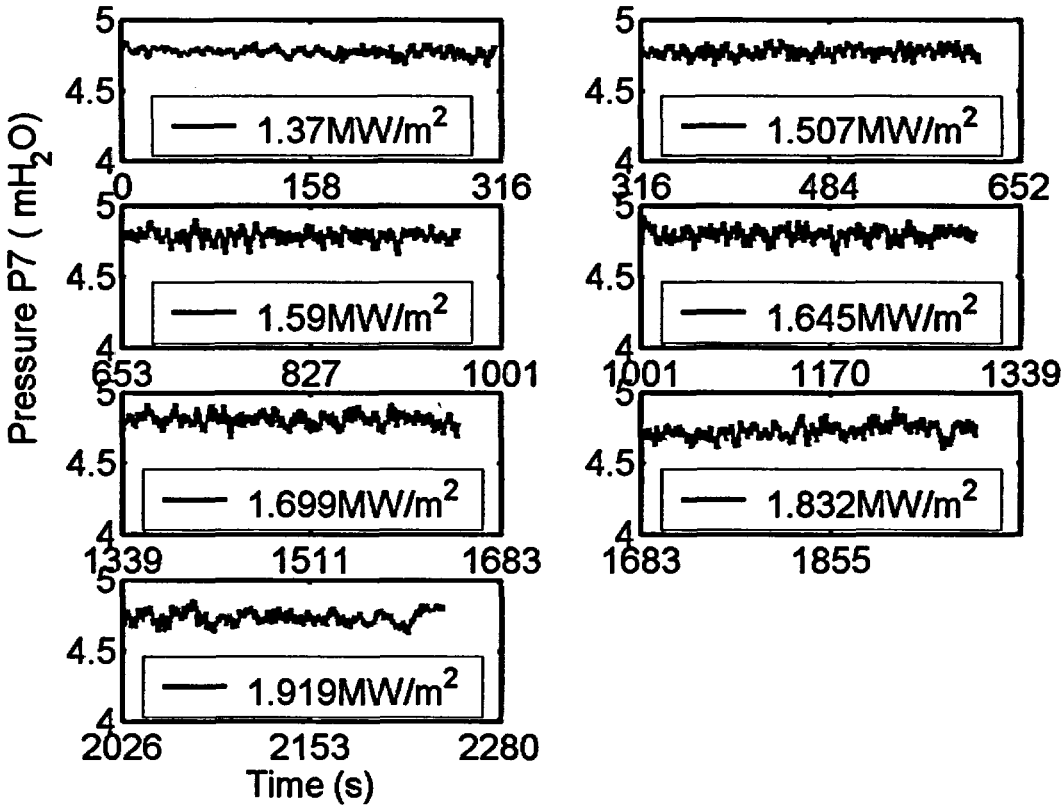

Figure A05.28. Pressure P7 at different heat fluxes.

ID #6

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T40B	2028	LC3	67	C	01/09/2003/15:30am

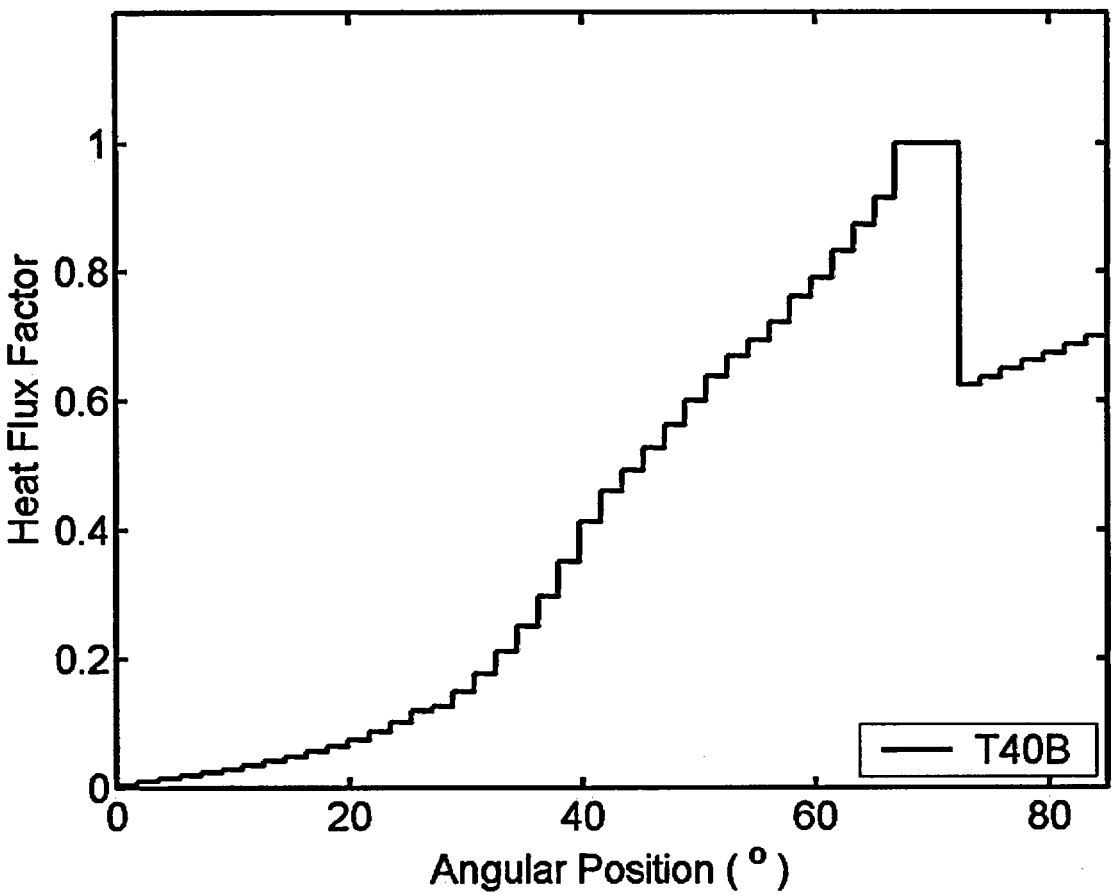

Figure A06.1. Power shape.

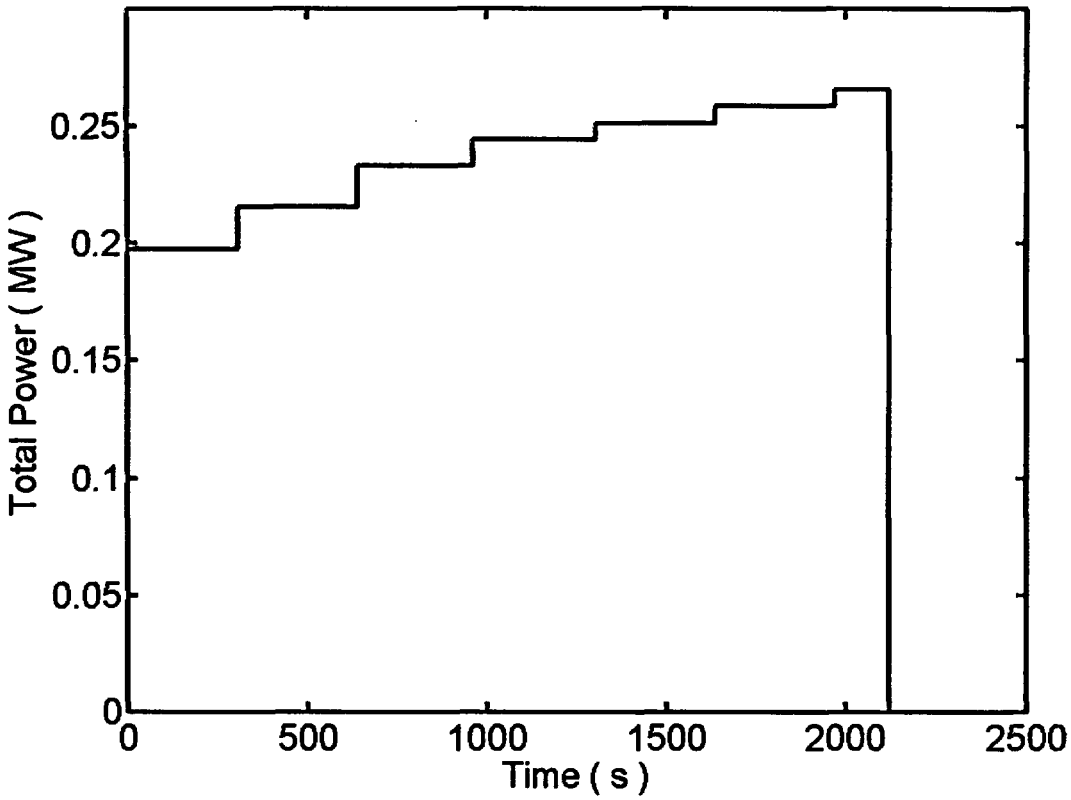

Figure A06.2. Total input power history.

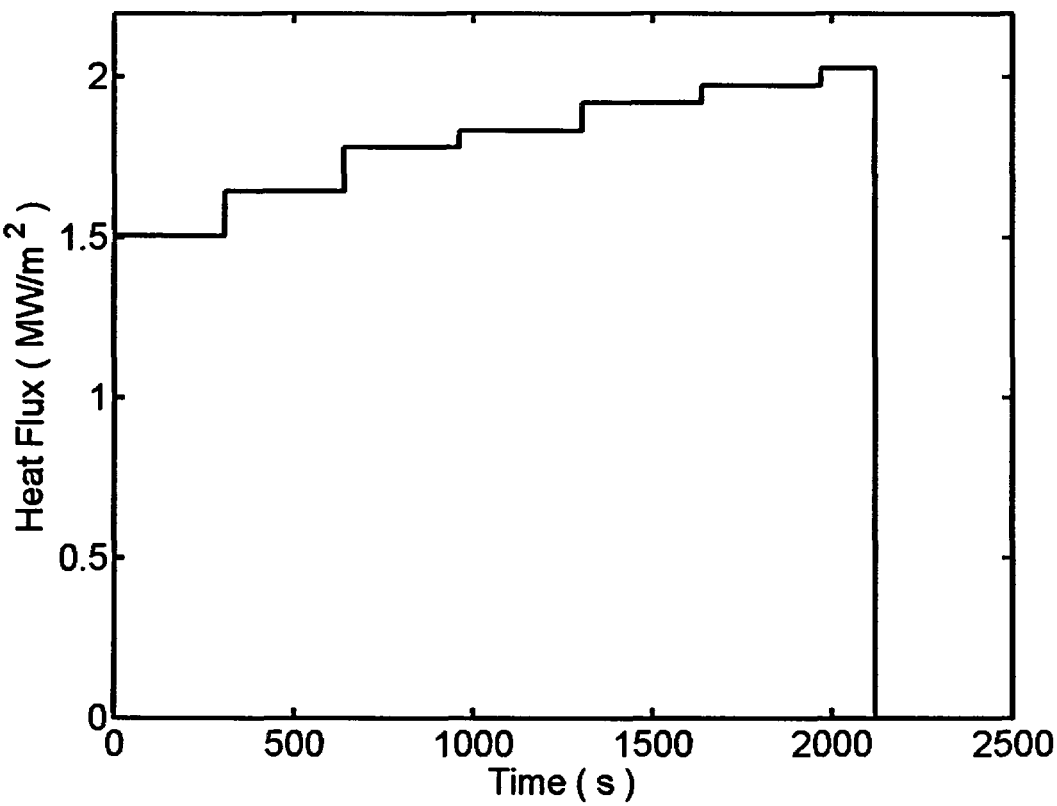

Figure A06.3. Heat flux history.

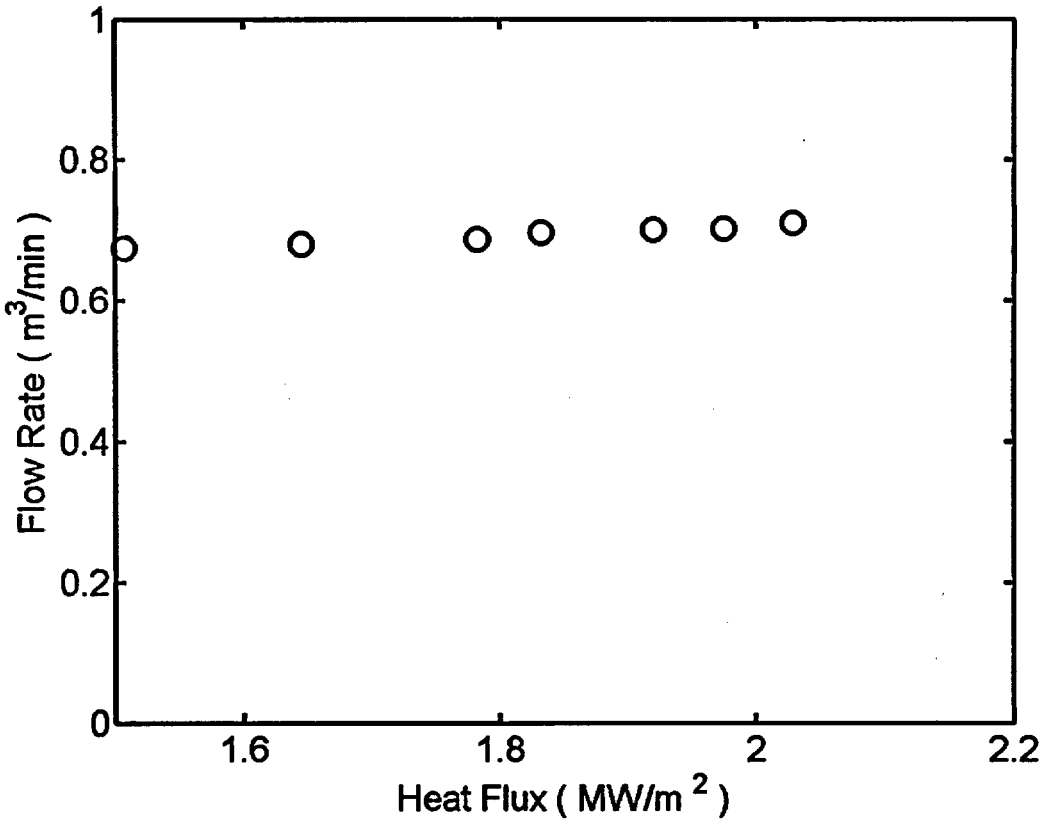

Figure A06.4. Flow rate vs. heat fluxes.

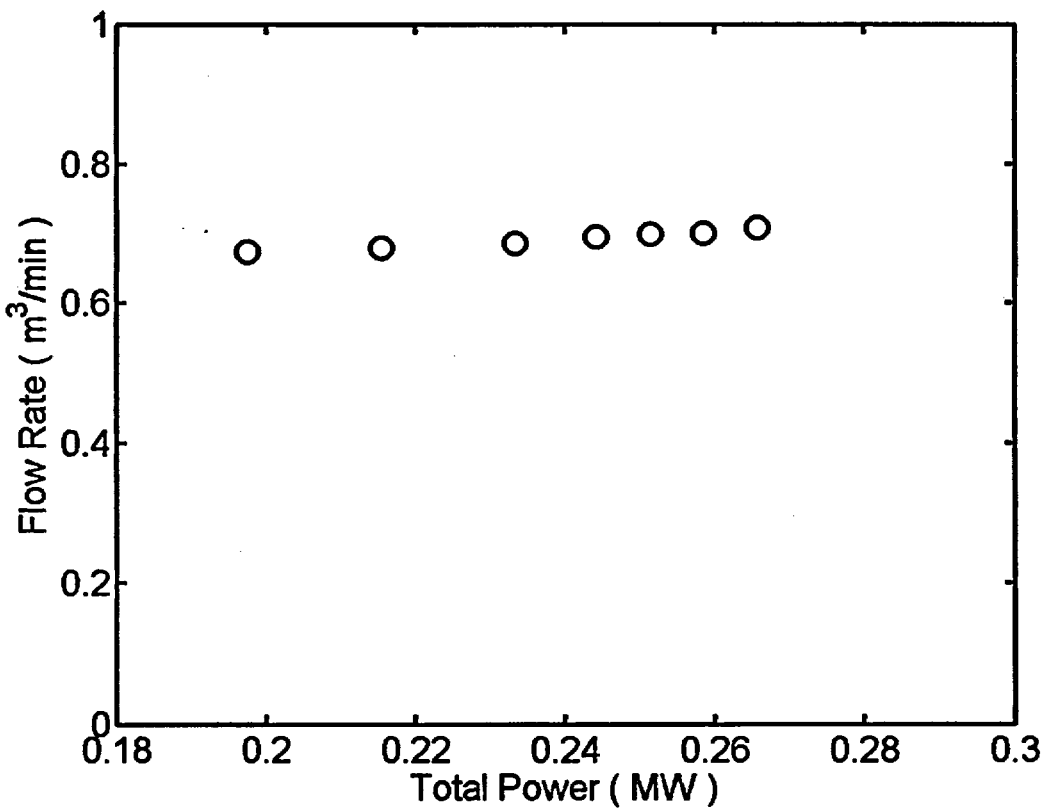

Figure A06.5. Flow rate vs. total input power.

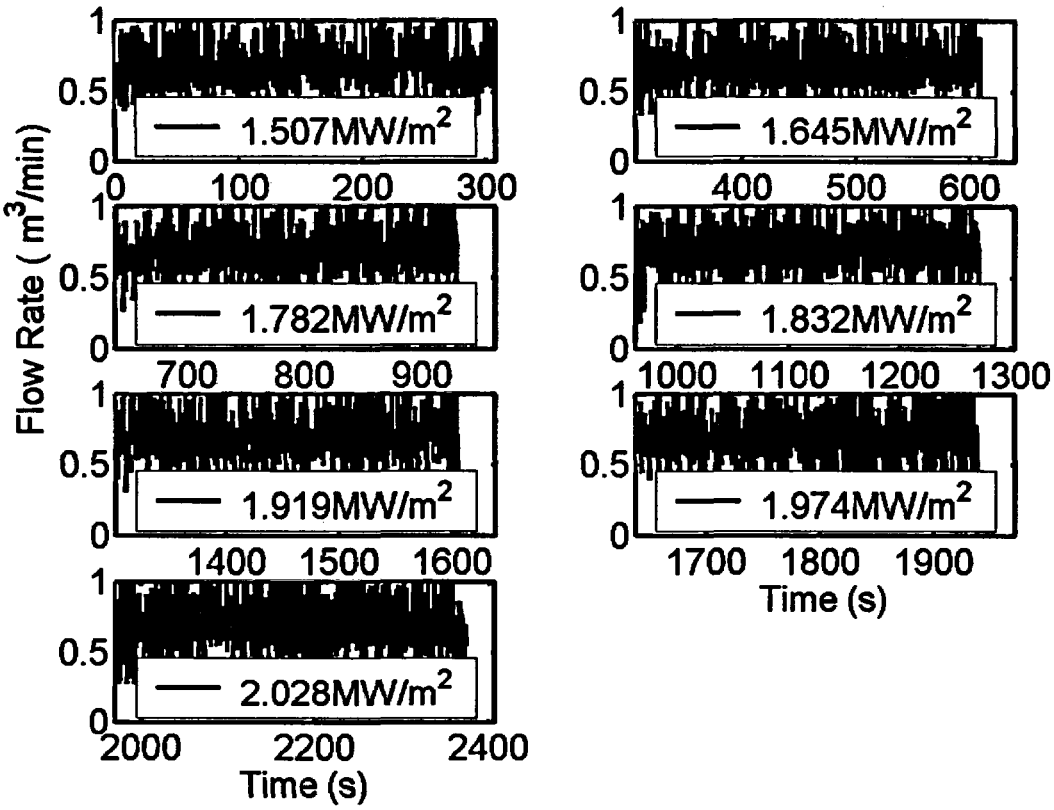

Figure A06.6. Flow rates at different heat fluxes.

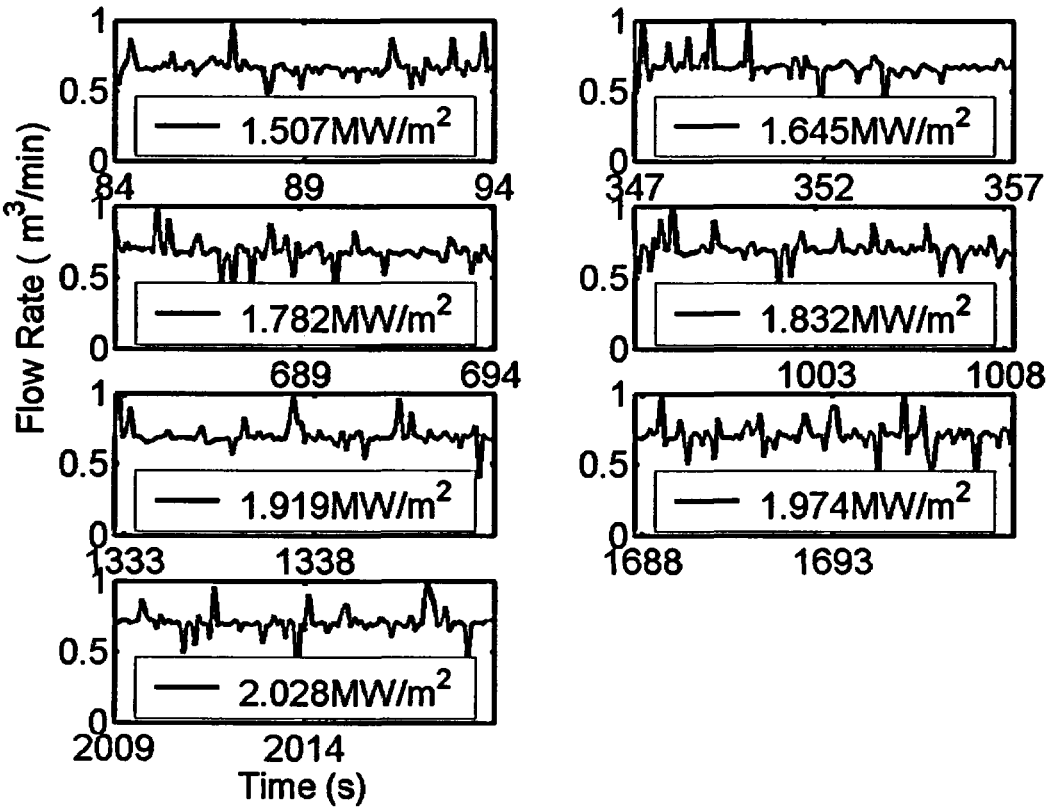

Figure A06.7. Flow rates at different heat fluxes at selected time intervals.

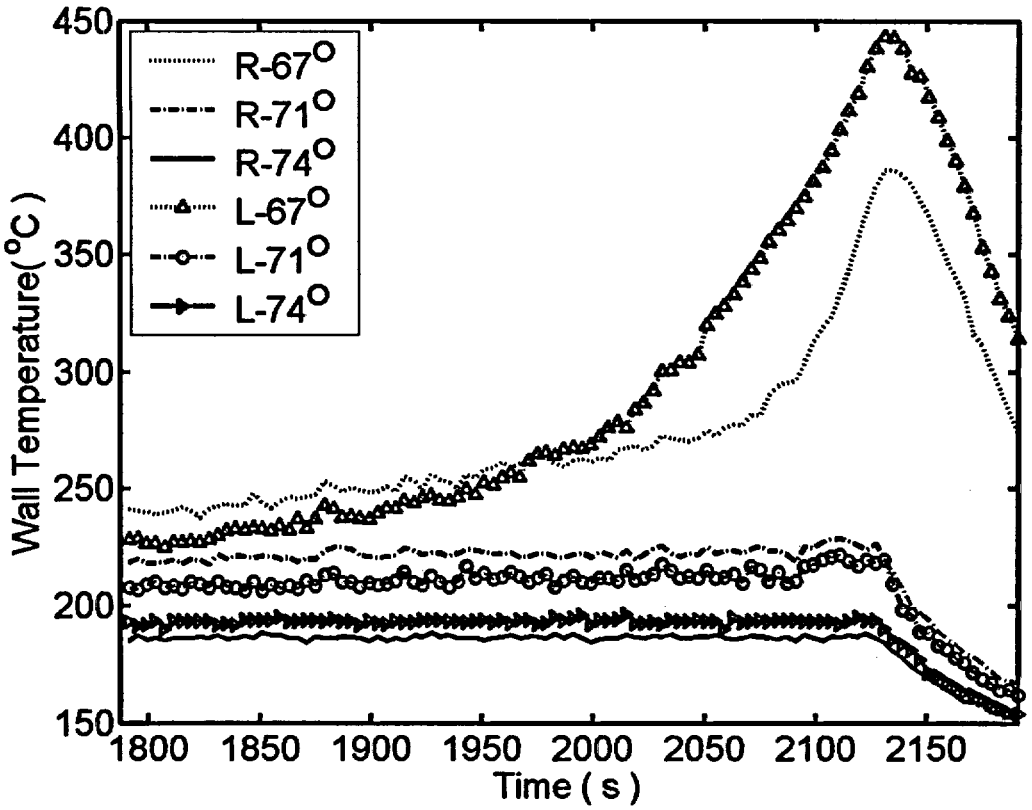

Figure A06.8. Temperature history at CHF.

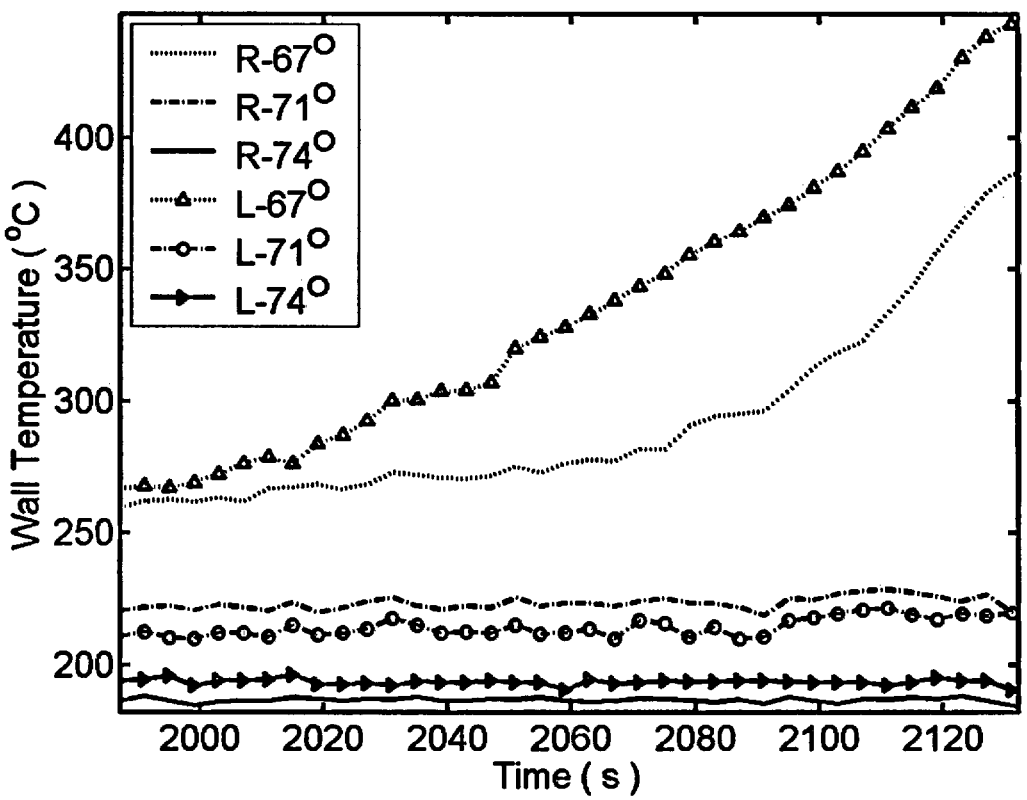

Figure A06.9. Temperature history at CHF in detail.

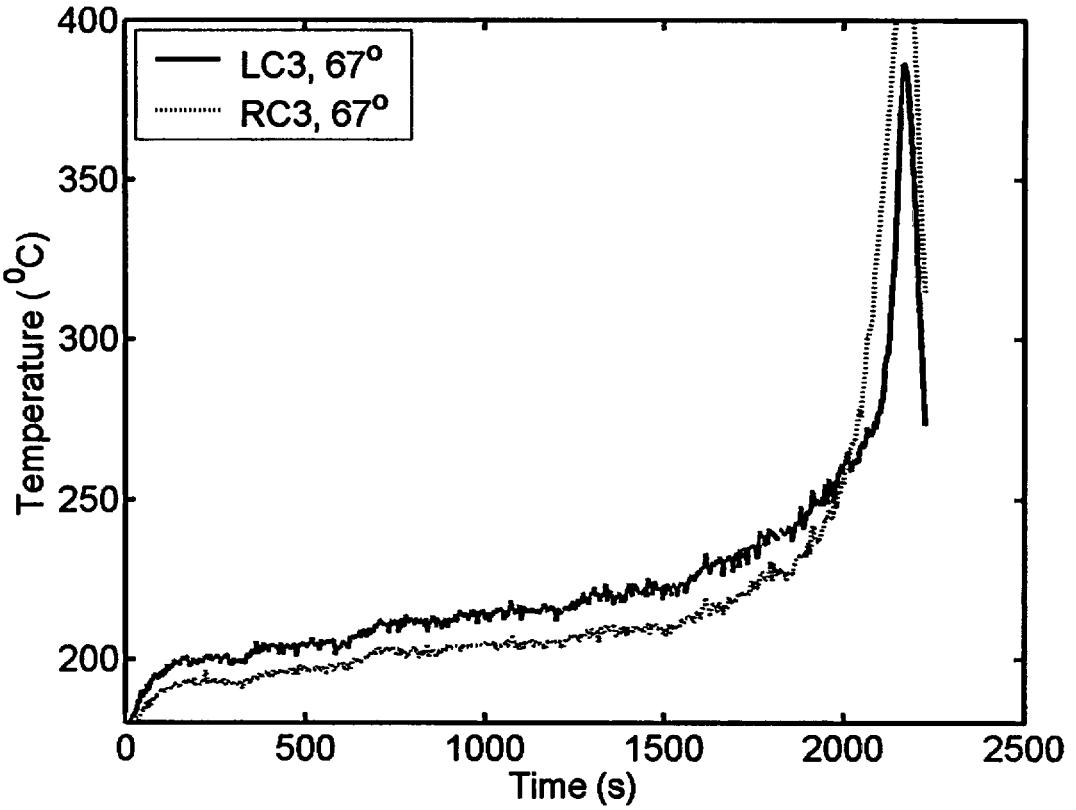

Figure A06.10. Wall temperature history measured by two thermocouples LC3 and RC3.

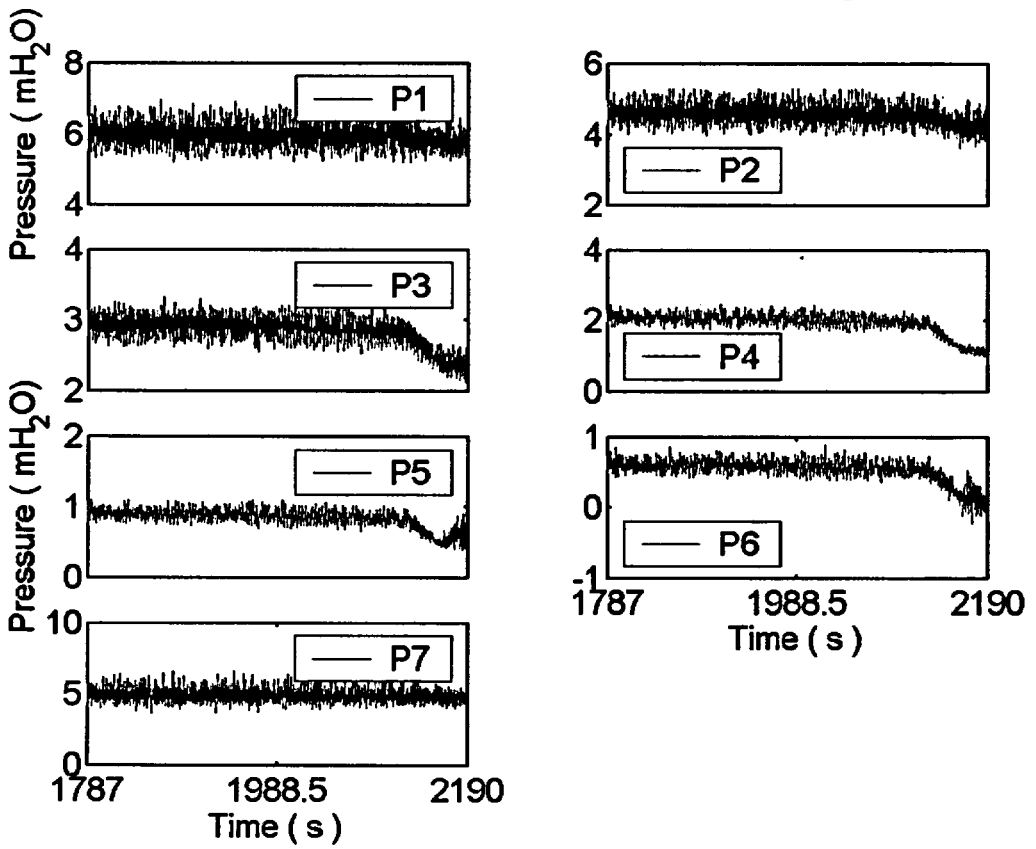

Figure A06.11. Pressure transducer data at q = 2.028 MW/m^2.

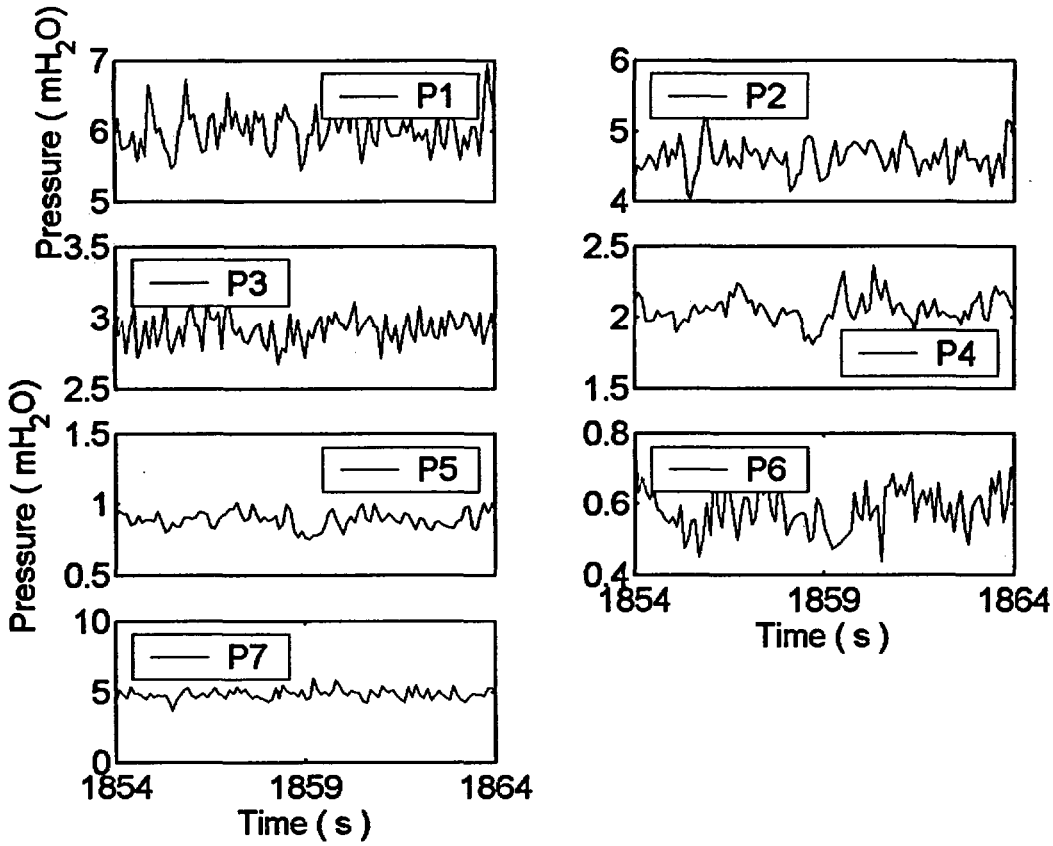

Figure A06.12. Pressure data in detail at q = 2.028 MW/m^2.

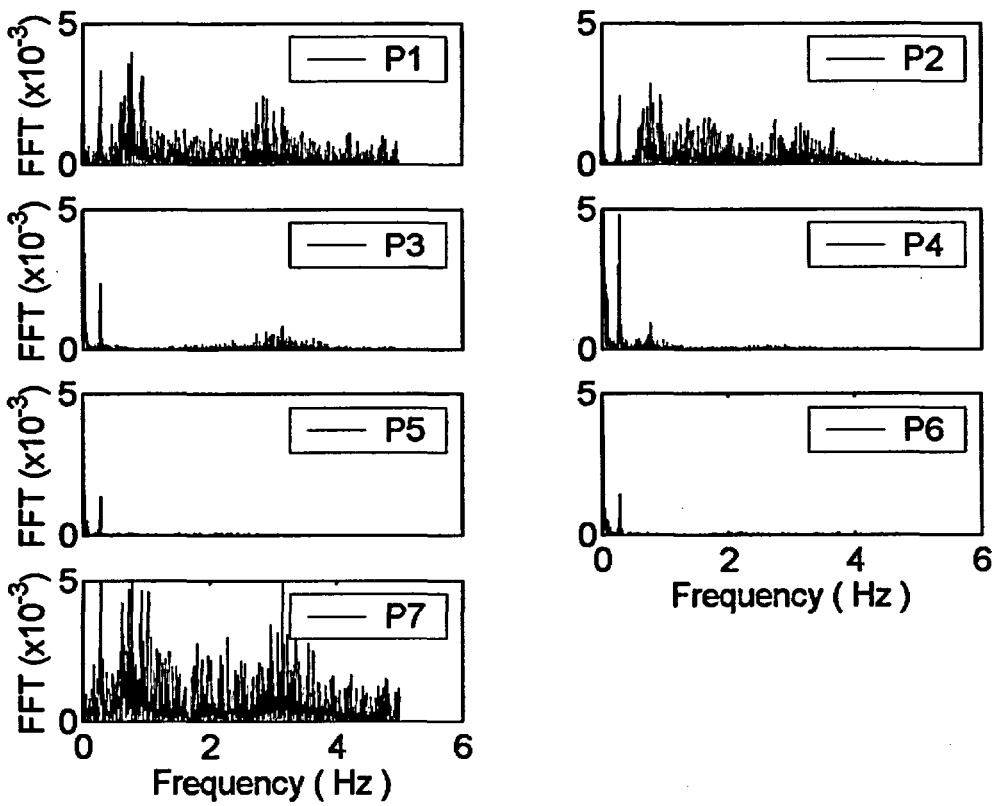

Figure A06.13. FFT of pressure time series at q = 2.028 MW/m^2.

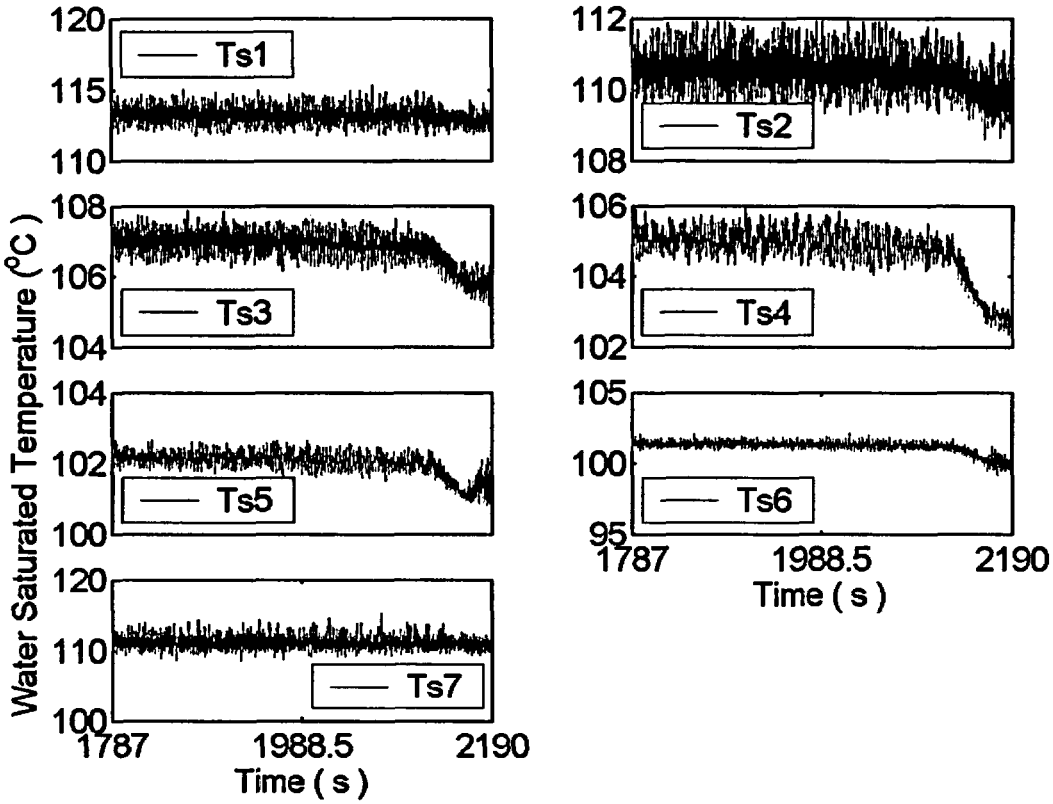

Figure A06.14. Water saturation temperature calculated from local pressure data at q = 2.028 MW/m^2.

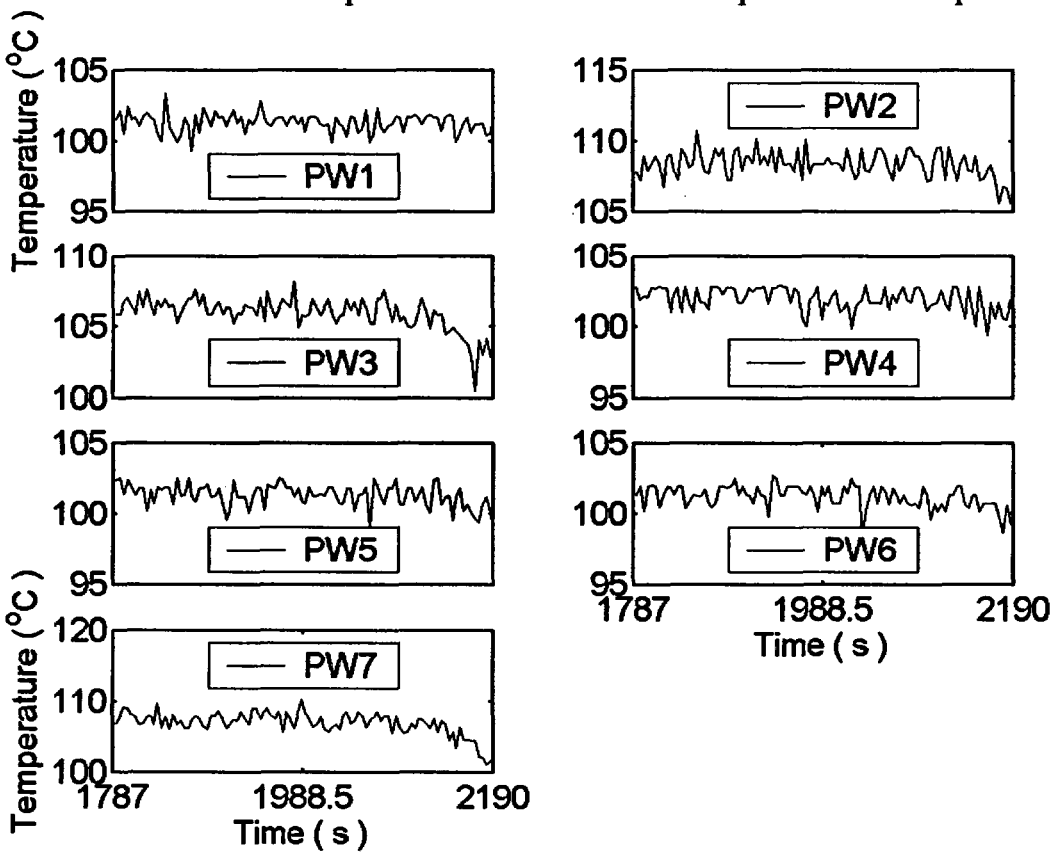

Figure A06.15. Water temperature measured at location of pressure transducer at q = 2.028 MW/m^2.

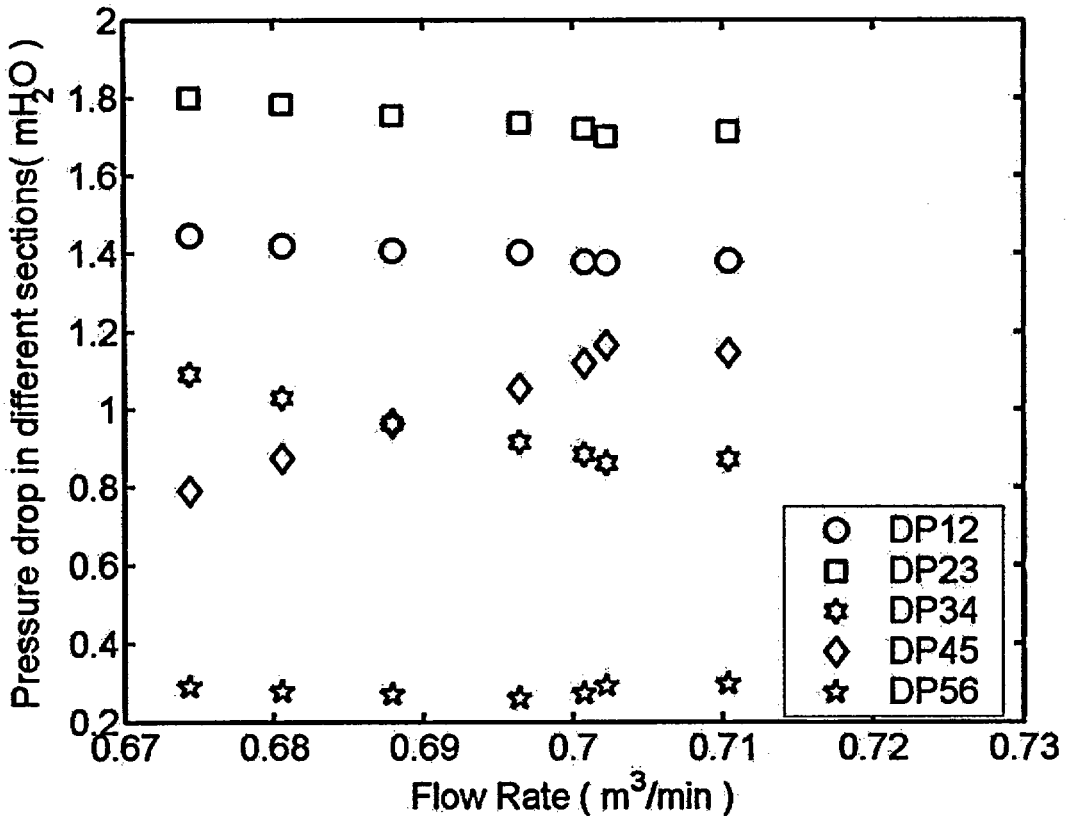

Figure A06.16. Pressure drop vs. flow rate at different heat fluxes.

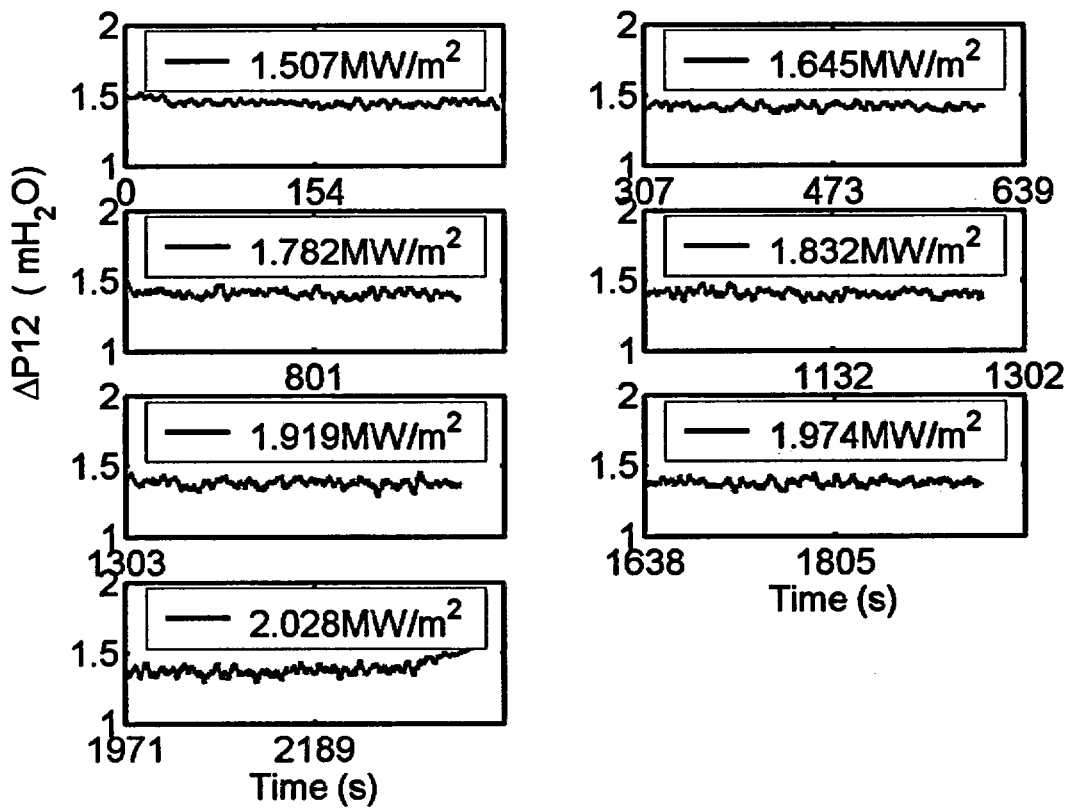

Figure A06.17. Differential Pressure ΔP12 at different heat fluxes.

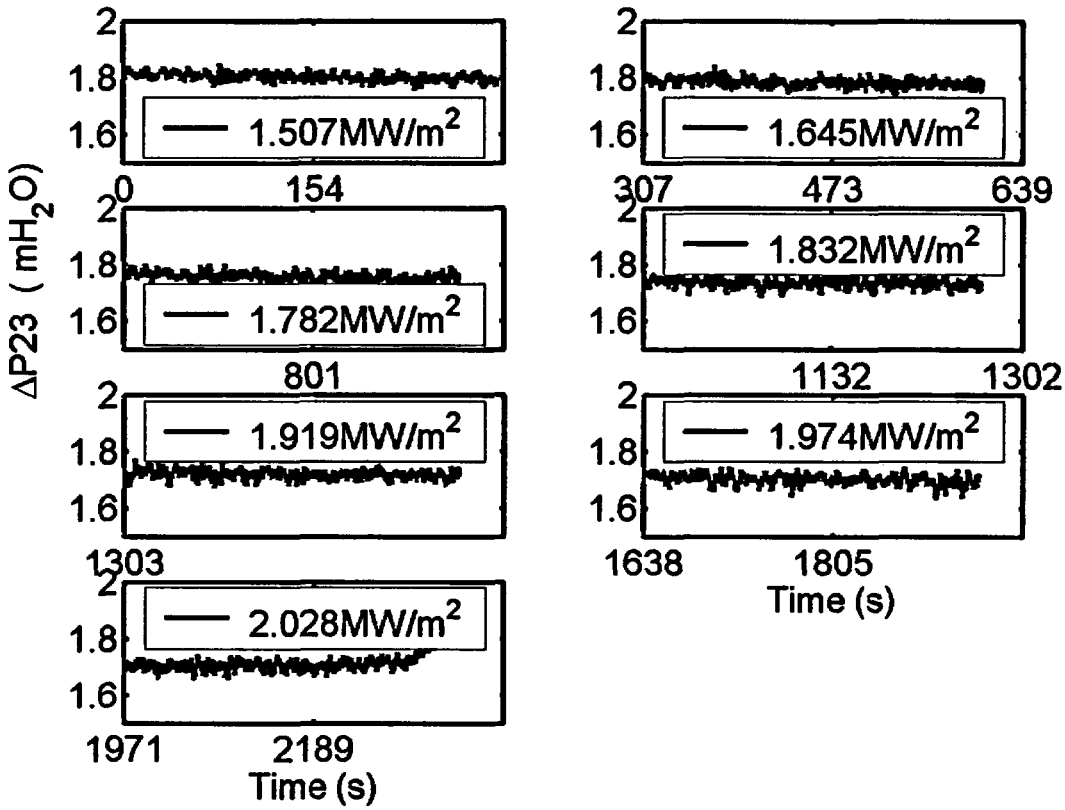

Figure A06.18. Differential Pressure ΔP23 at different heat fluxes.

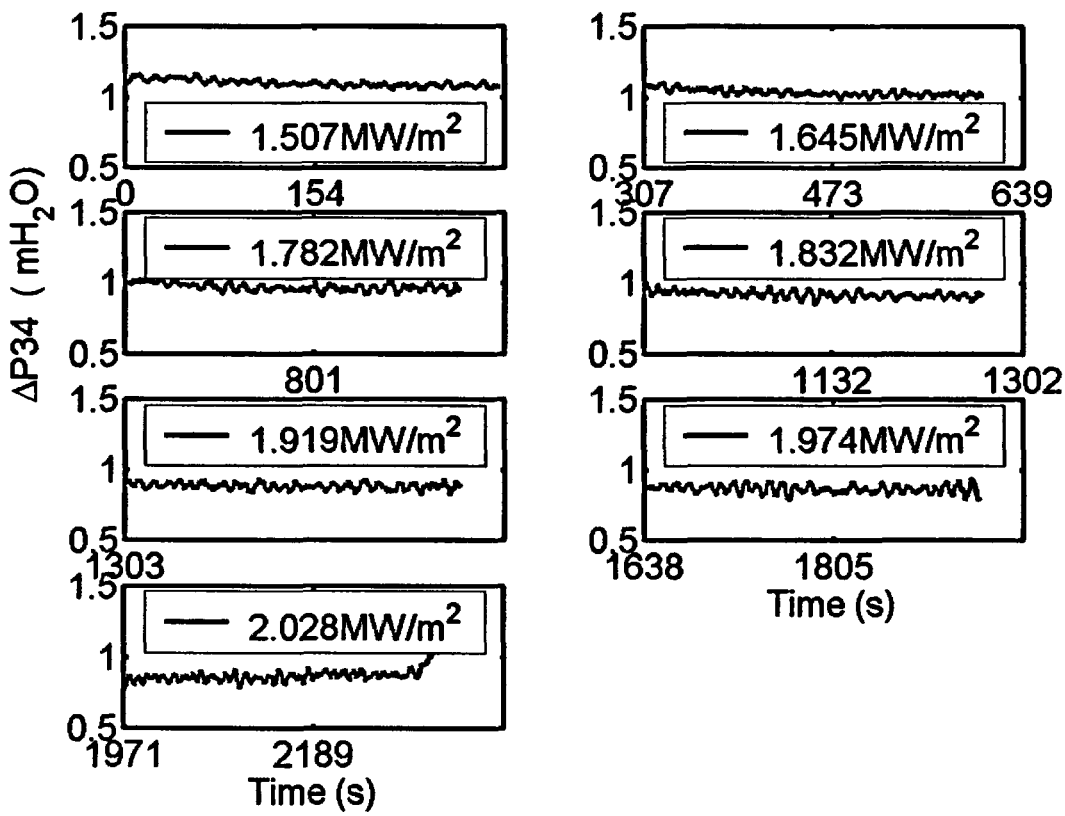

Figure A06.19. Differential Pressure ΔP34 at different heat fluxes.

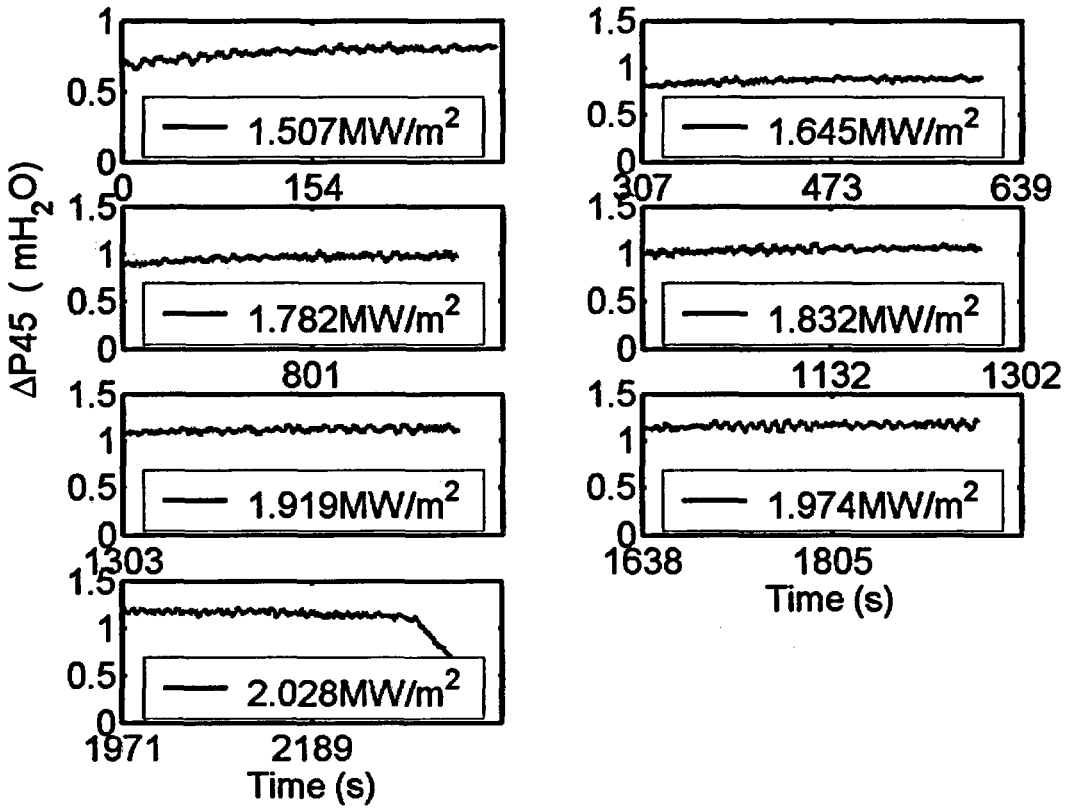

Figure A06.20. Differential Pressure ΔP45 at different heat fluxes.

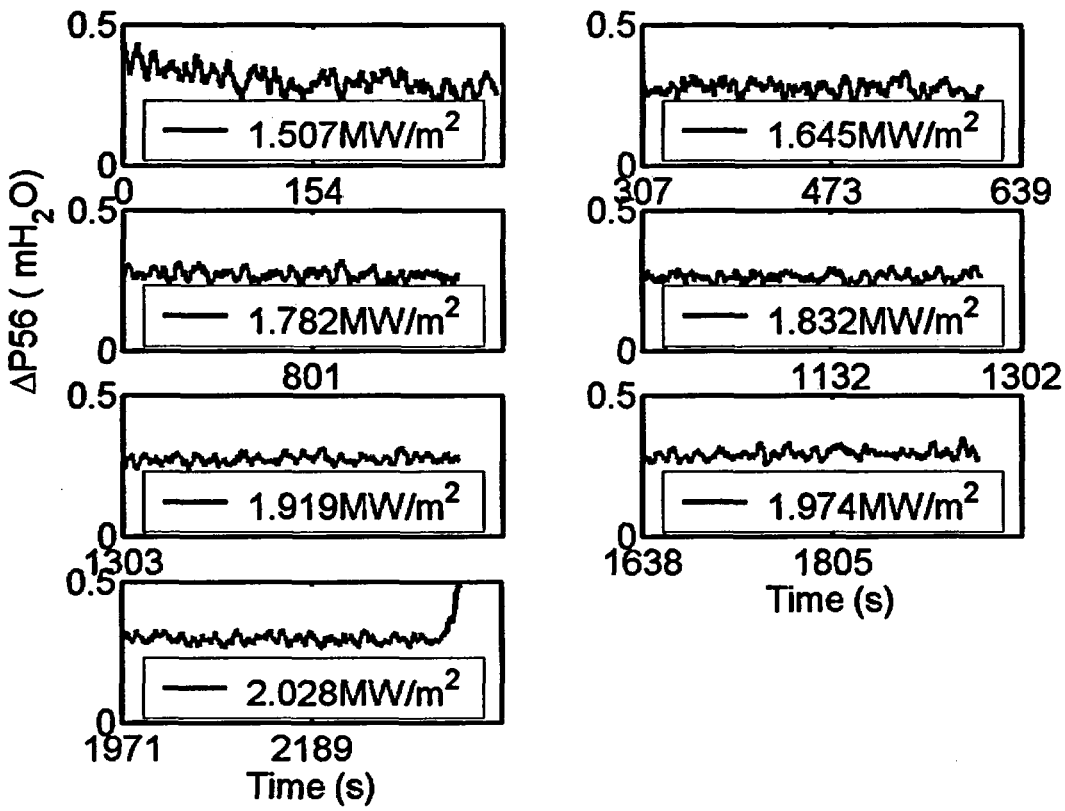

Figure A06.21. Differential Pressure ΔP56 at different heat fluxes.

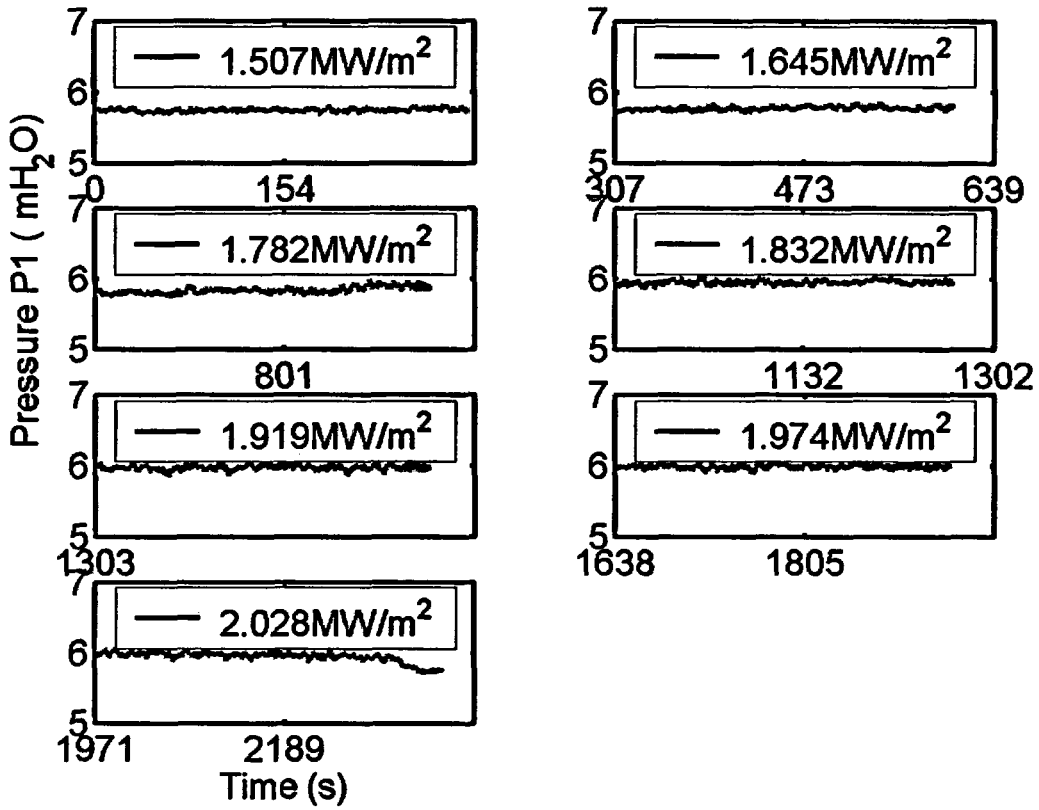

Figure A06.22. Pressure P1 at different heat fluxes.

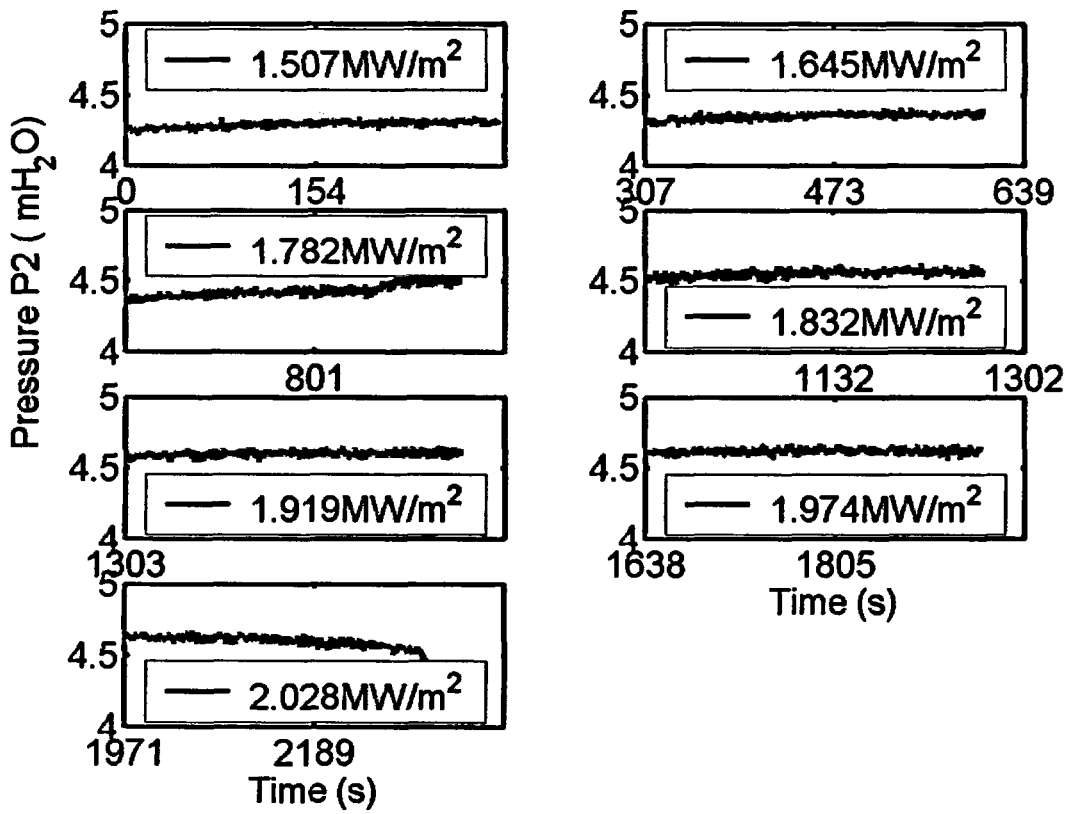

Figure A06.23. Pressure P2 at different heat fluxes.

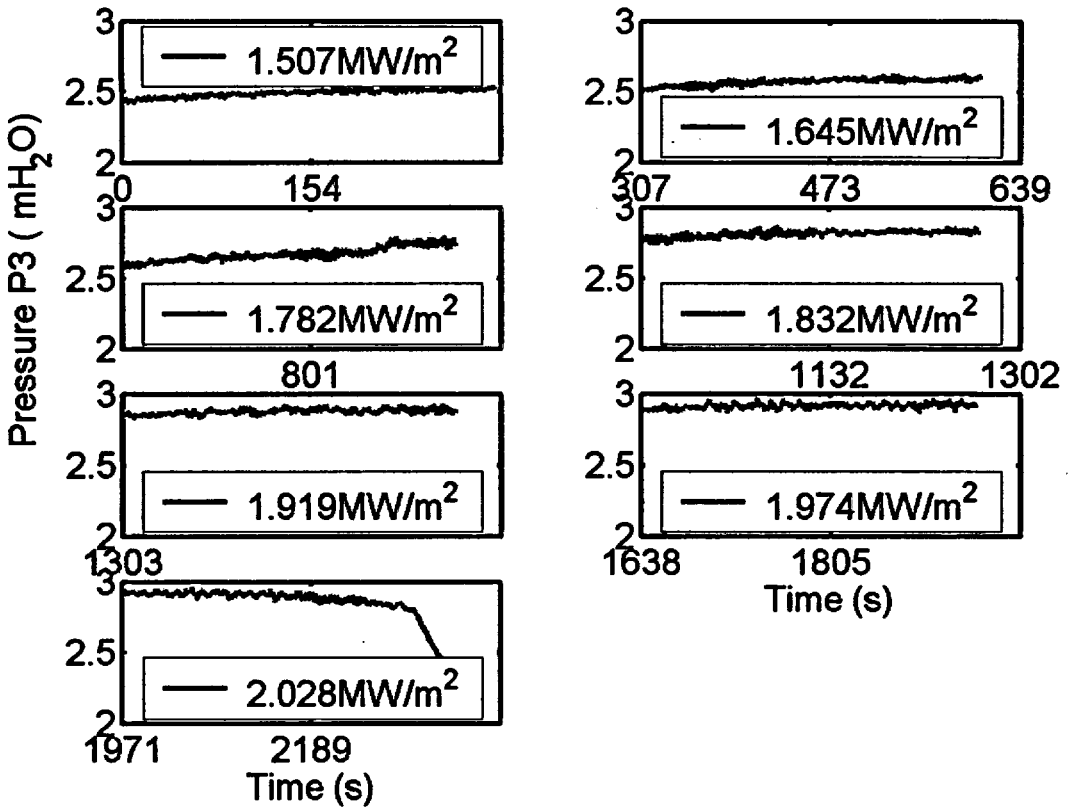

Figure A06.24. Pressure P3 at different heat fluxes.

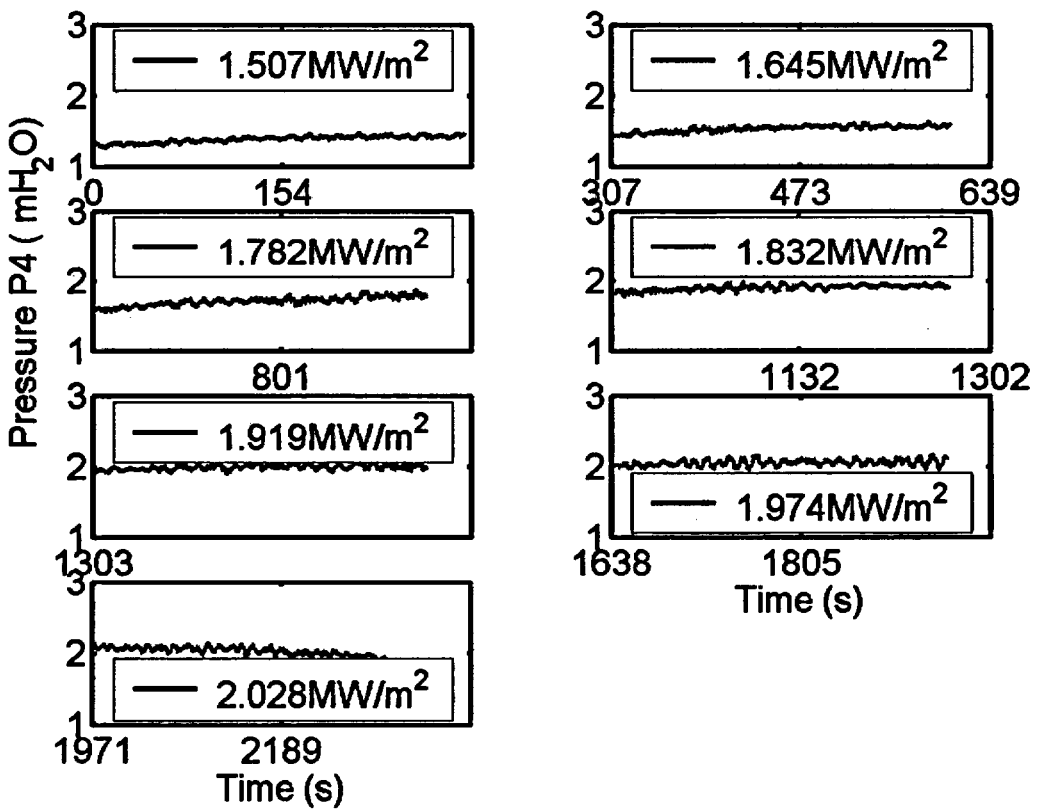

Figure 29.25. Pressure P4 at different heat fluxes.

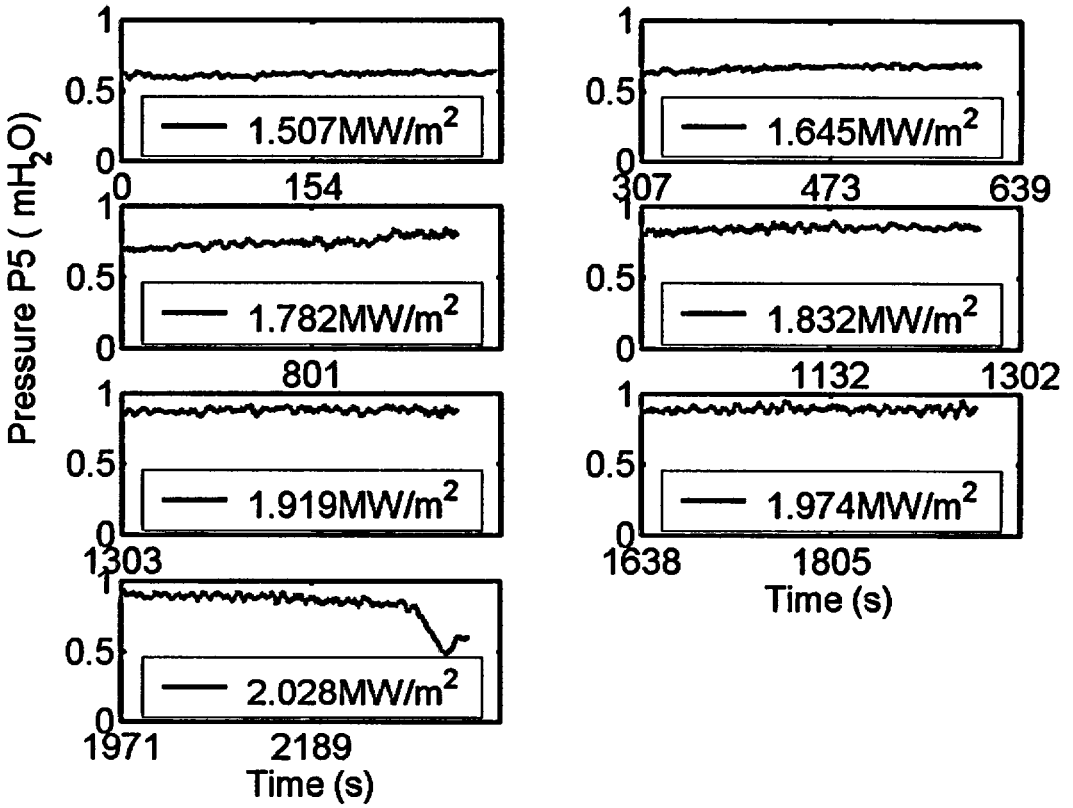

Figure A06.26. Pressure P5 at different heat fluxes.

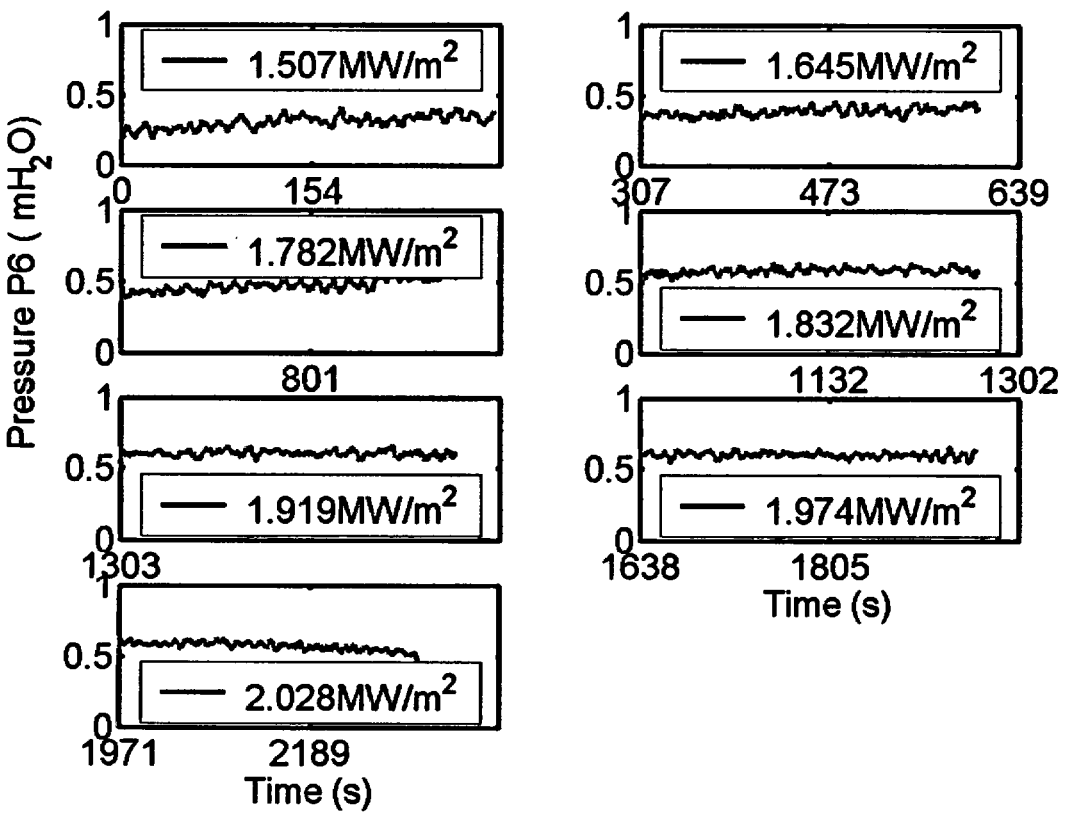

Figure A06.27. Pressure P6 at different heat fluxes.

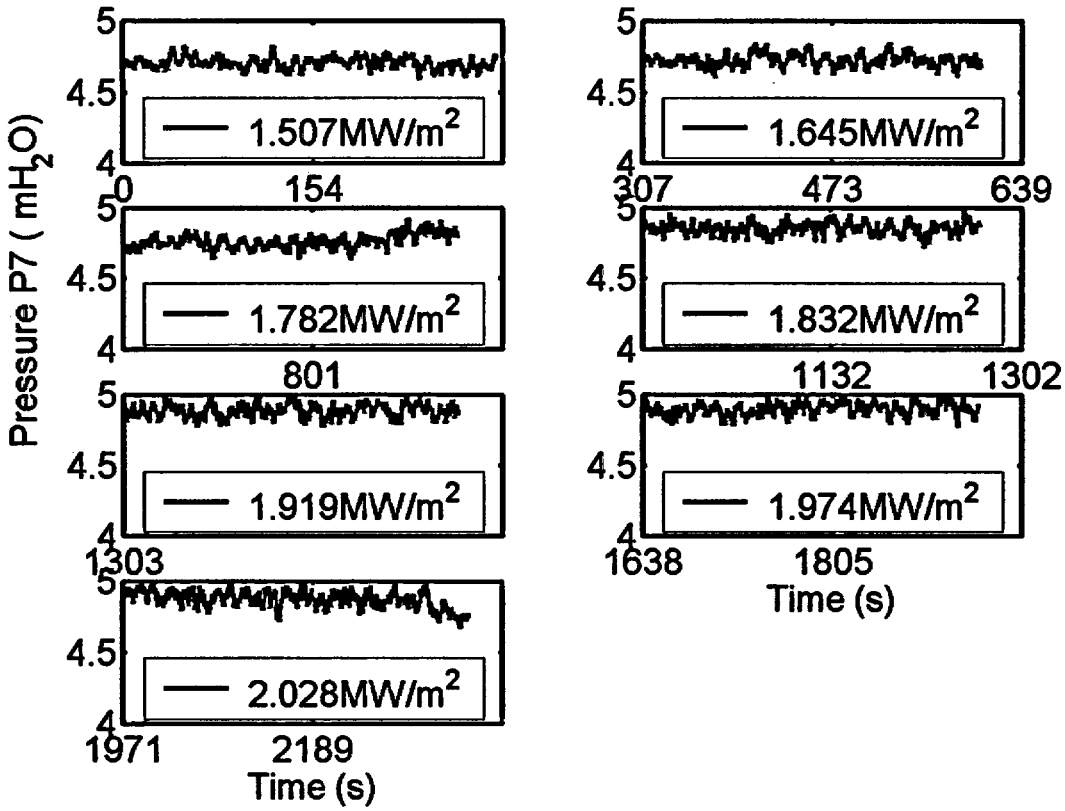

Figure A06.28. Pressure P7 at different heat fluxes.

ID #7

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T40D	1782	LC3	67	B	11/27/2002/14:30

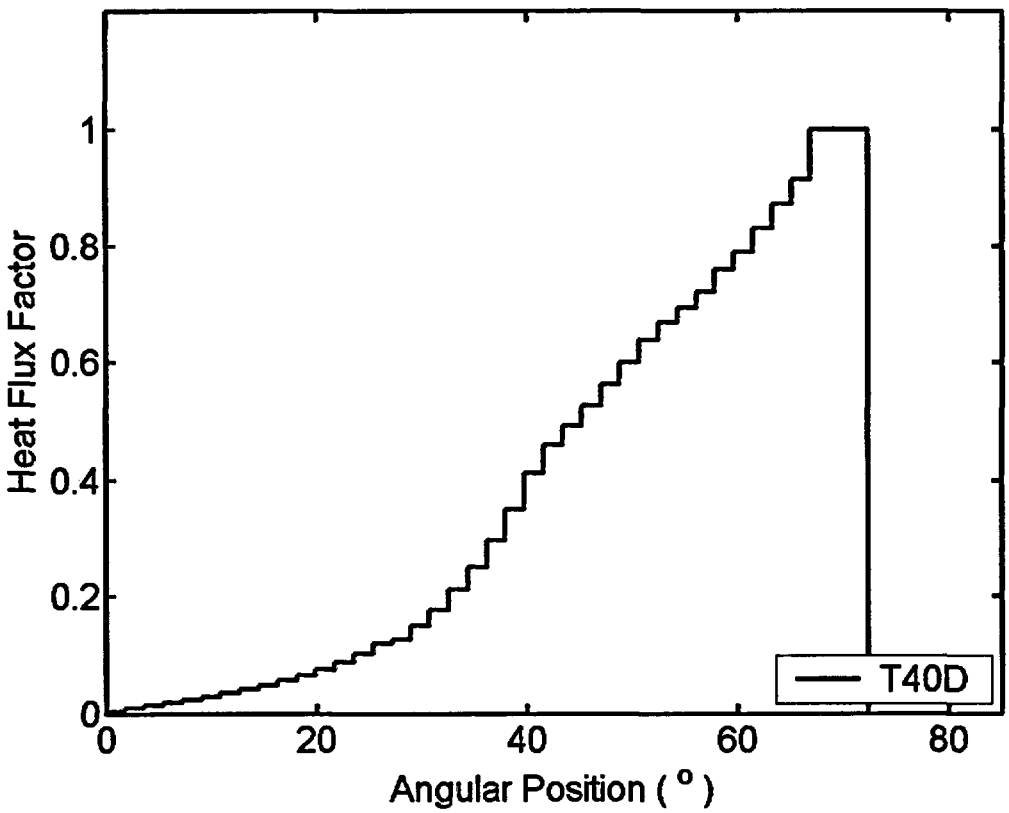

Figure A07.1. Power shape.

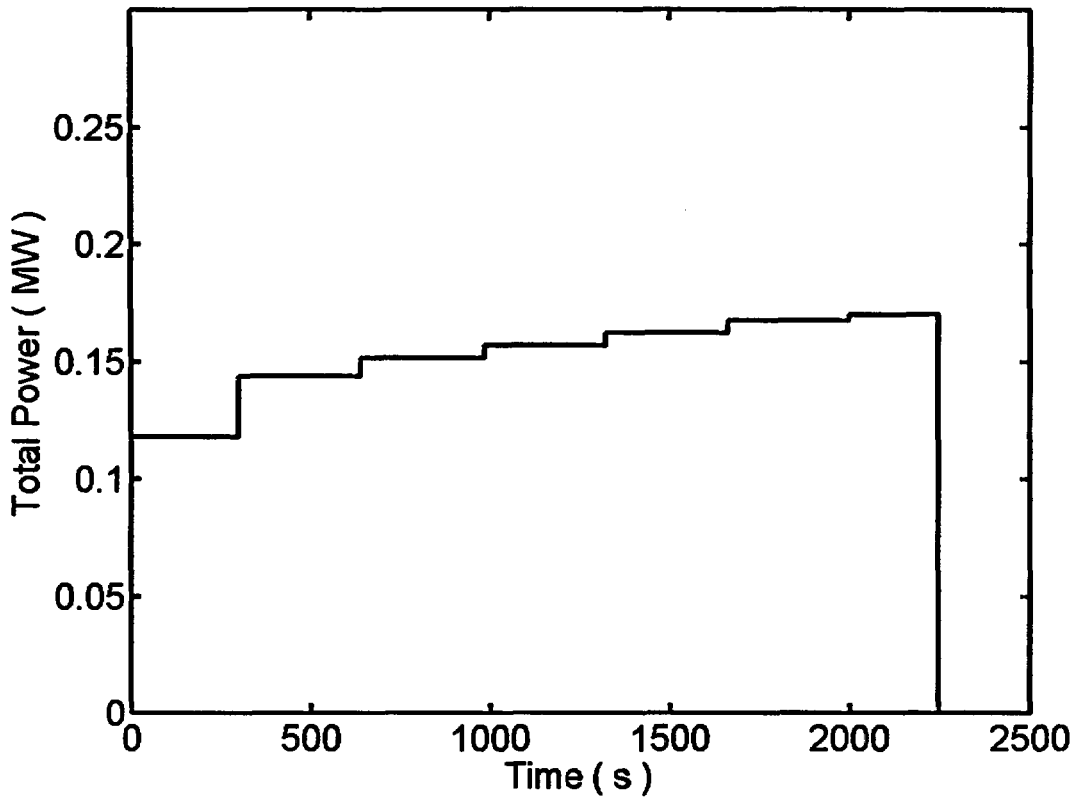

Figure A07.2. Total input power history.

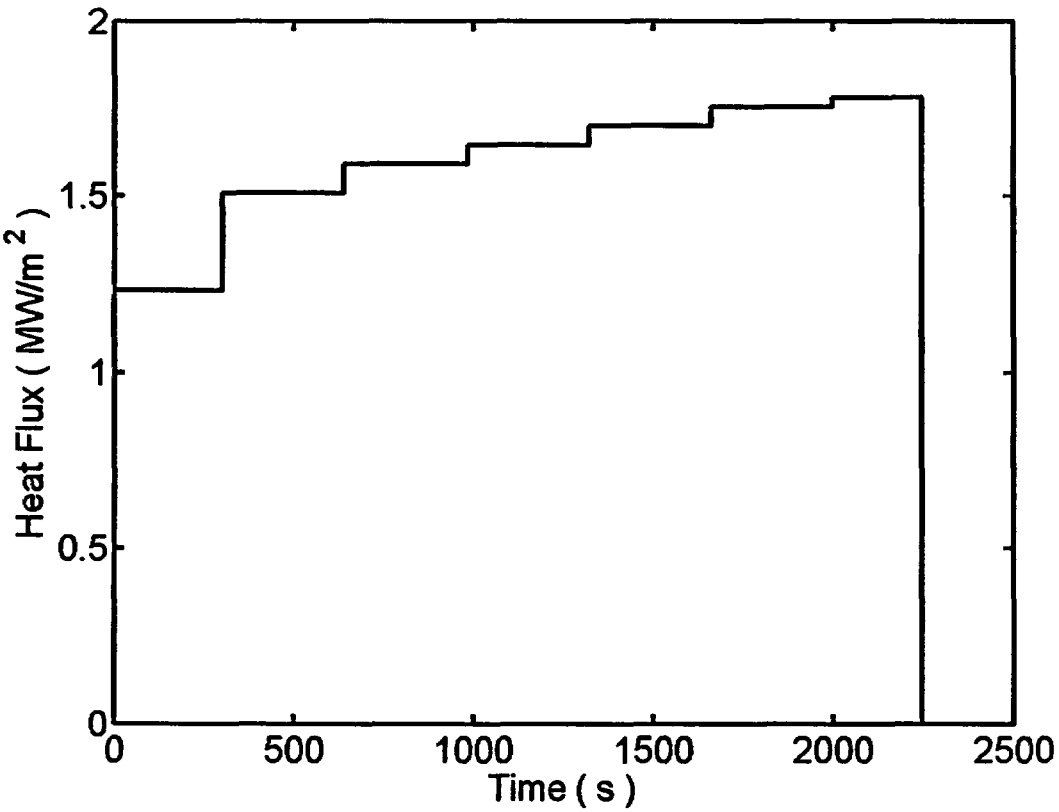

Figure A07.3. Heat flux history.

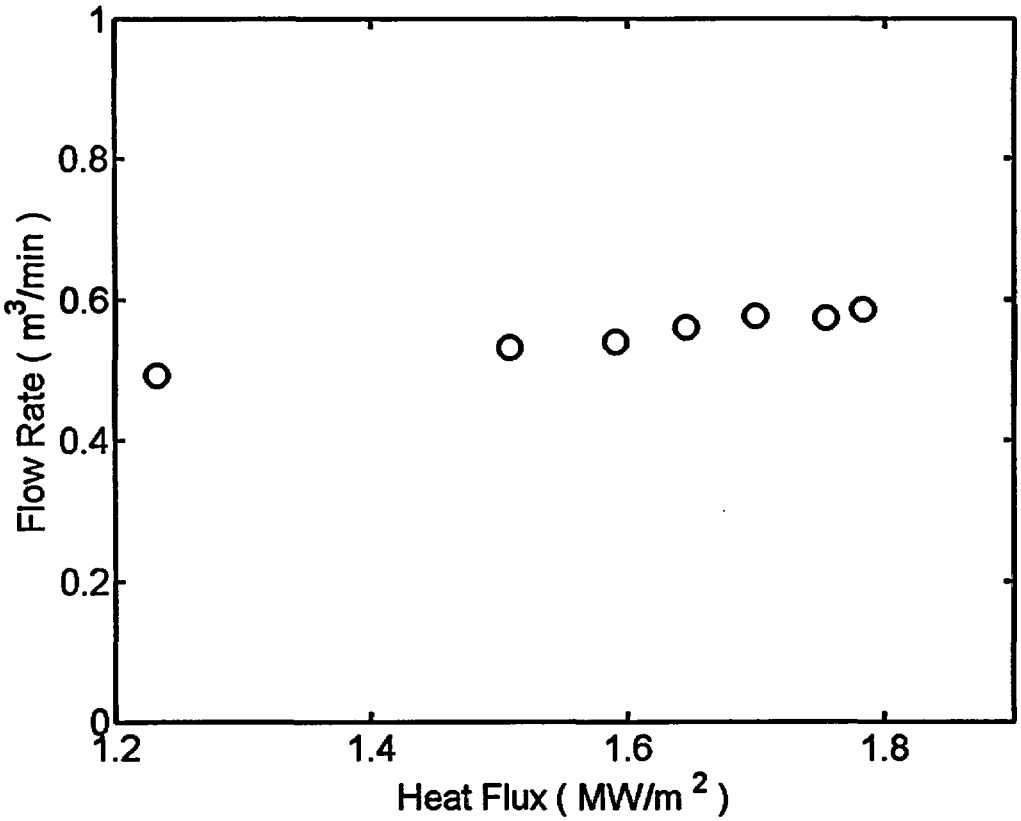

Figure A07.4. Flow rate vs. heat fluxes.

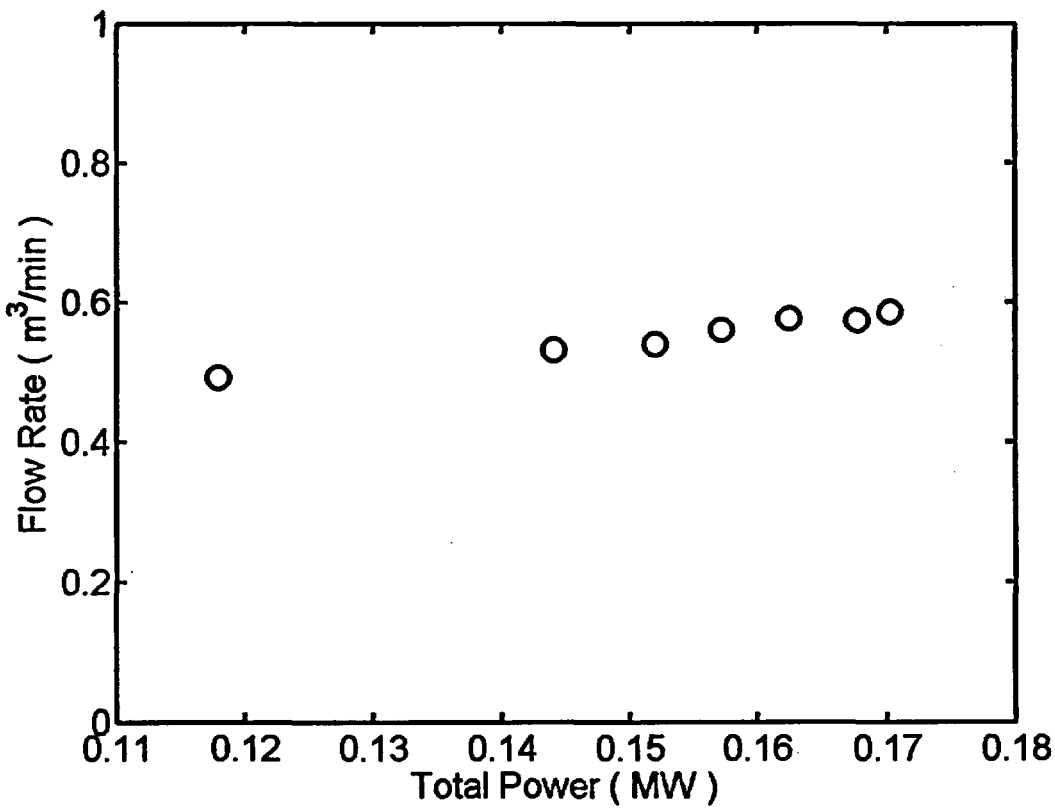

Figure A07.5. Flow rate vs. total input power.

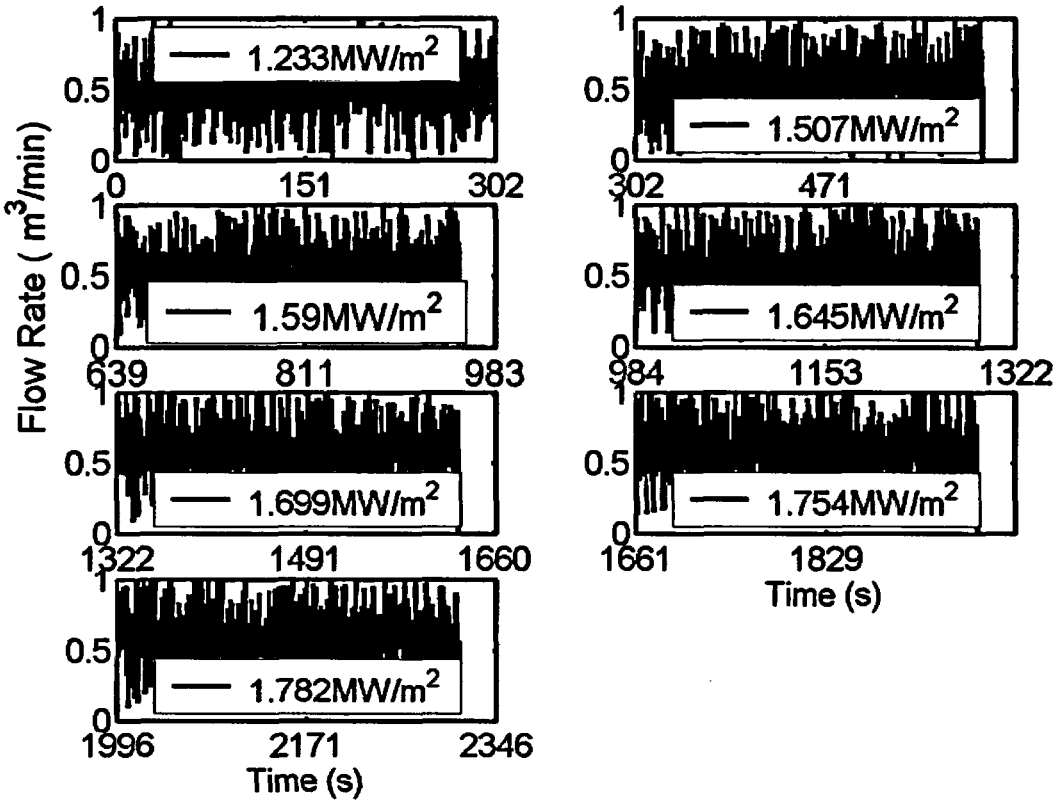

Figure A07.6. Flow rates at different heat fluxes.

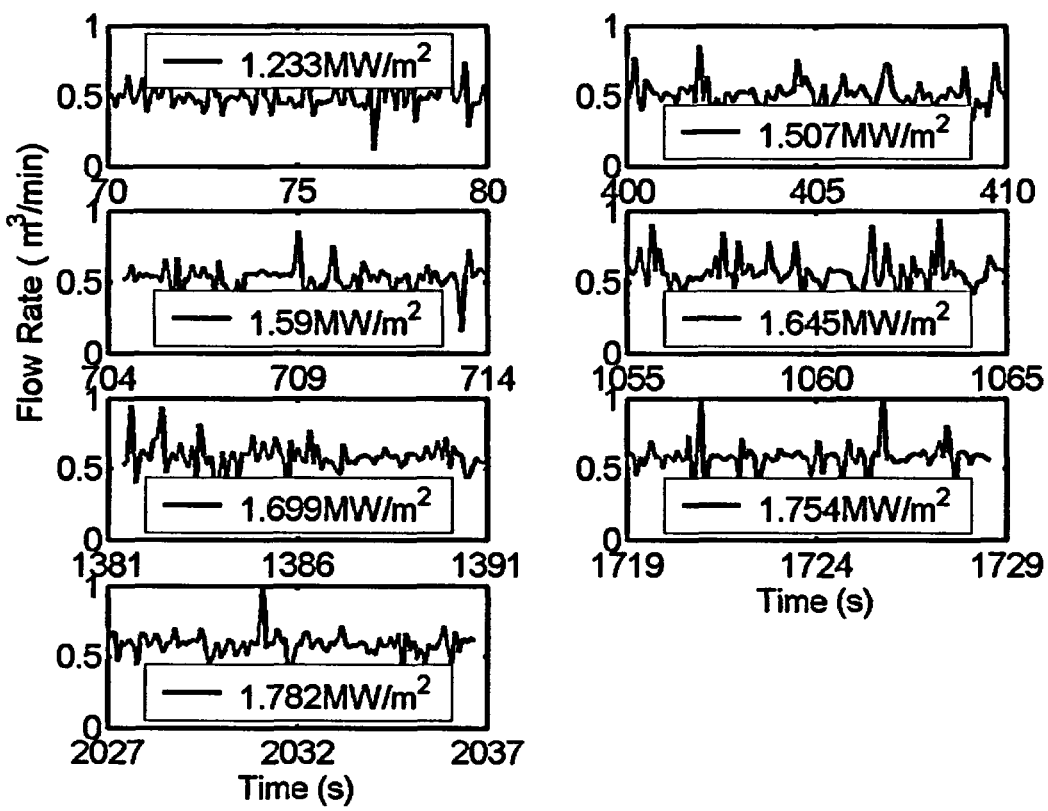

Figure A07.7. Flow rates at different heat fluxes at selected time intervals.

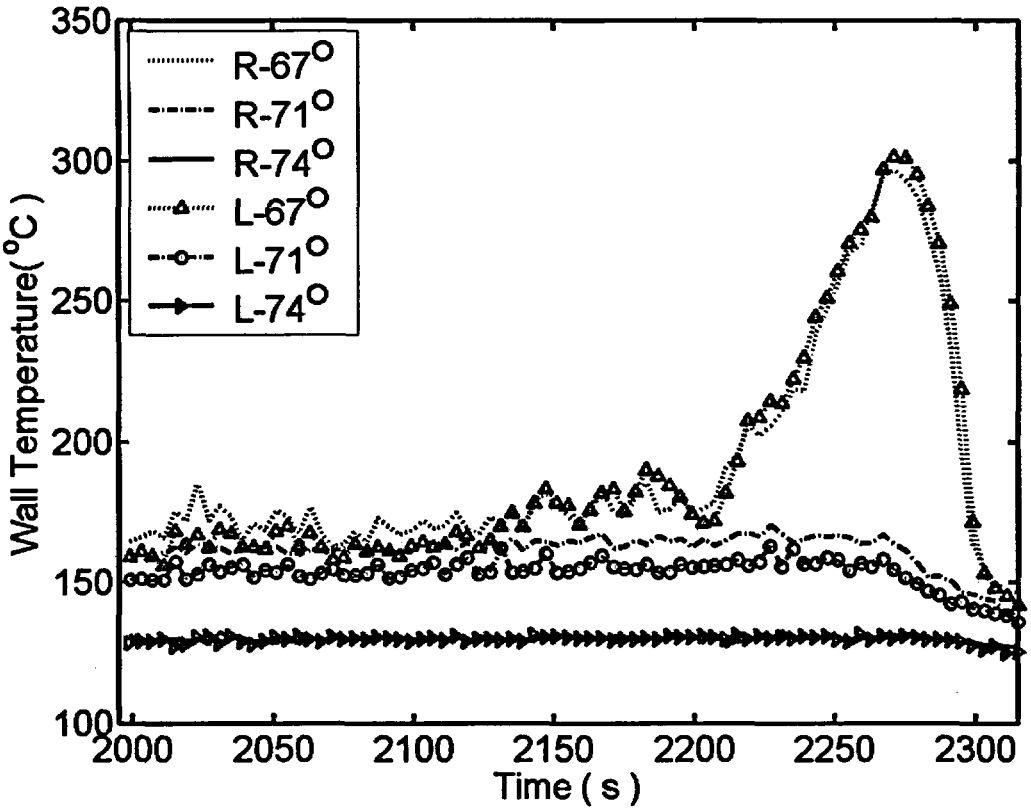

Figure A07.8. Temperature history at CHF.

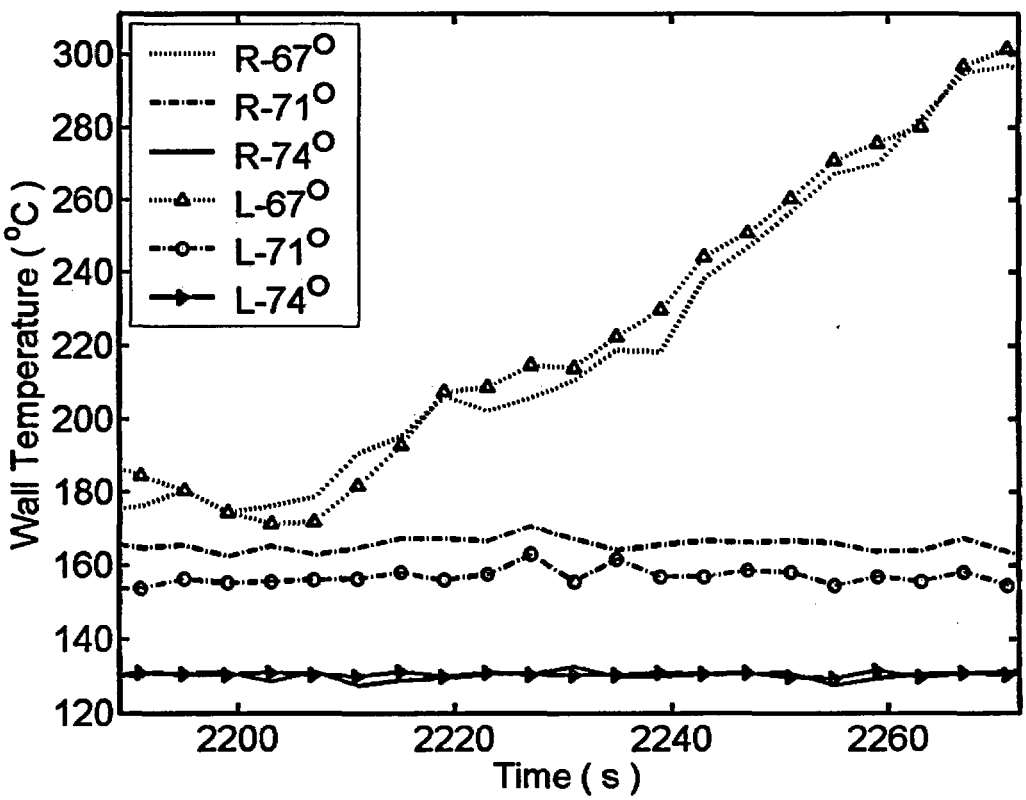

Figure A07.9. Temperature history at CHF in detail.

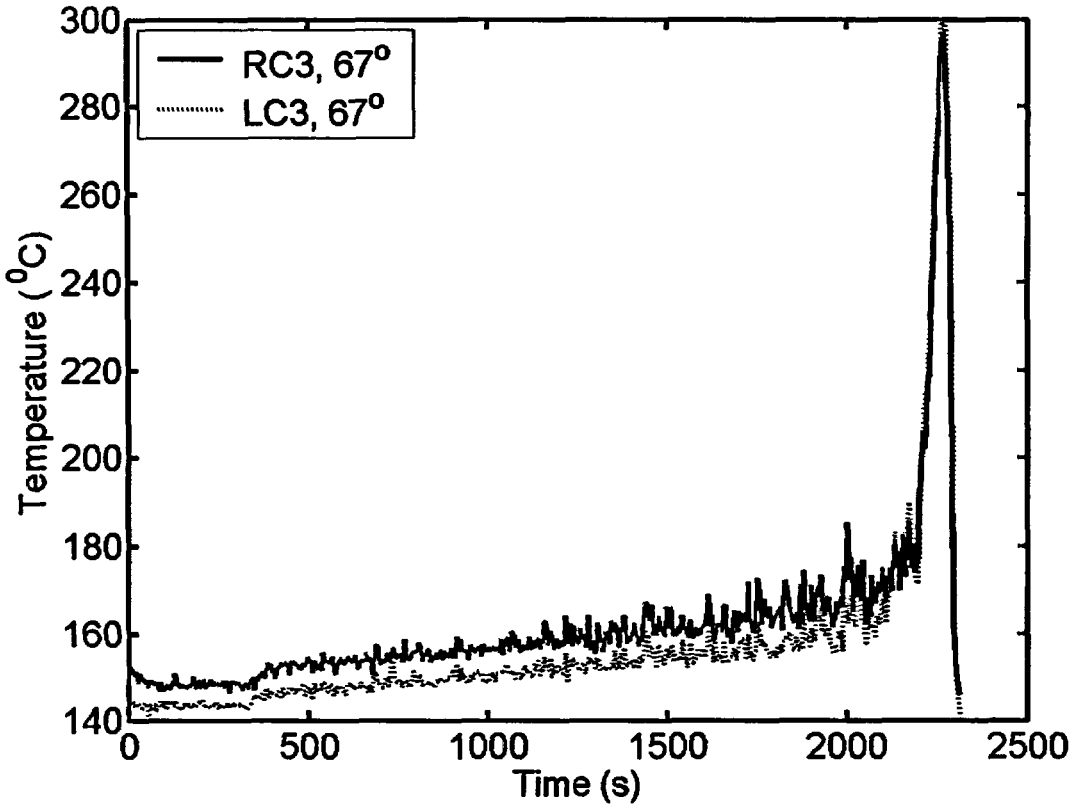

Figure A07.10. Wall temperature history measured by two thermocouples LC3 and RC3.

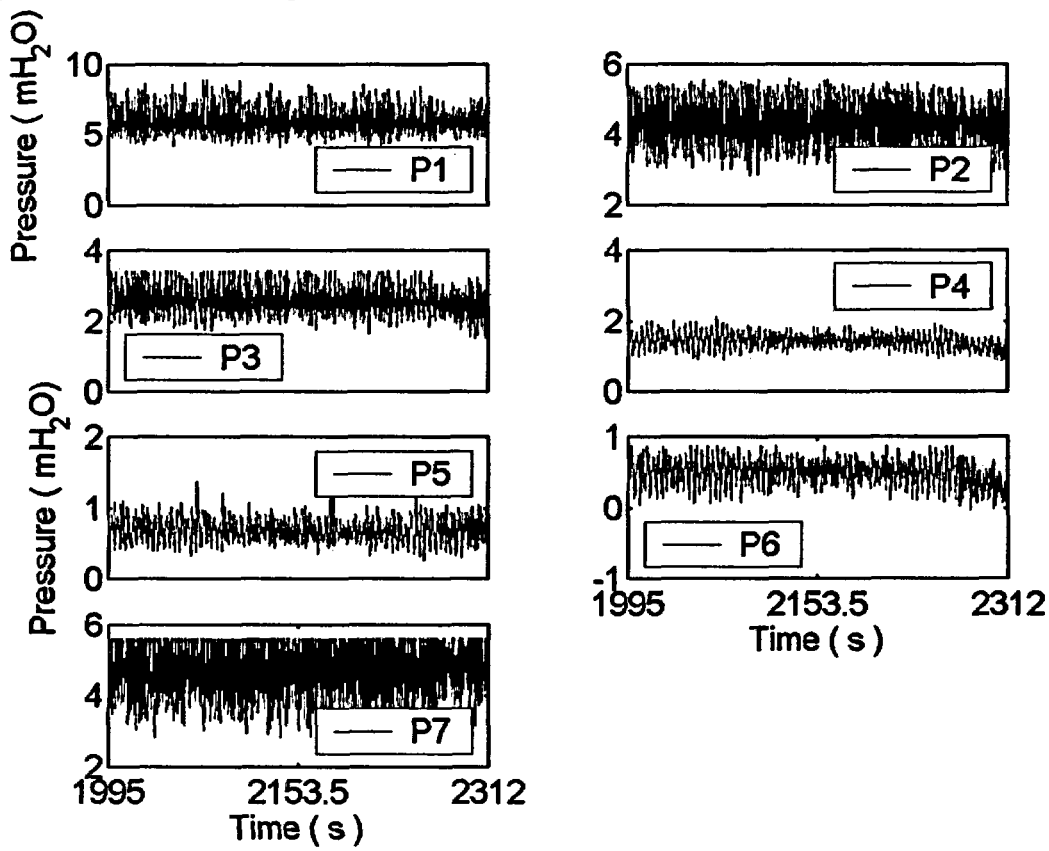

Figure A07.11. Pressure transducer data at q = 1.782 MW/m^2.

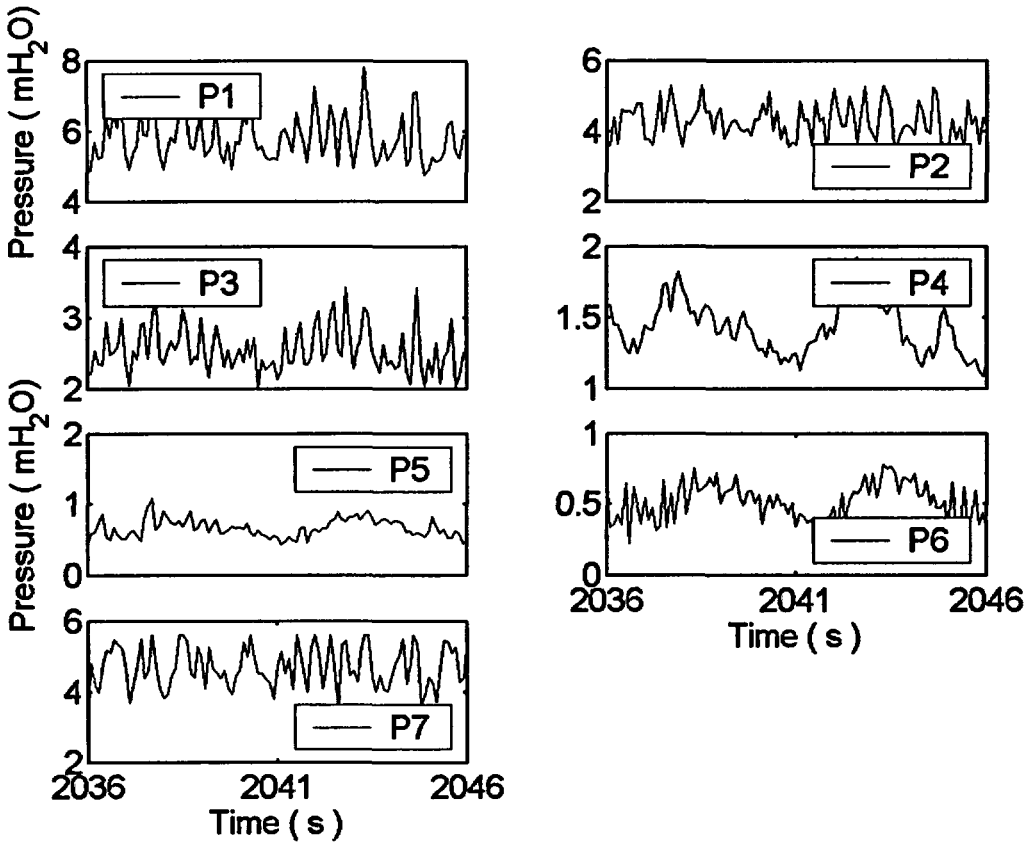

Figure A07.12. Pressure data in detail at q = 1.782 MW/m^2.

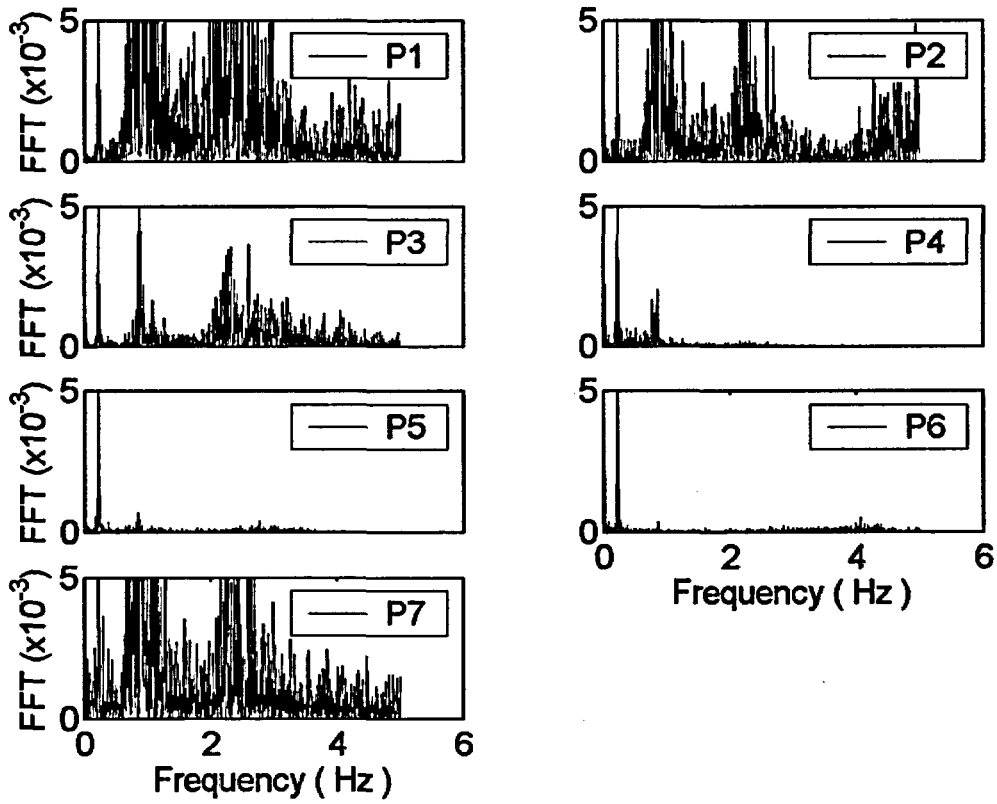

Figure A07.13. FFT of pressure time series at q = 1.782 MW/m^2.

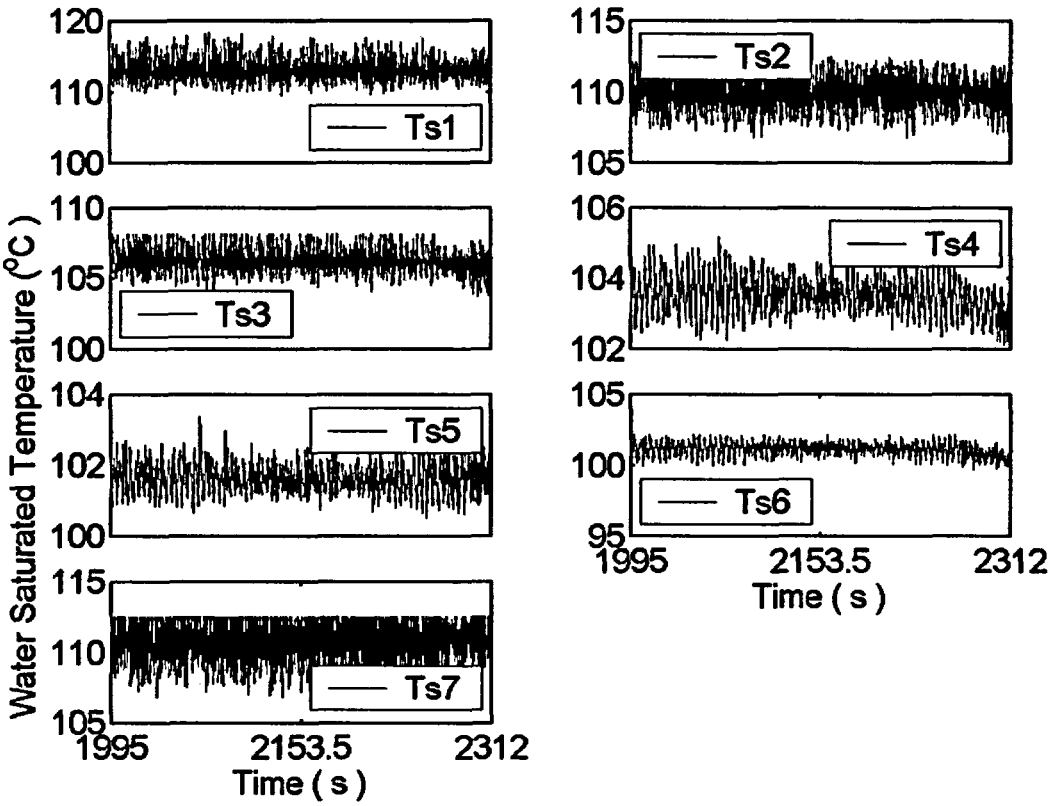

Figure A07.14. Water saturation temperature calculated from local pressure data at q = 1.782 MW/m^2.

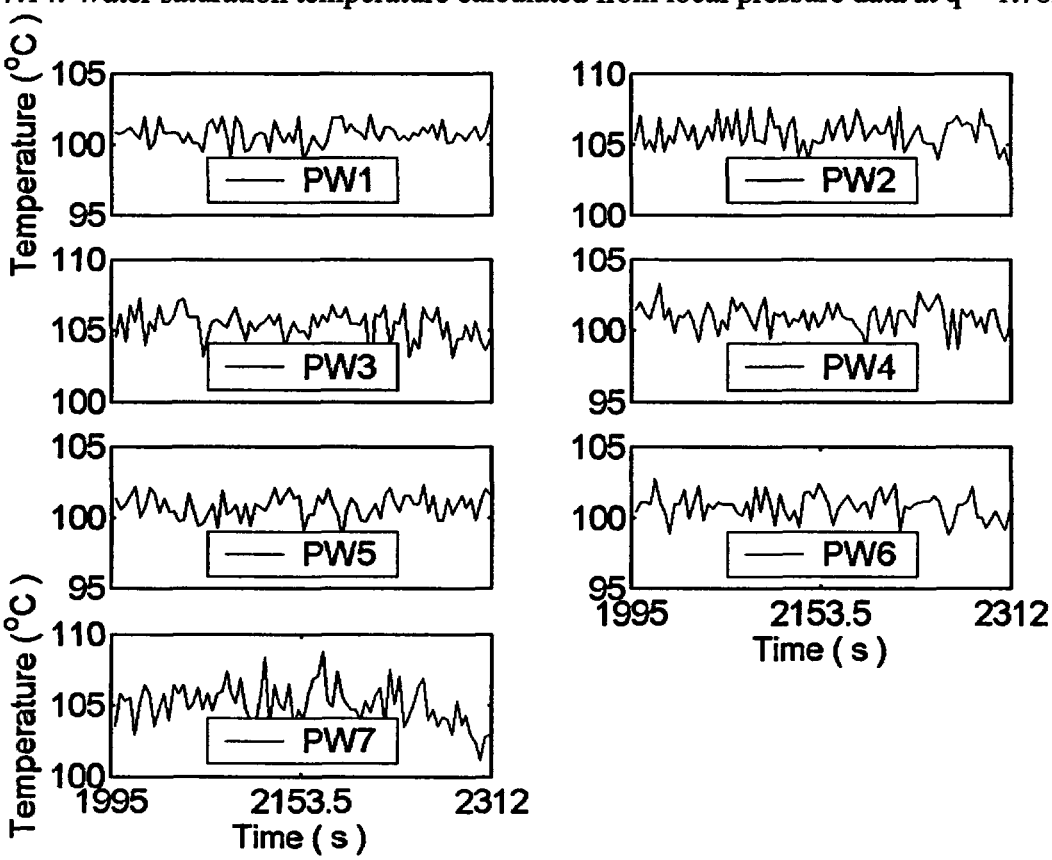

Figure A07.15. Water temperature measured at location of pressure transducer at q = 1.782 MW/m^2.

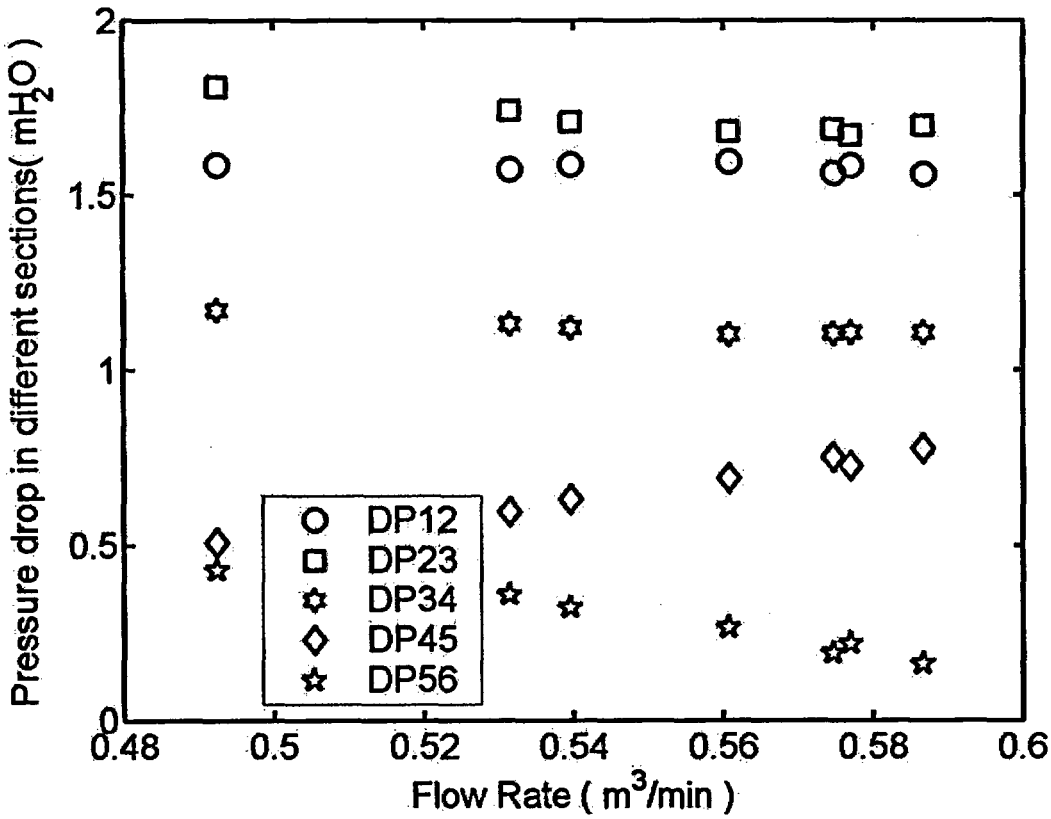

Figure A07.16. Pressure drop vs. flow rate at different heat fluxes.

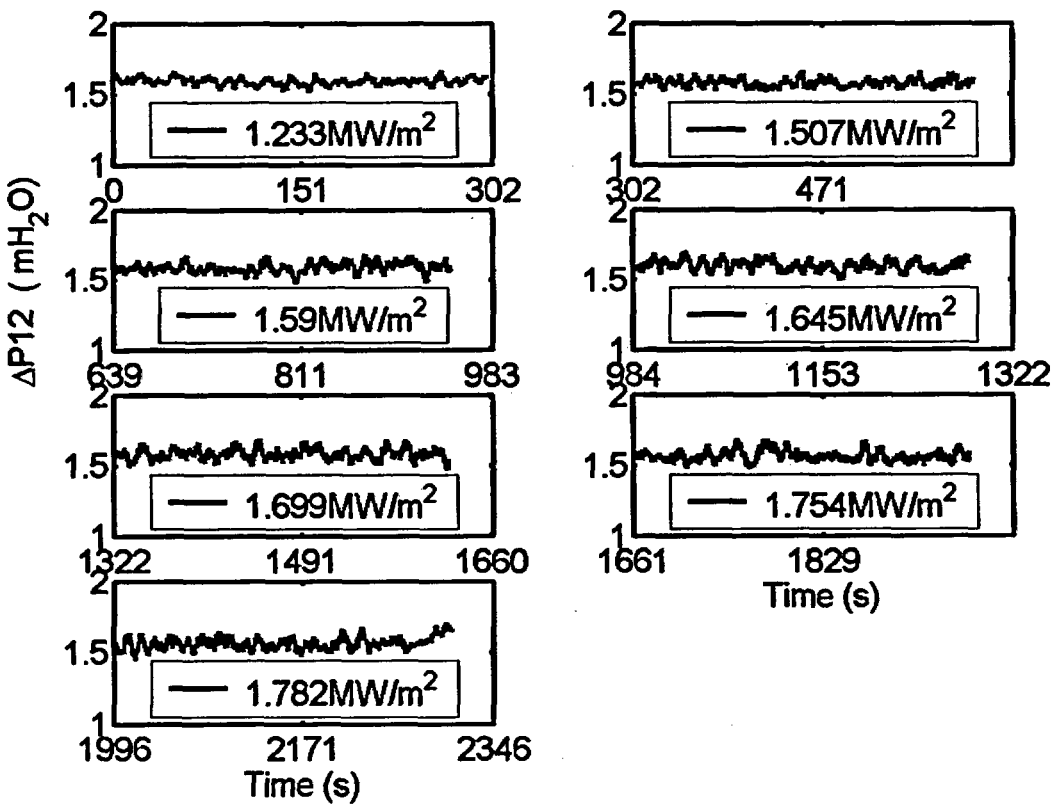

Figure A07.17. Differential Pressure ΔP12 at different heat fluxes.

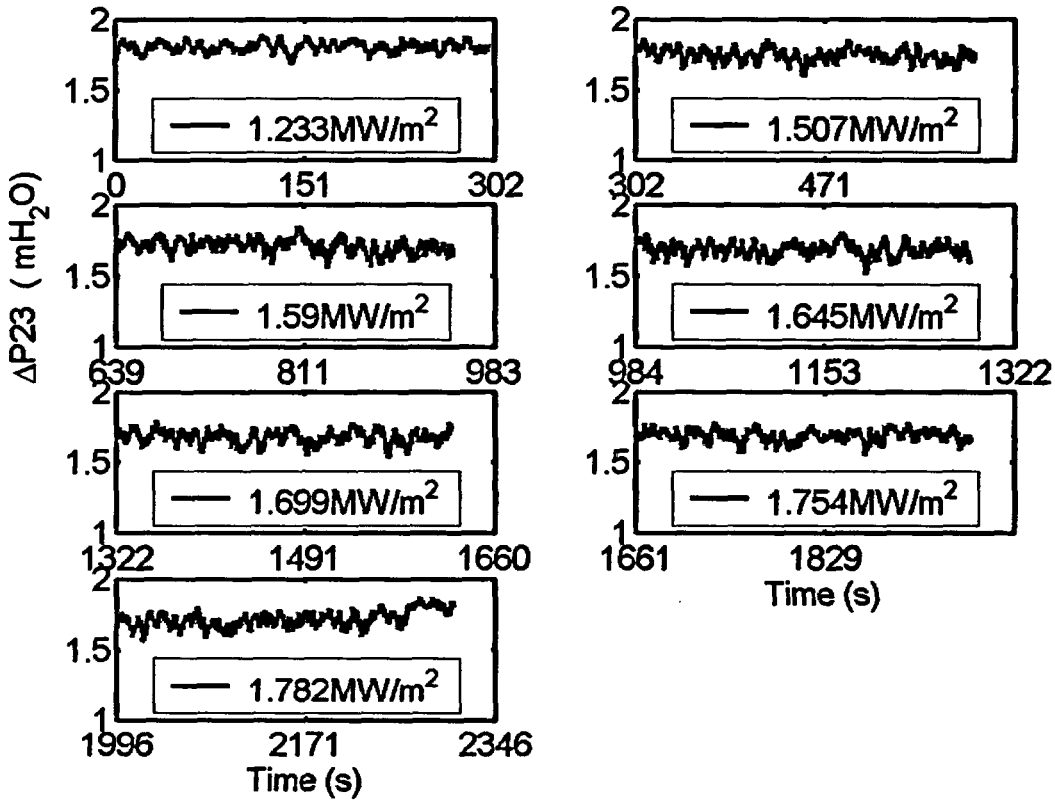

Figure A07.18. Differential Pressure ΔP23 at different heat fluxes.

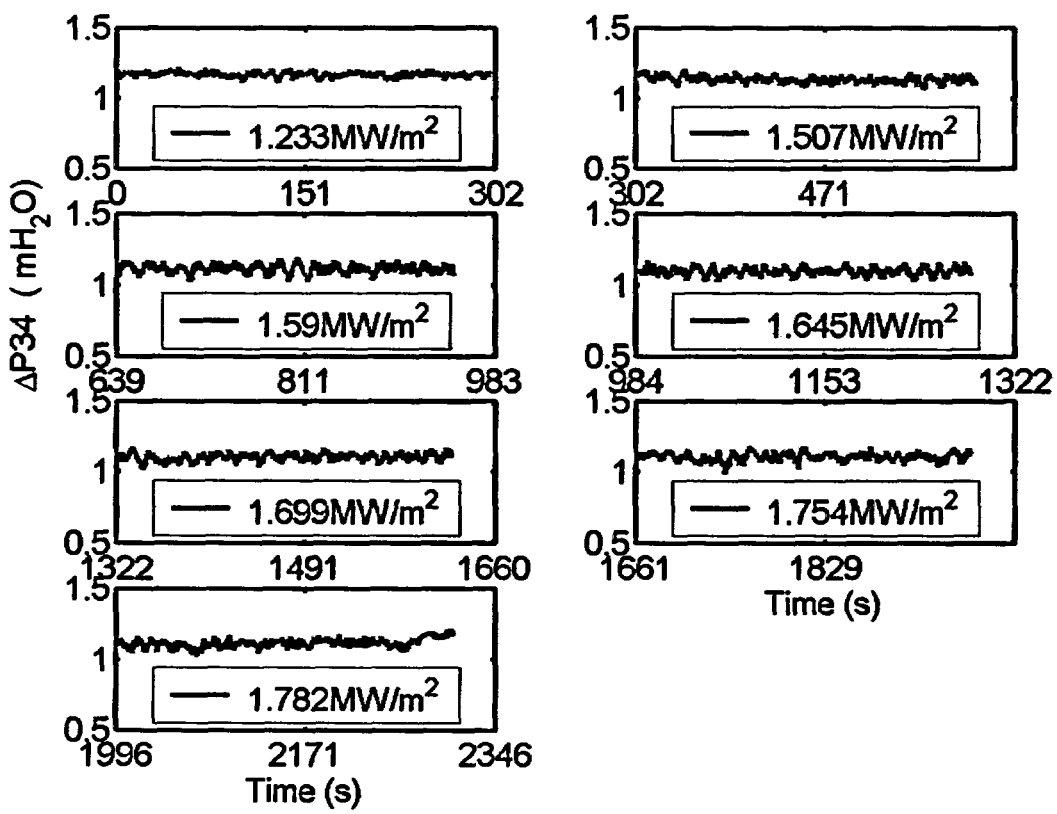

Figure A07.19. Differential Pressure ΔP34 at different heat fluxes.

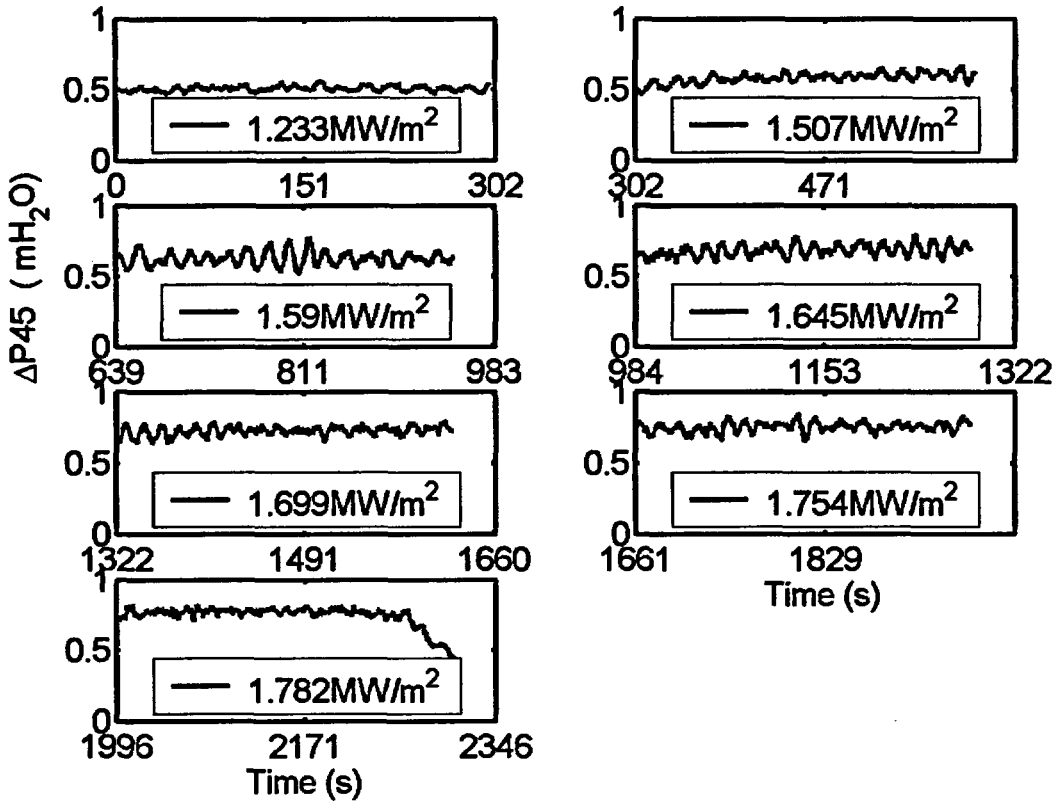

Figure A07.20. Differential Pressure ΔP45 at different heat fluxes.

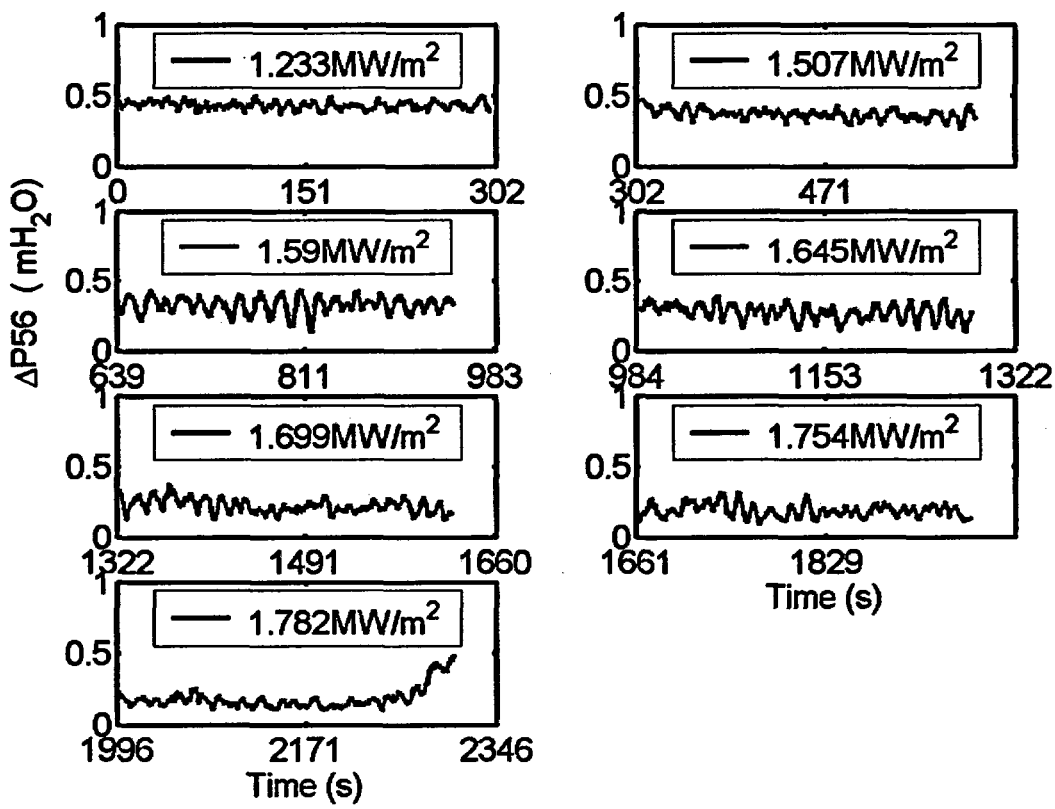

Figure A07.21. Differential Pressure ΔP56 at different heat fluxes.

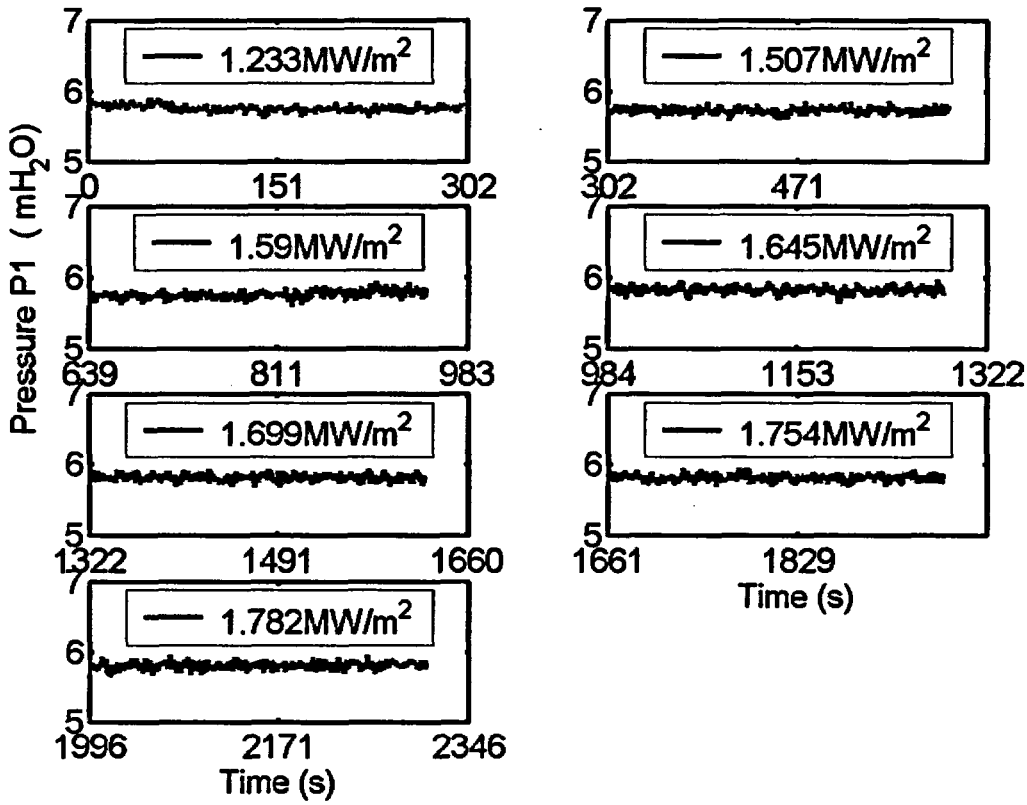

Figure A07.22. Pressure P1 at different heat fluxes.

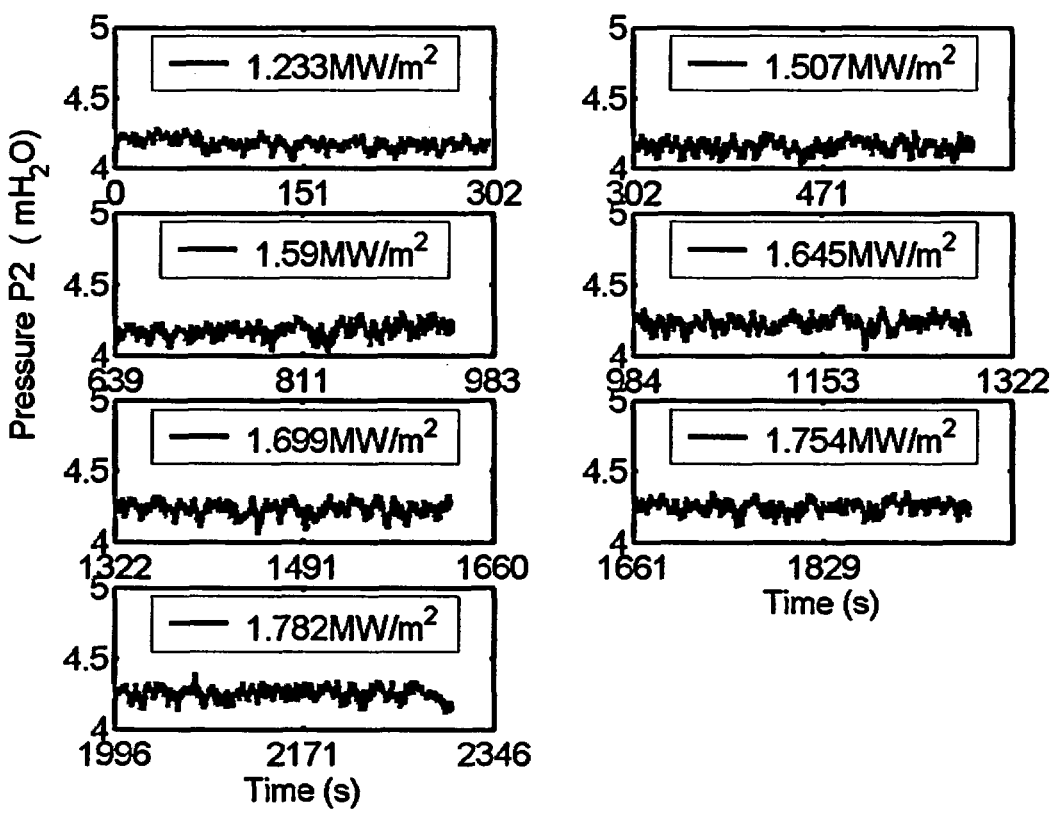

Figure A07.23. Pressure P2 at different heat fluxes.

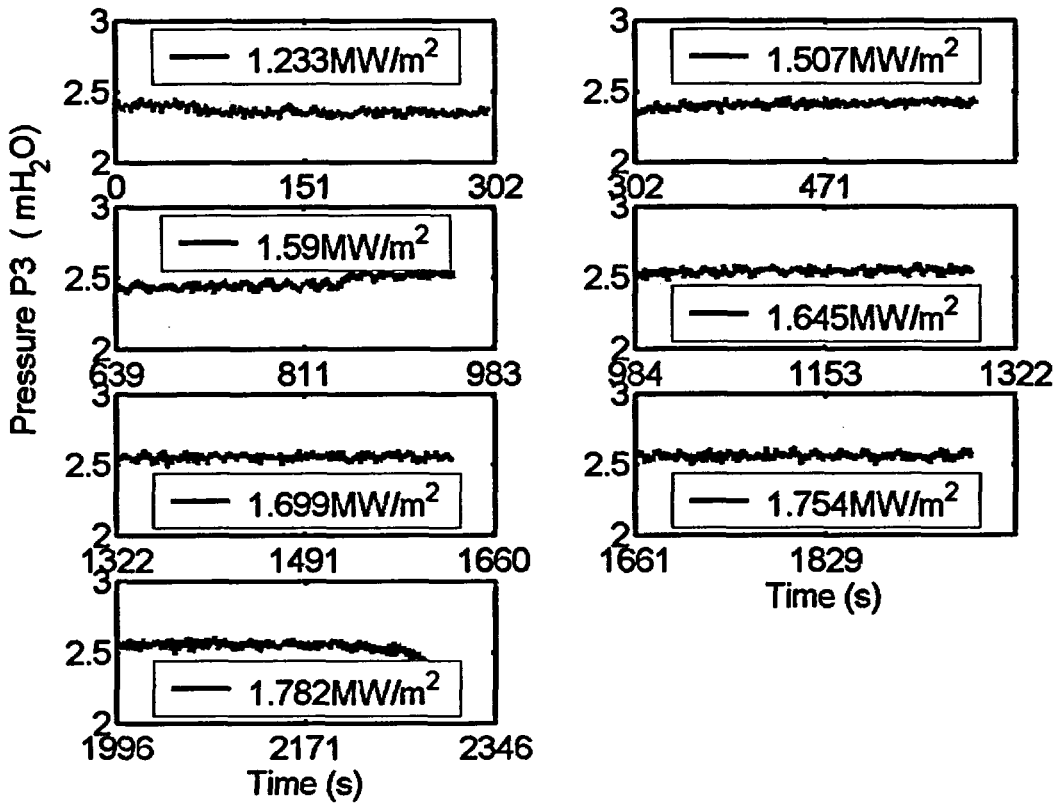

Figure A07.24. Pressure P3 at different heat fluxes.

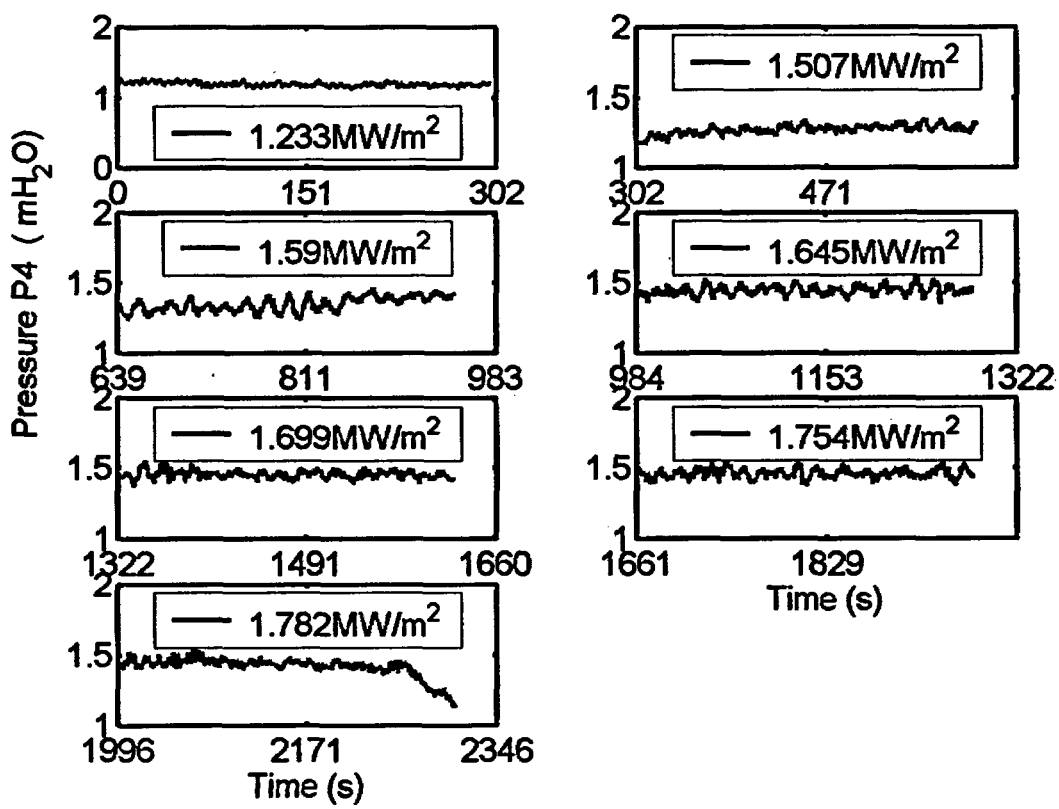

Figure A07.25. Pressure P4 at different heat fluxes.

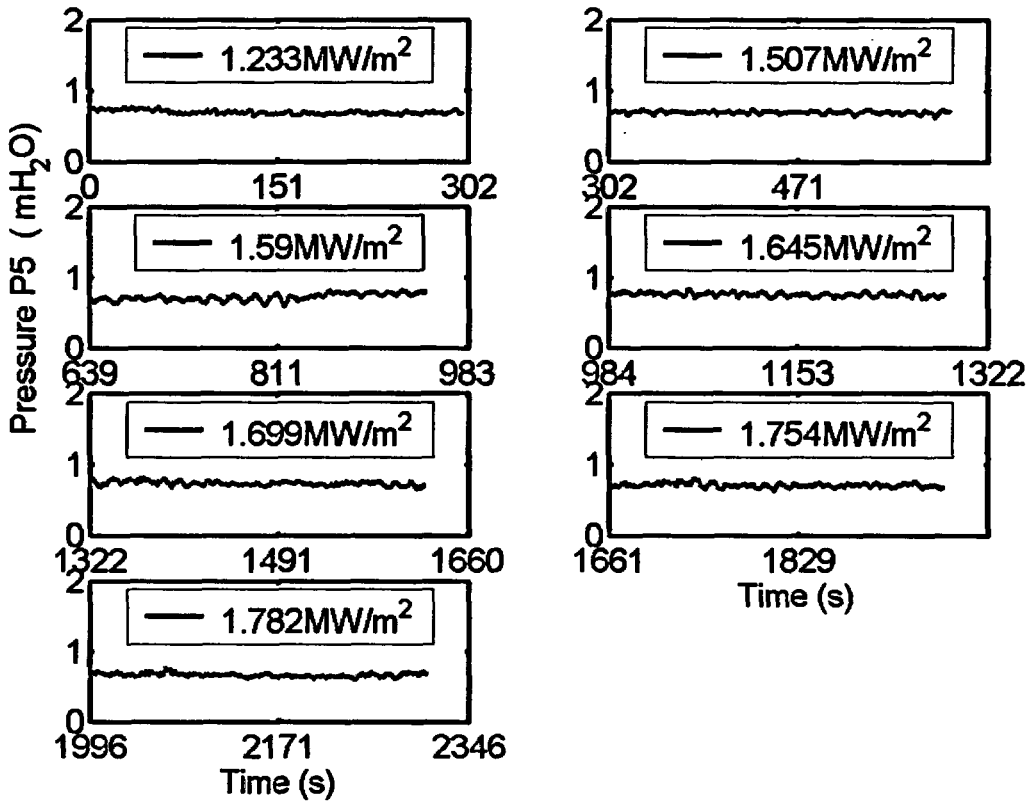

Figure A07.26. Pressure P5 at different heat fluxes.

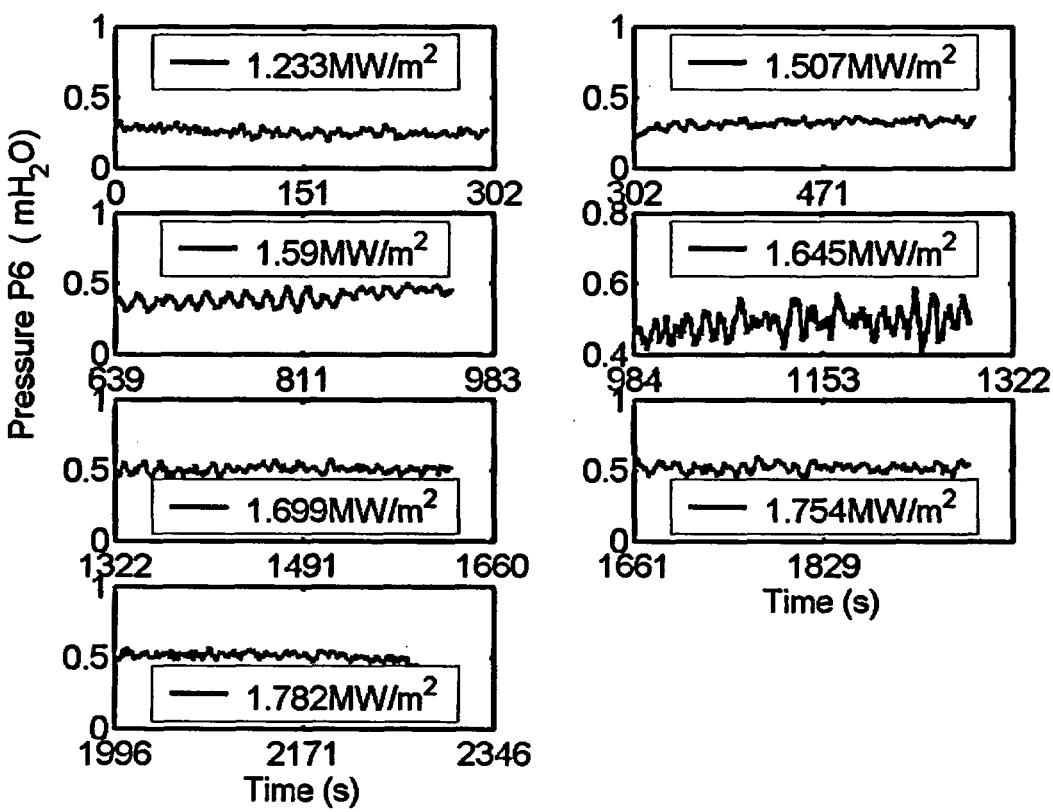

Figure A07.27. Pressure P6 at different heat fluxes.

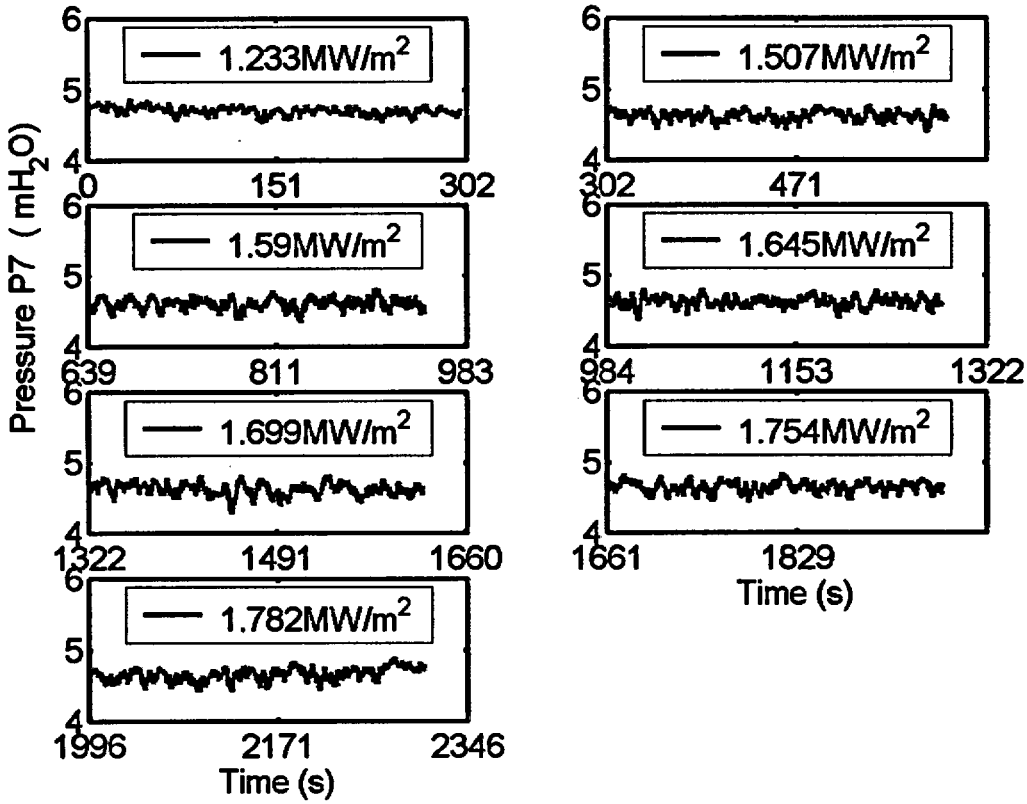

Figure A07.28. Pressure P7 at different heat fluxes.

ID #8

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6	T48A	1727	RC8	83	A	11/09/2002/13:00

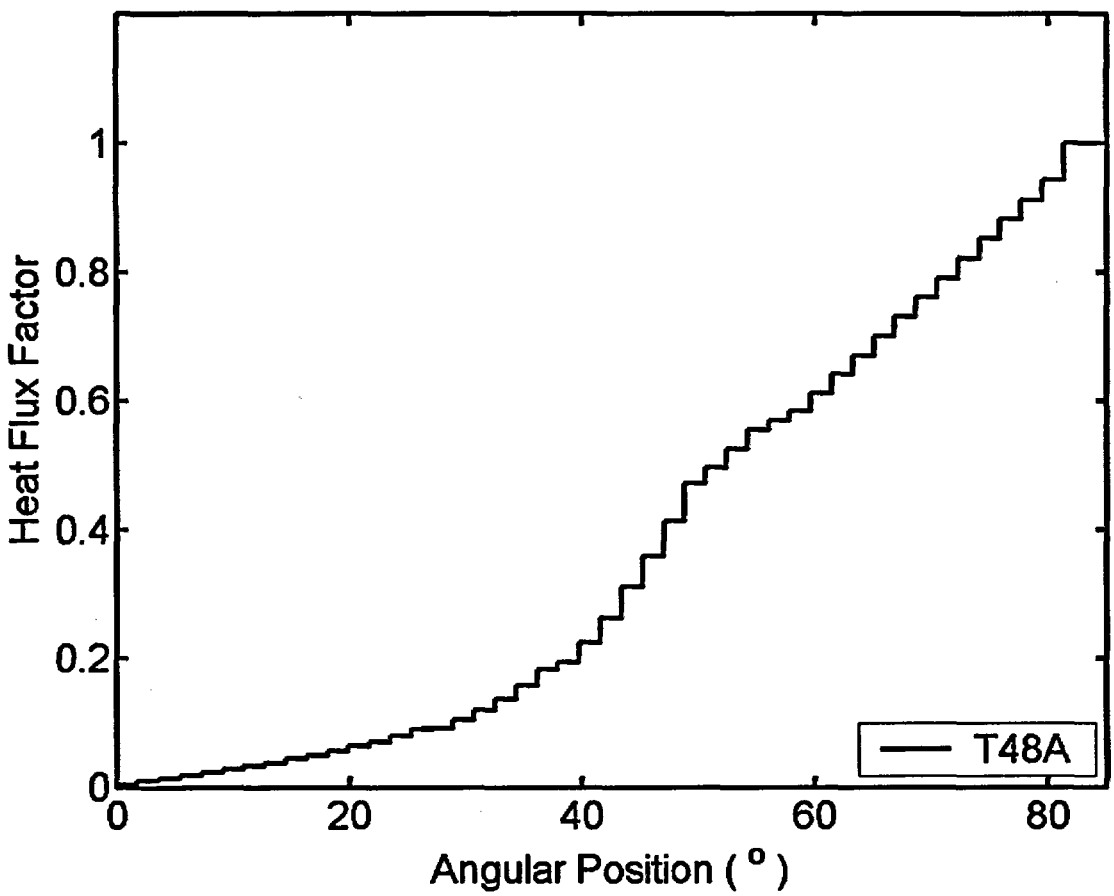

Figure A08.1. Power shape.

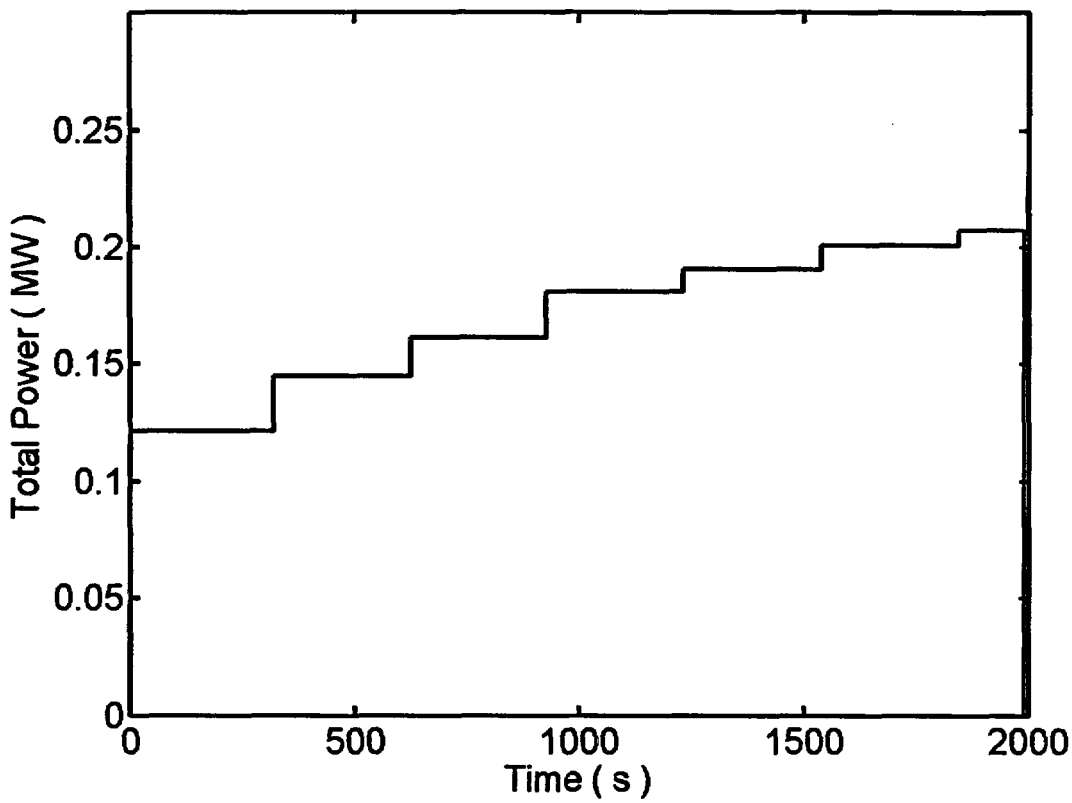

Figure A08.2. Total input power history.

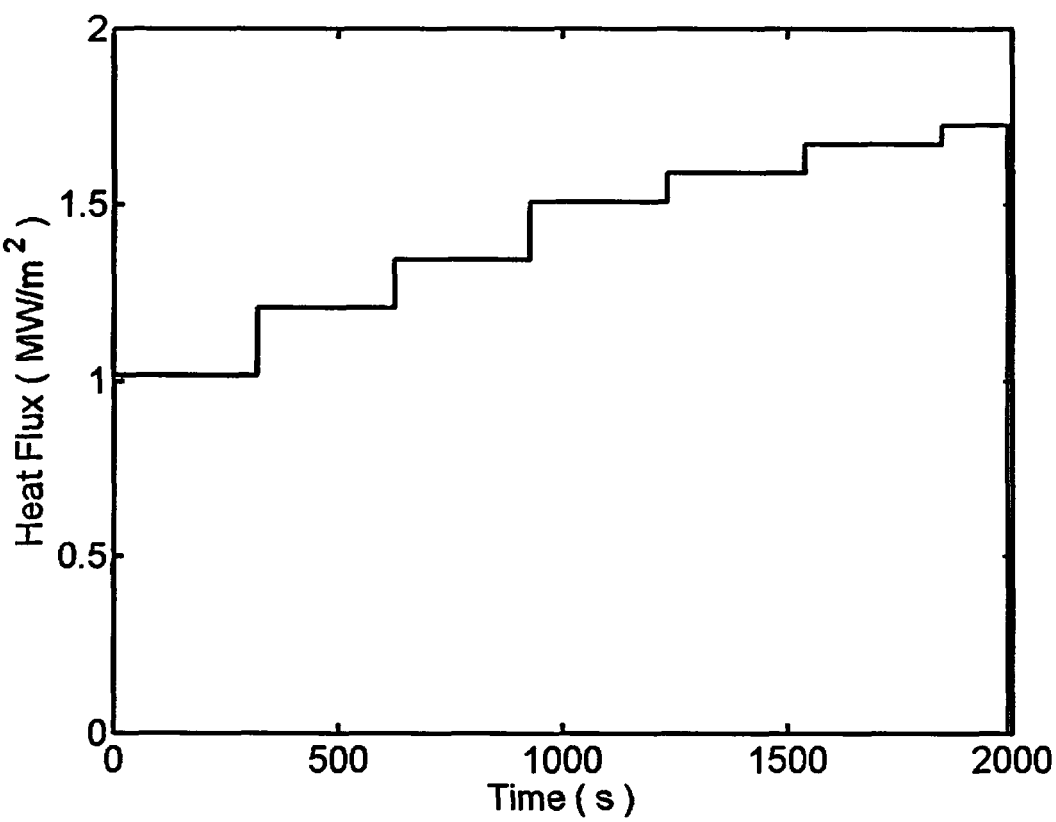

Figure A08.3. Heat flux history.

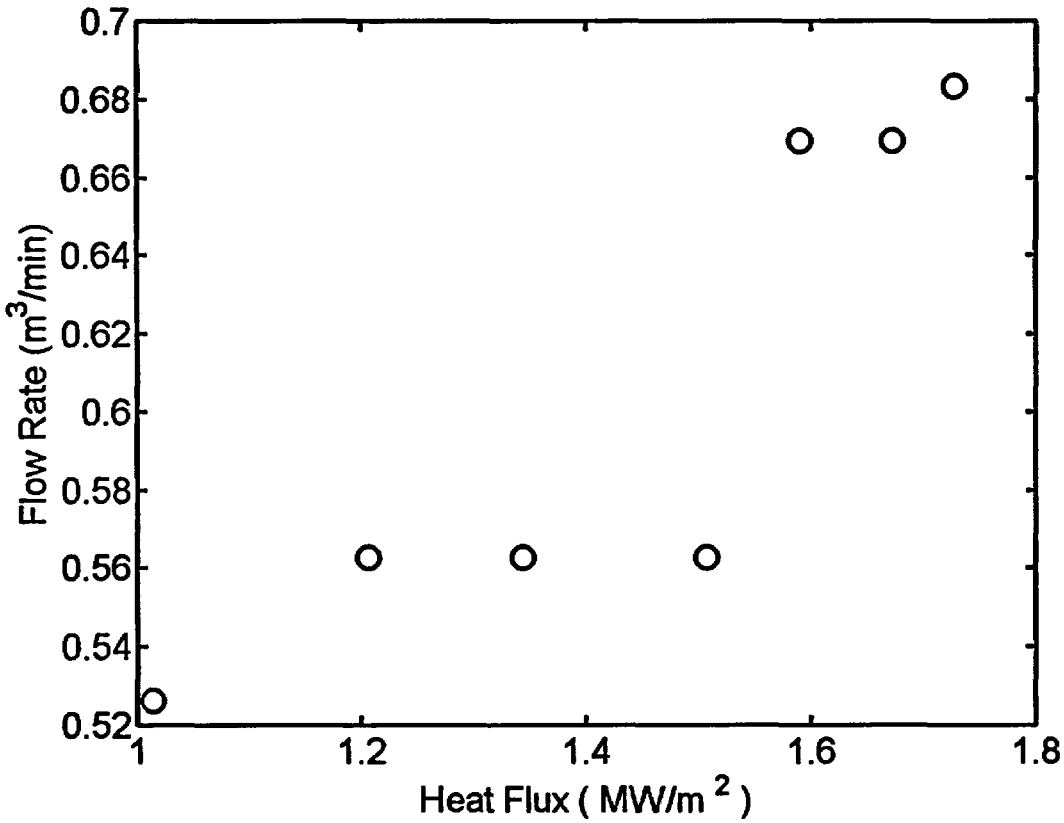

Figure A08.4. Flow rate vs. heat fluxes.

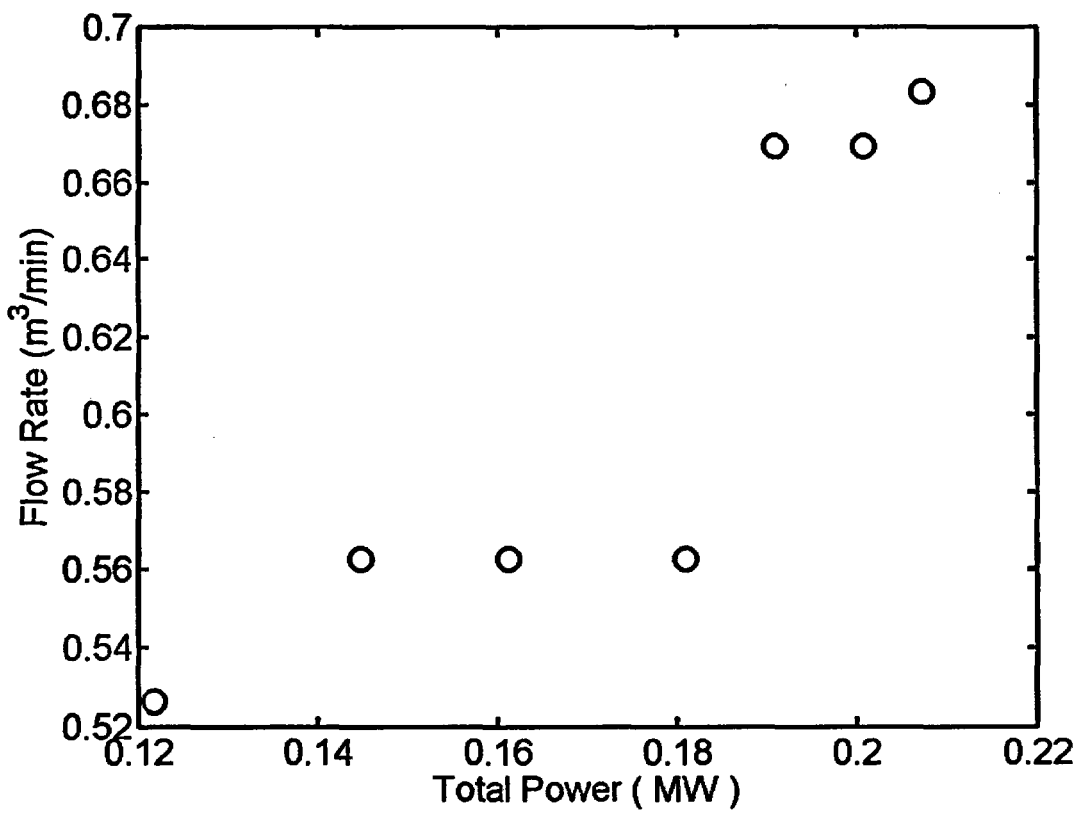

Figure A08.5. Flow rate vs. total input power.

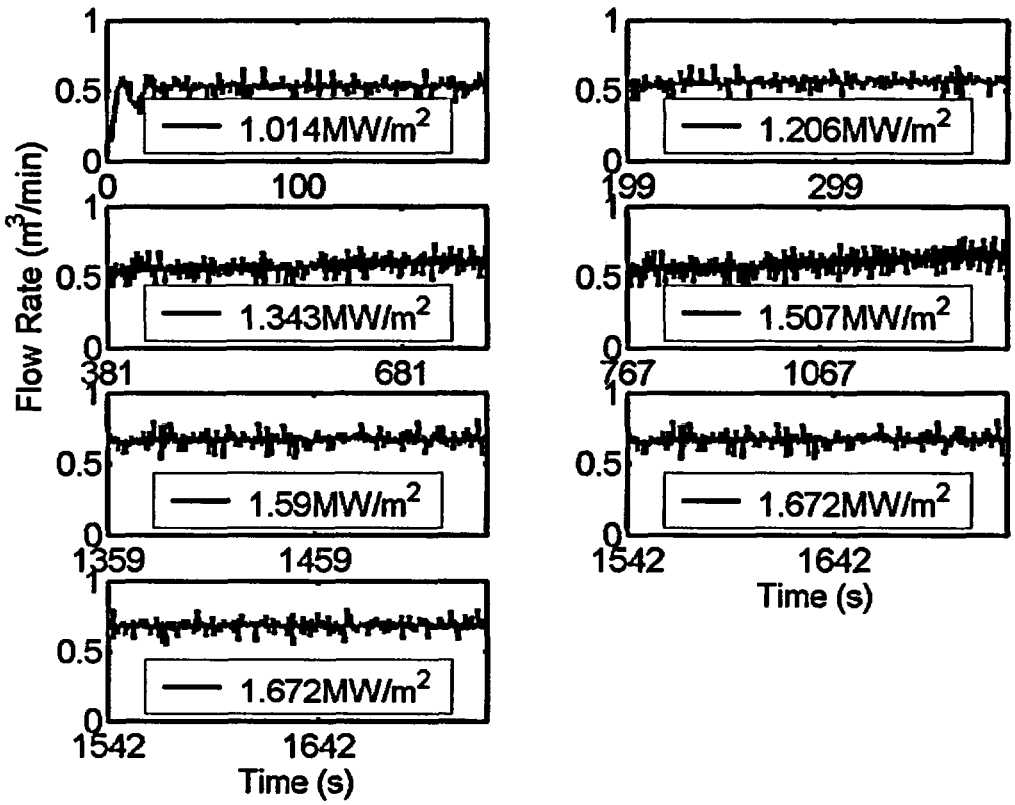

Figure A08.6. Flow rates at different heat fluxes

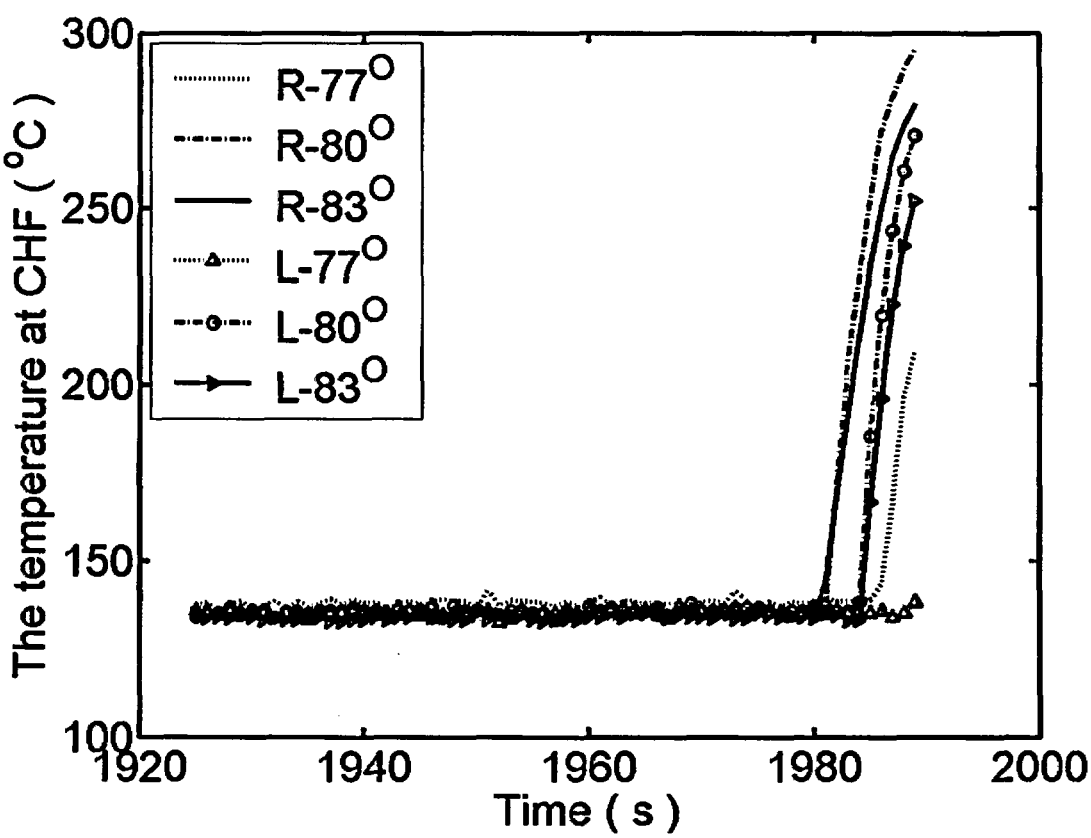

Figure A08.7. Temperature history at CHF.

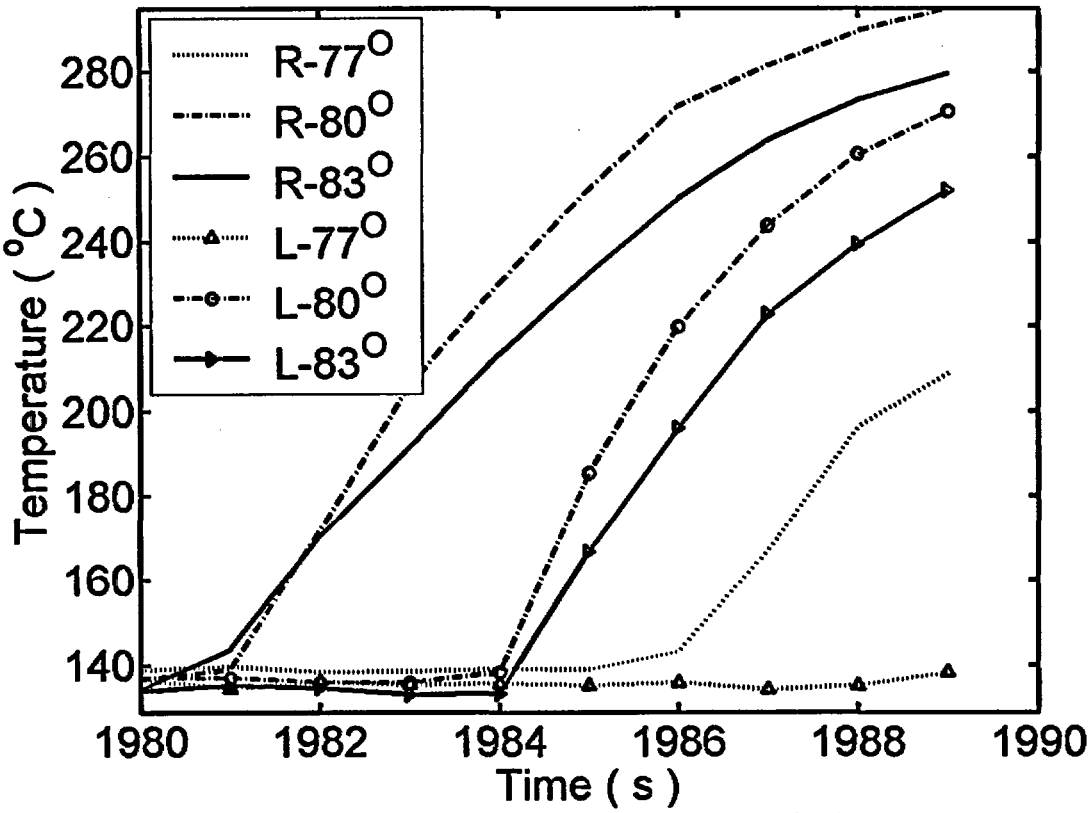

Figure A08.8. Temperature history at CHF in detail.

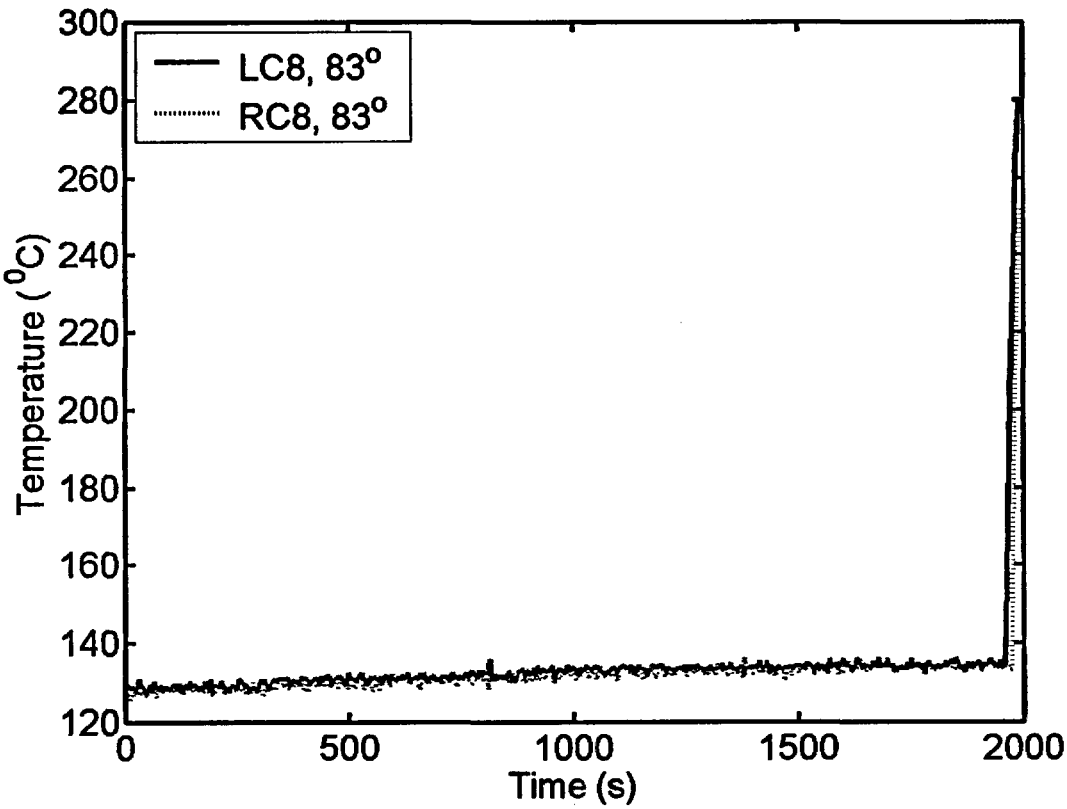

Figure A08.9. Wall temperature history measured by two thermocouples LC4 and RC4.

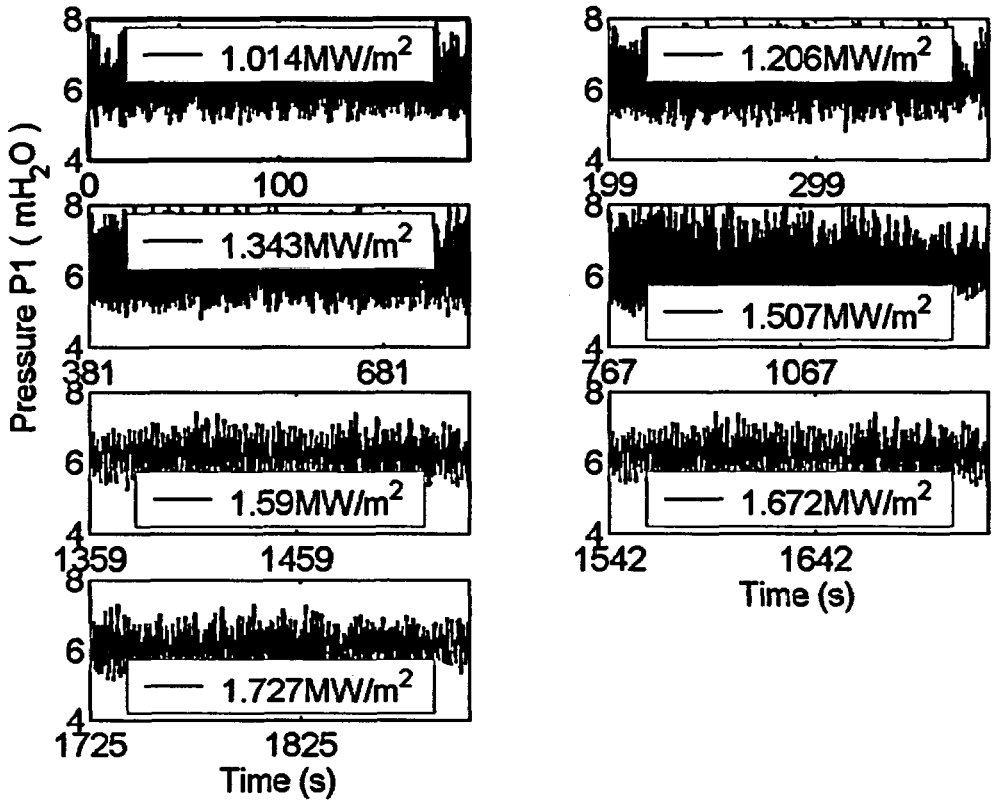

Figure A08.10. Pressure P1 at different heat fluxes.

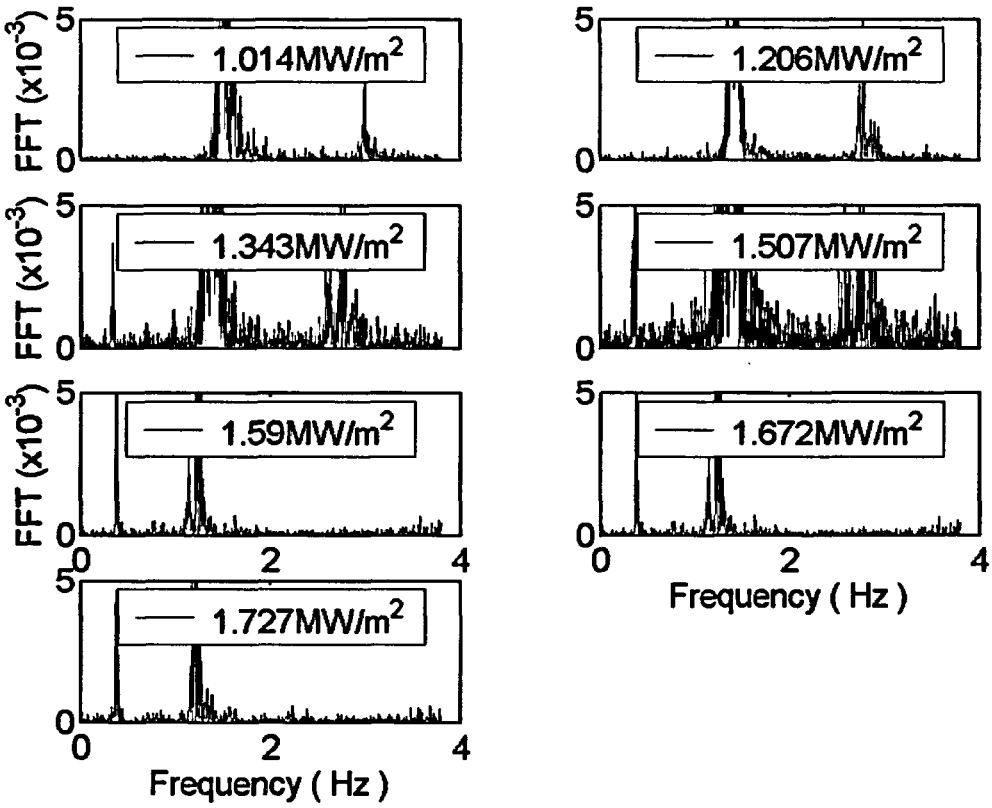

Figure A08.11. FFT of pressure P1 time series.

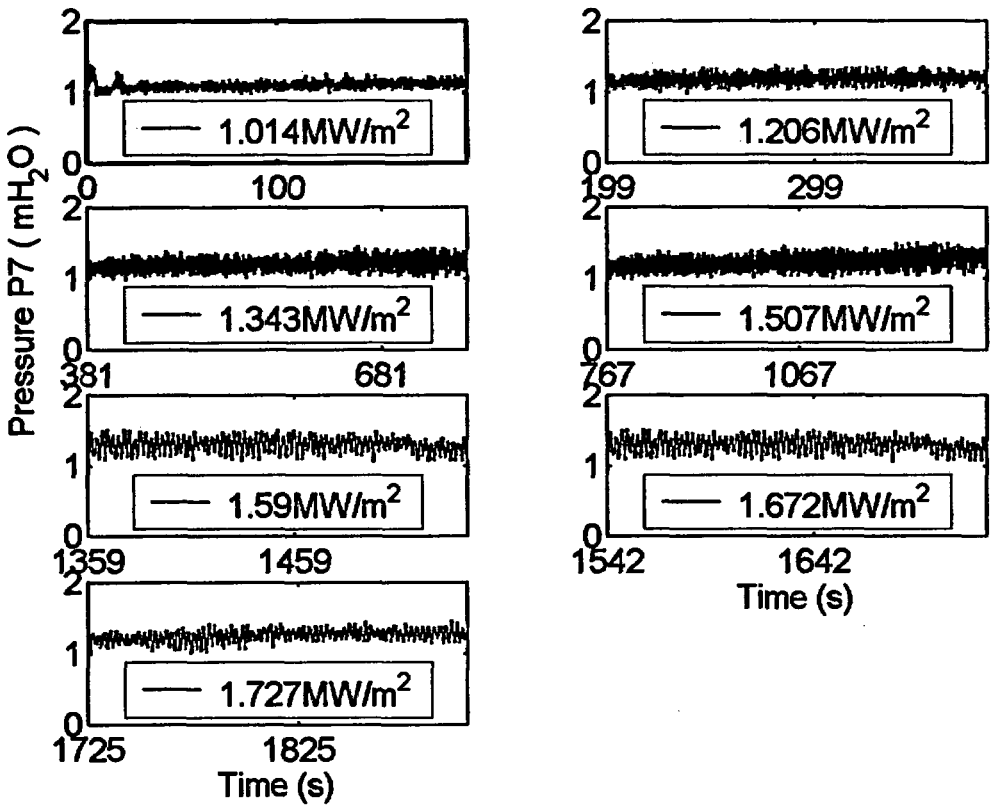

Figure A08.12. Pressure P7 at different heat fluxes.

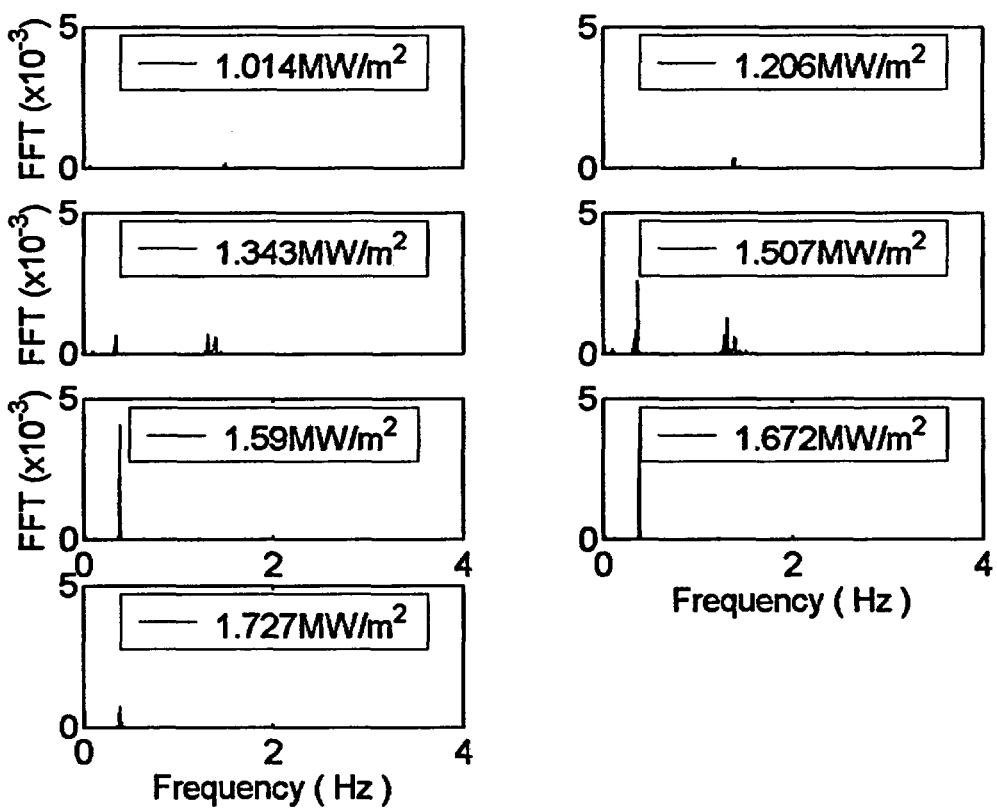

Figure A08.13. FFT of pressure P7 time series.

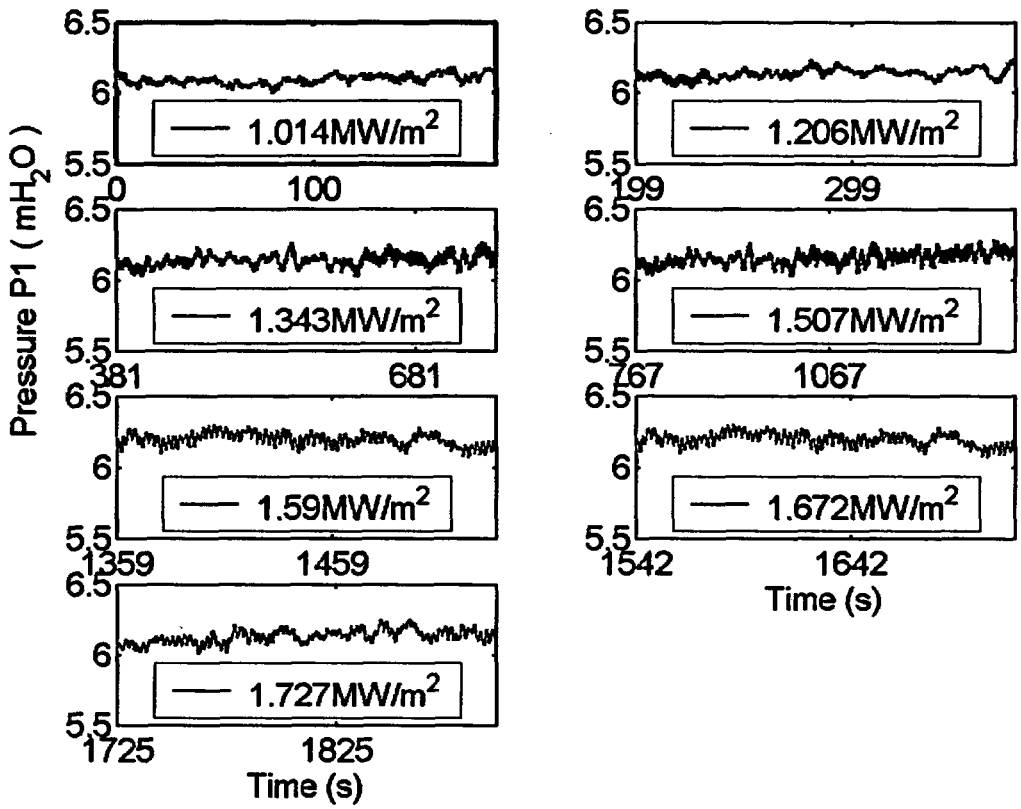

Figure A03.14. Pressure P1 after 50 point slide average.

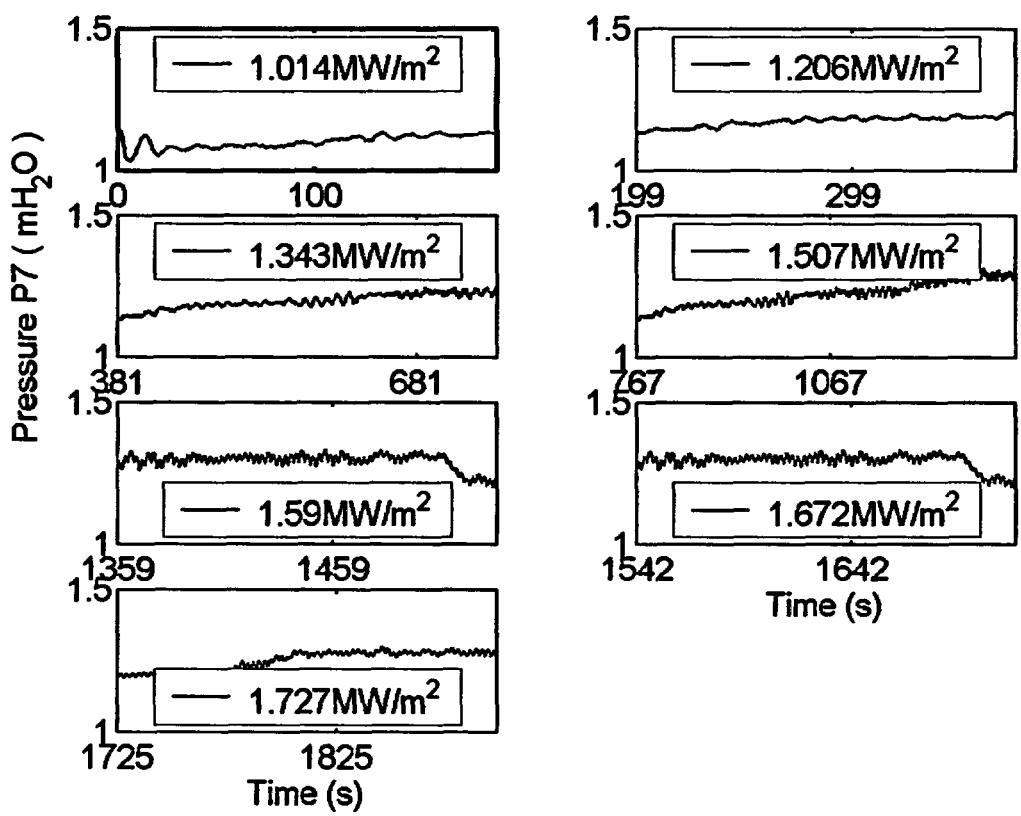

Figure A03.15. Pressure P7 after 50 point slide average.

ID #9

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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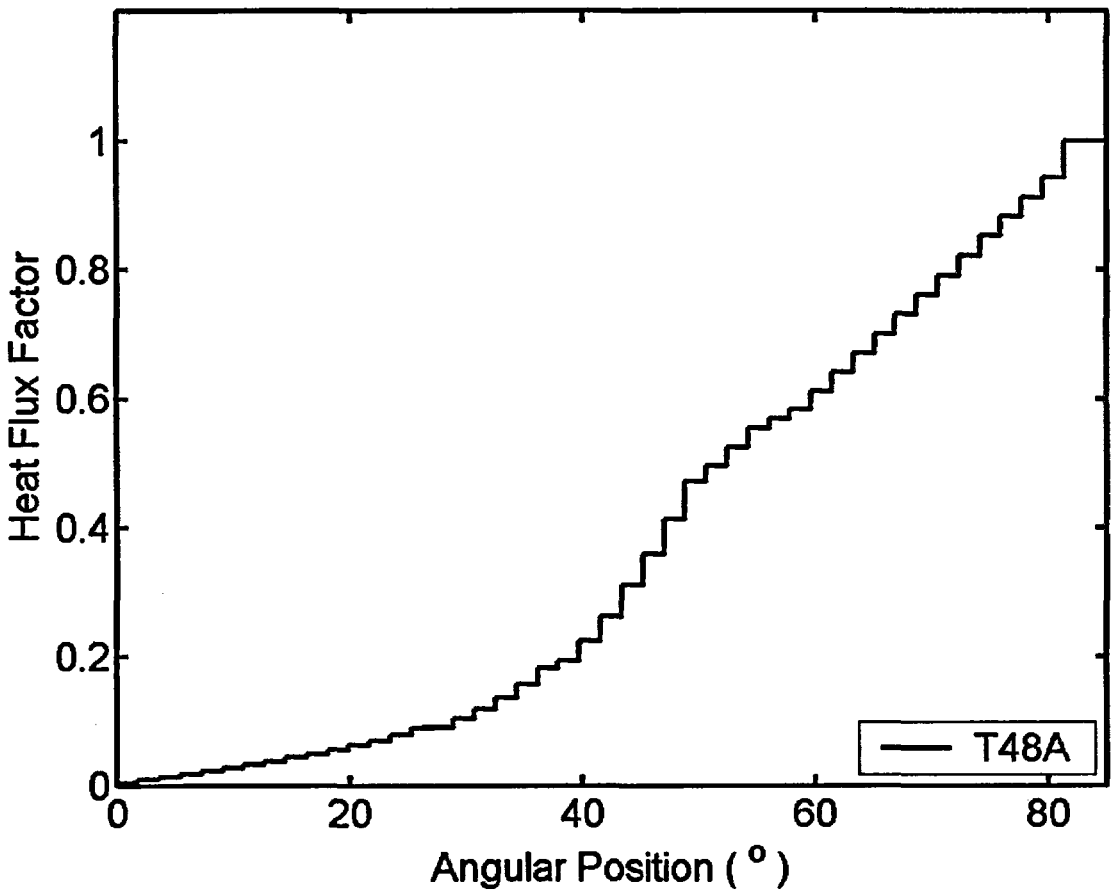

Figure A09.1. Power shape.

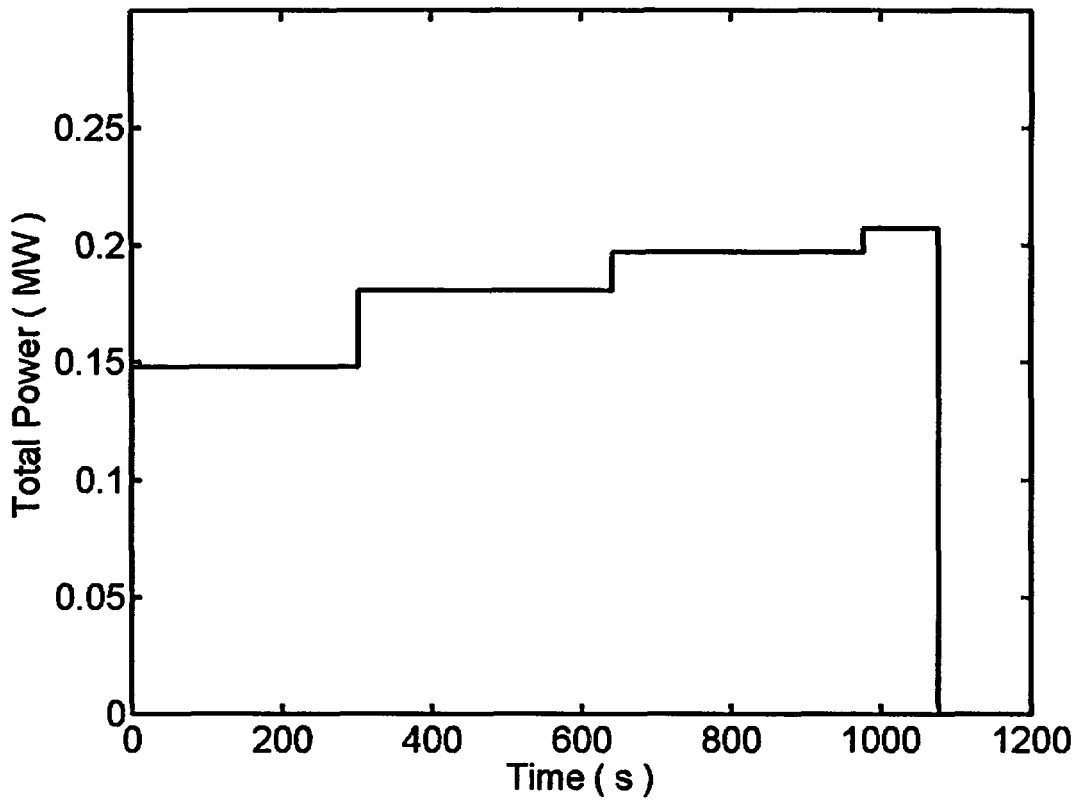

Figure A09.2. Total input power history.

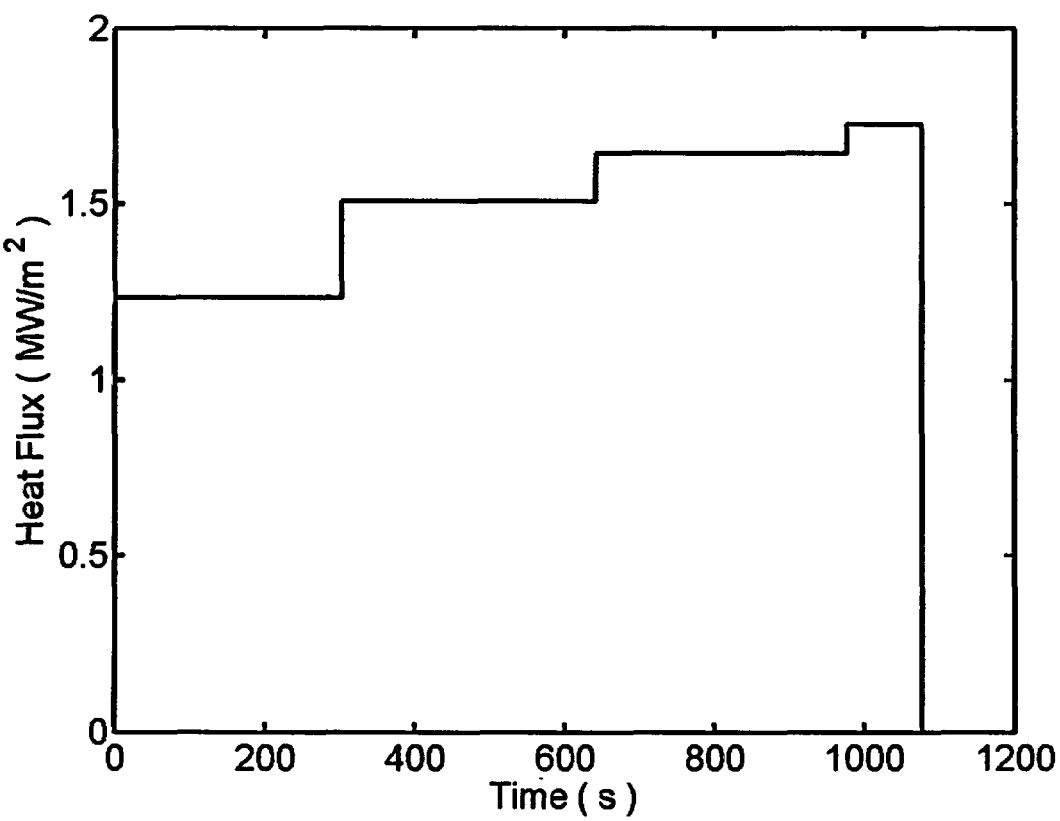

Figure A09.3. Heat flux history.

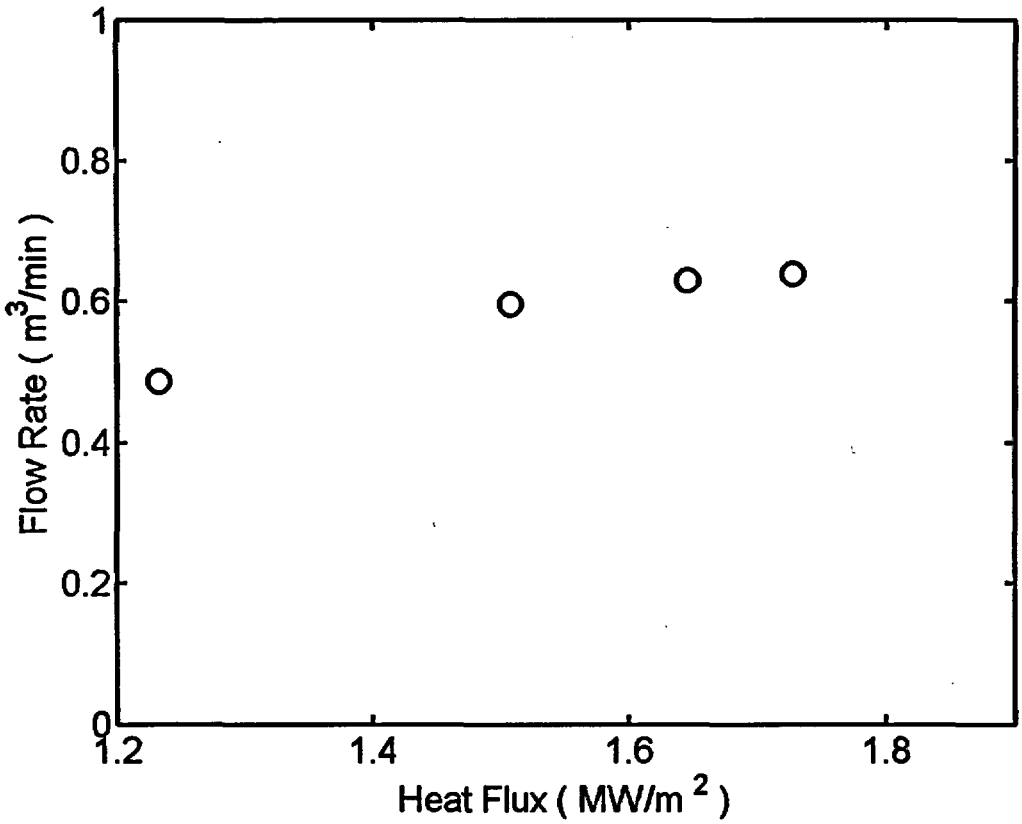

Figure A09.4. Flow rate vs. heat fluxes.

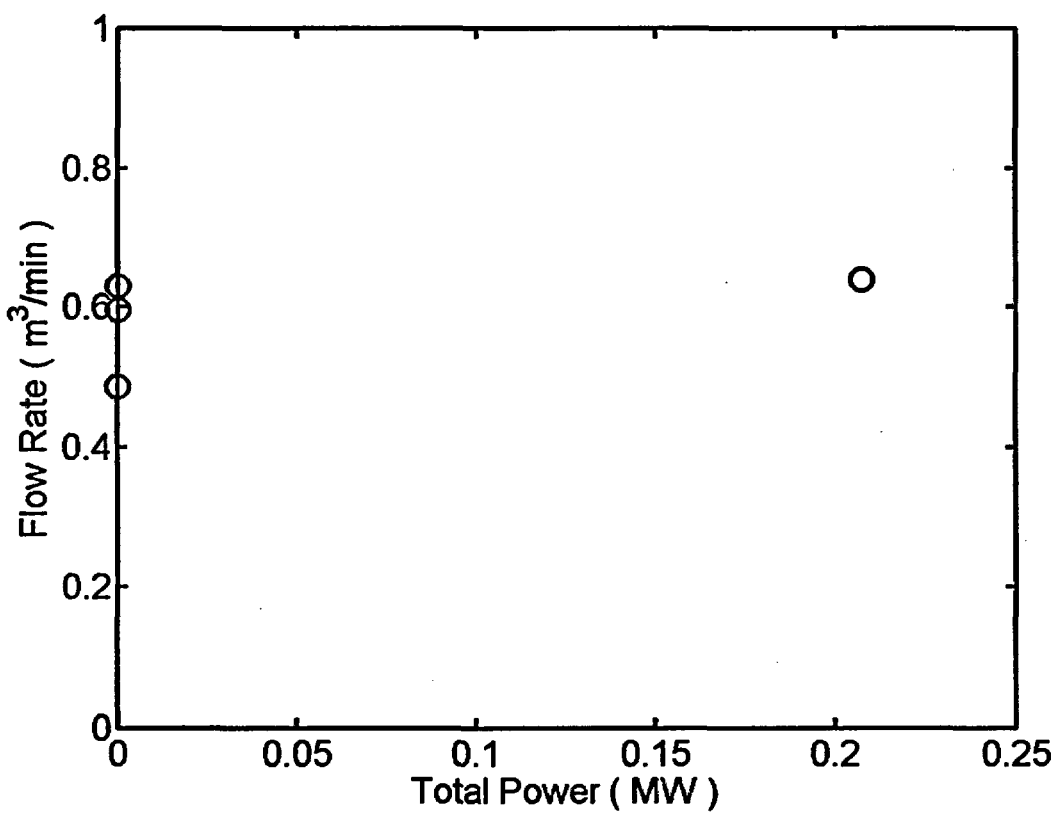

Figure A09.5. Flow rate vs. total input power.

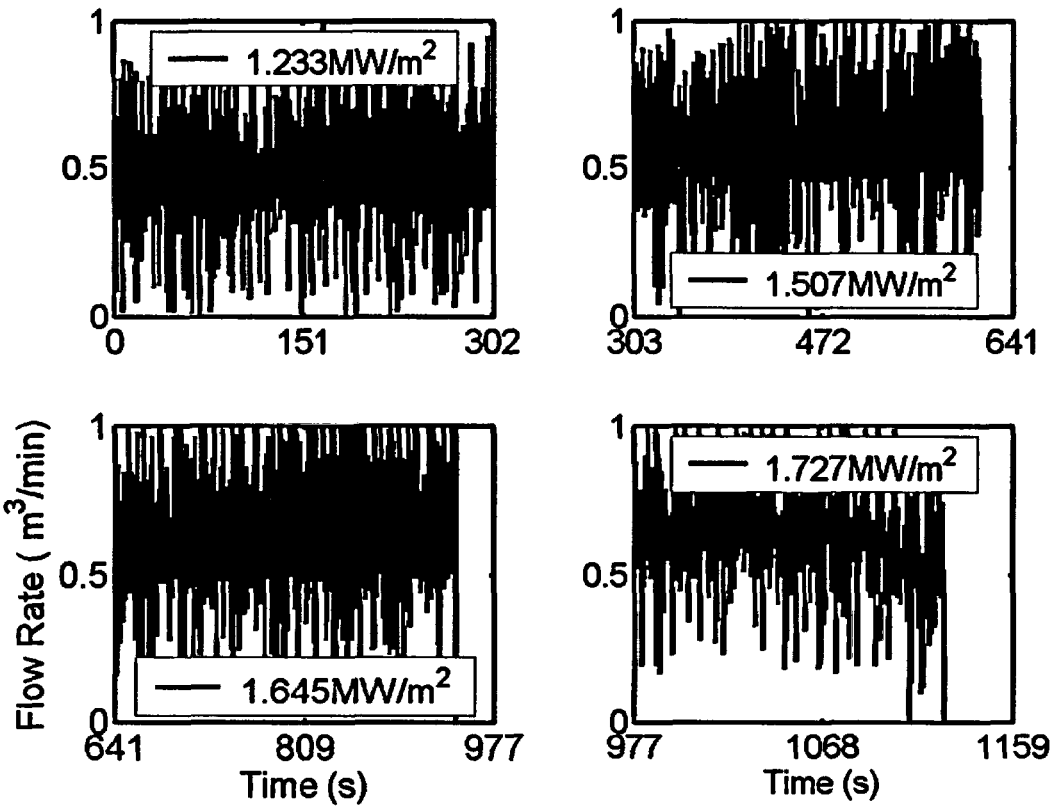

Figure A09.6. Flow rates at different heat fluxes.

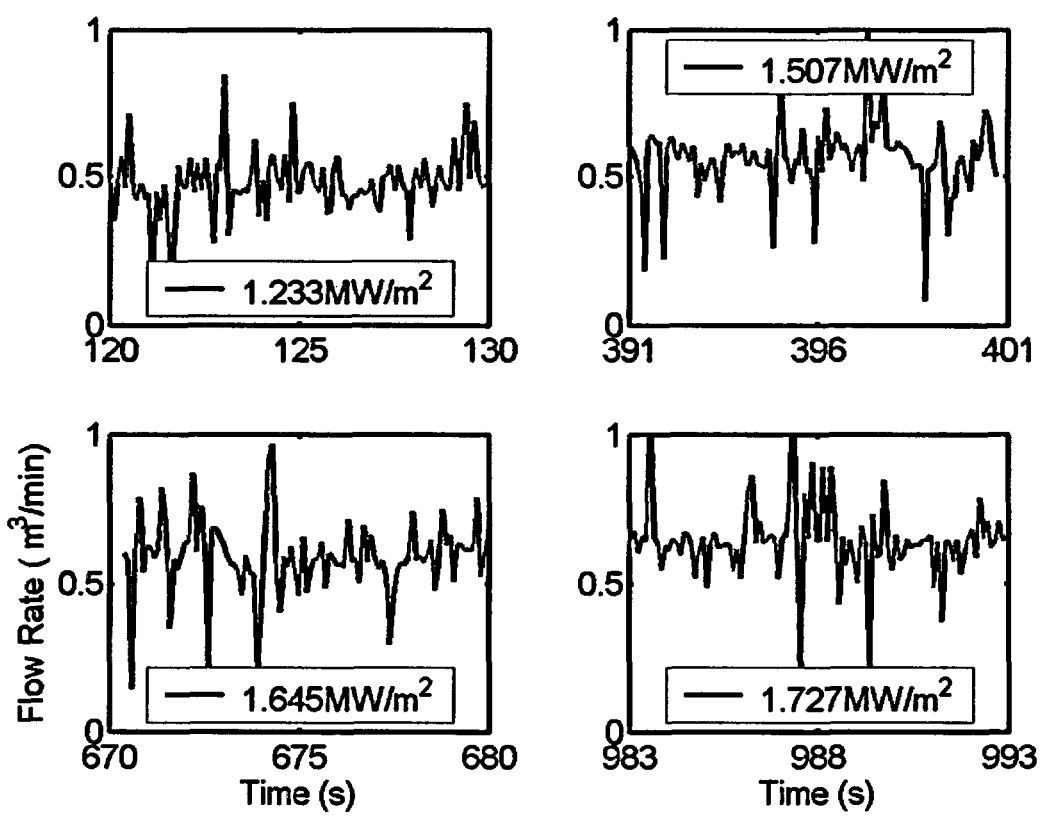

Figure A09.7. Flow rates at different heat fluxes at selected time intervals.

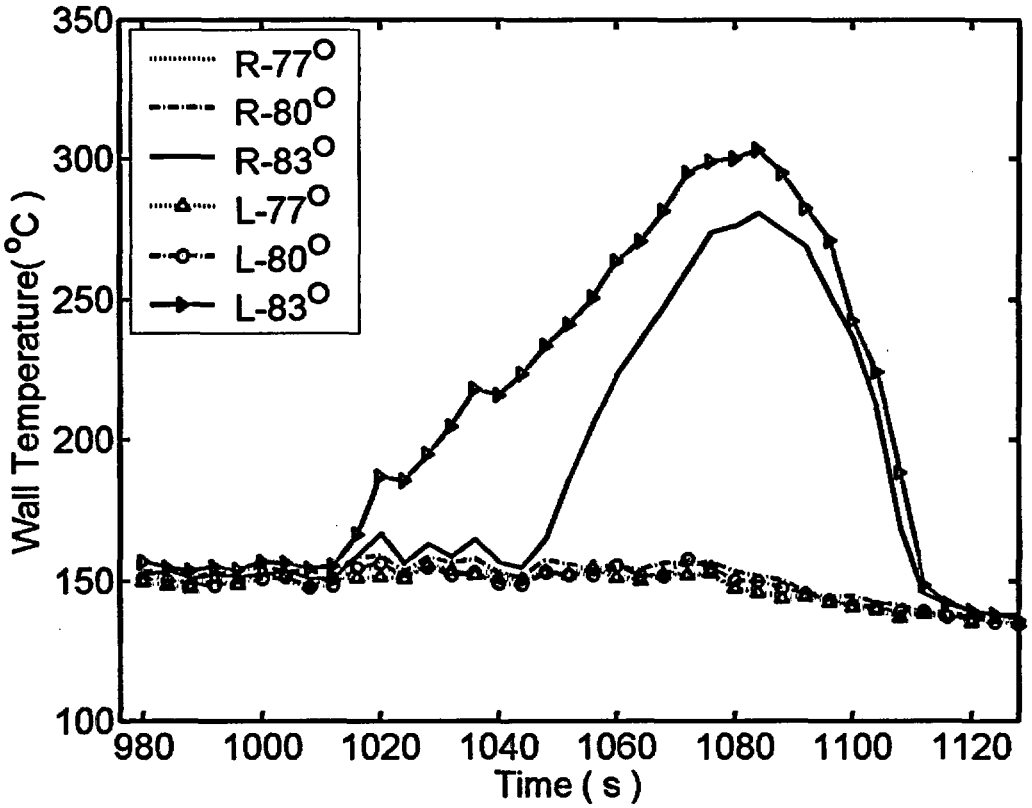

Figure A09.8. Temperature history at CHF.

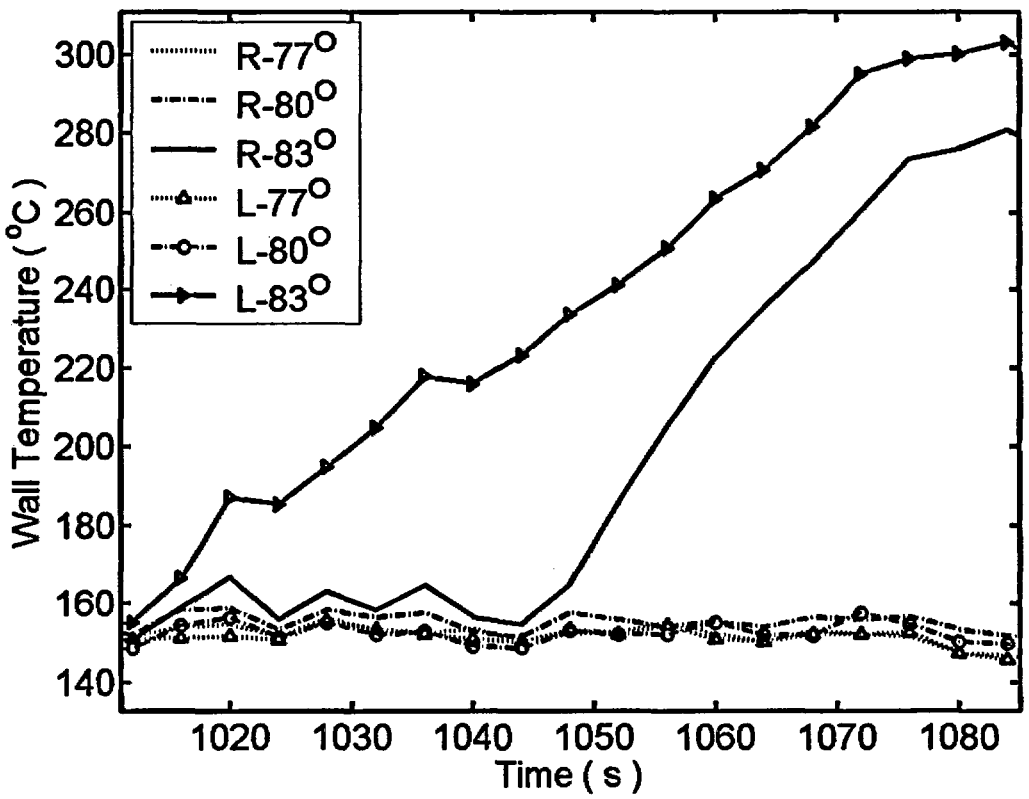

Figure A09.9. Temperature history at CHF in detail.

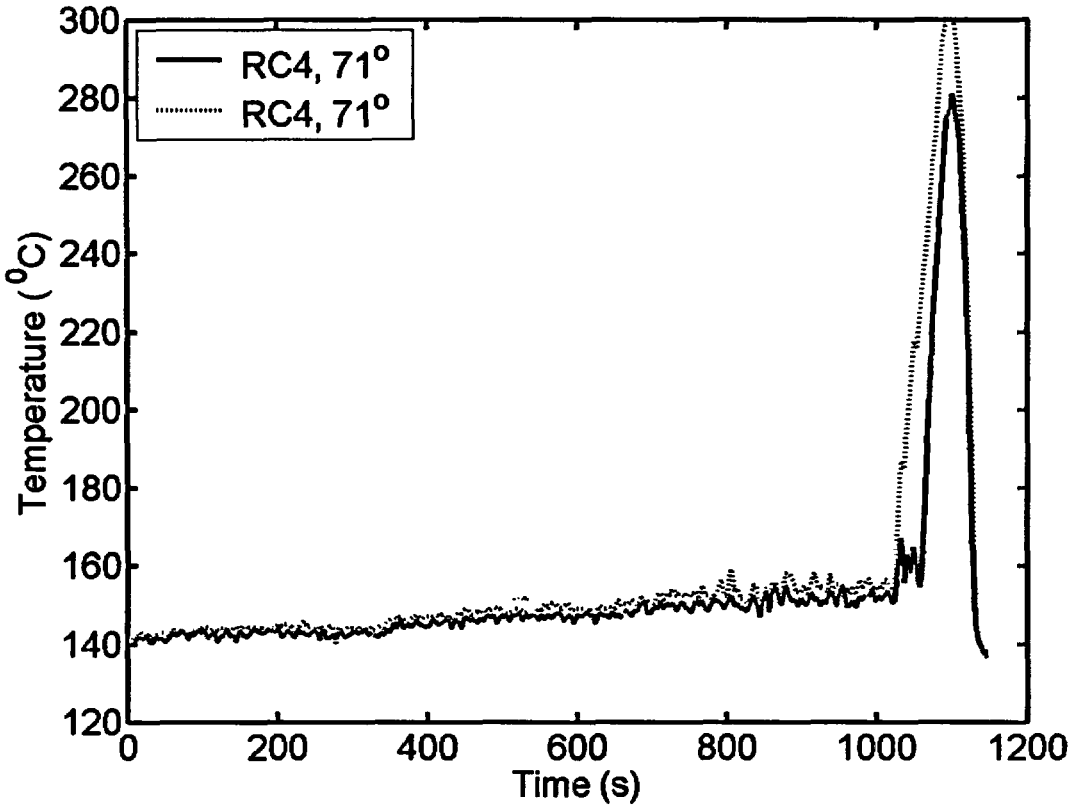

Figure A09.10. Wall temperature history measured by two thermocouples LC8 and RC8.

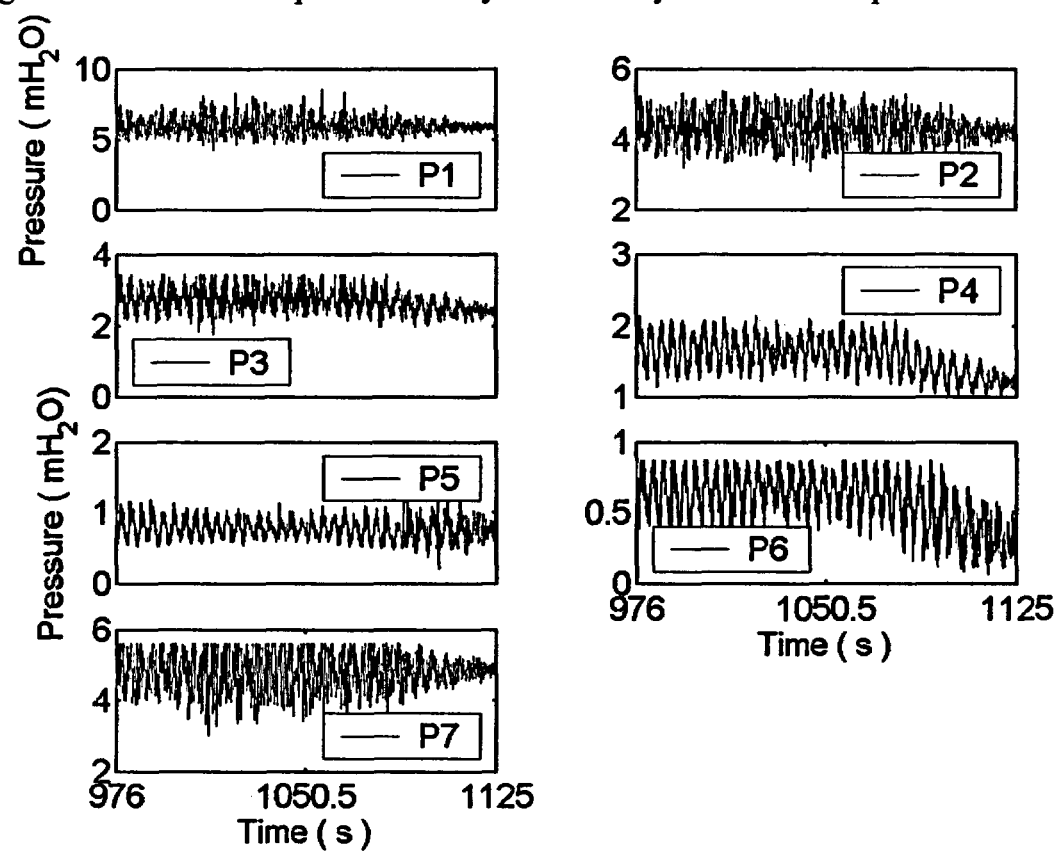

Figure A09.11. Pressure transducer data at q = 1.727 MW/m^2.

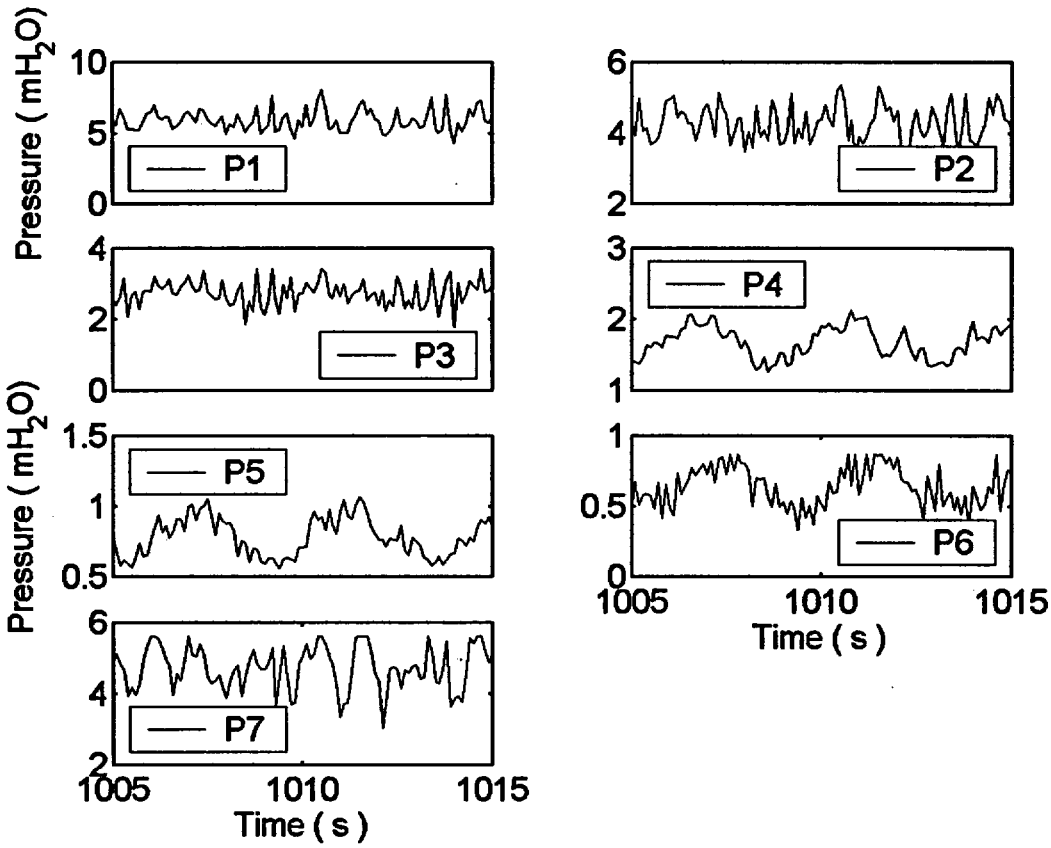

Figure A09.12. Pressure data in detail at q = 1.727 MW/m^2.

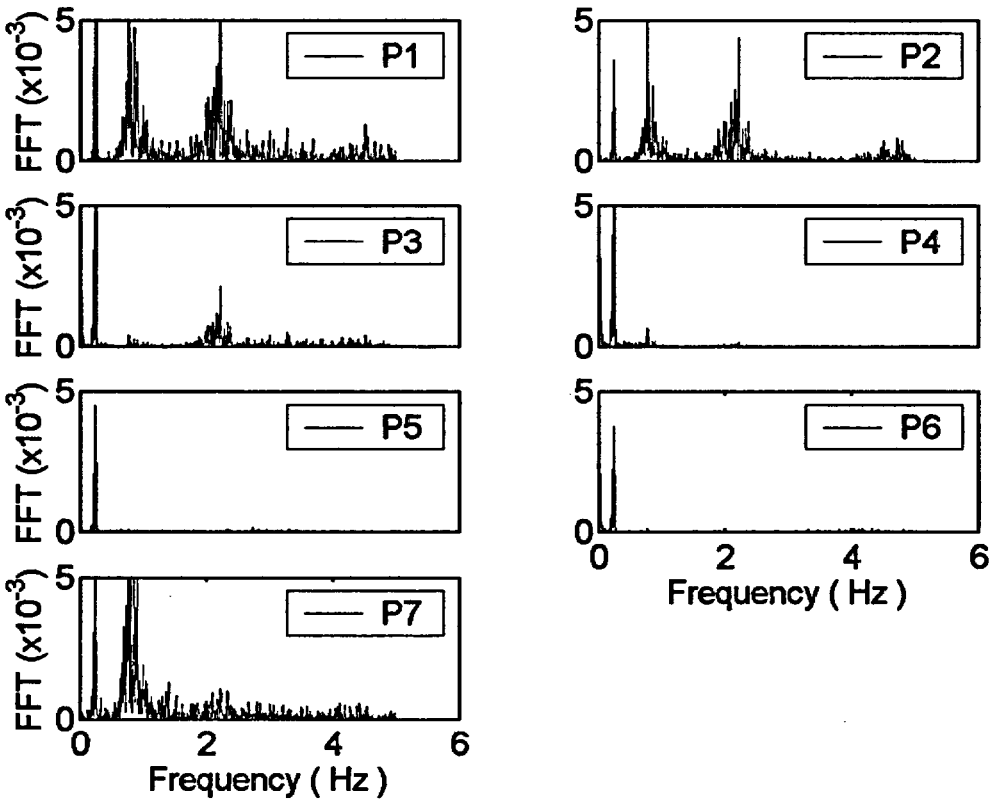

Figure A09.13. FFT of pressure time series at q = 1.727 MW/m^2.

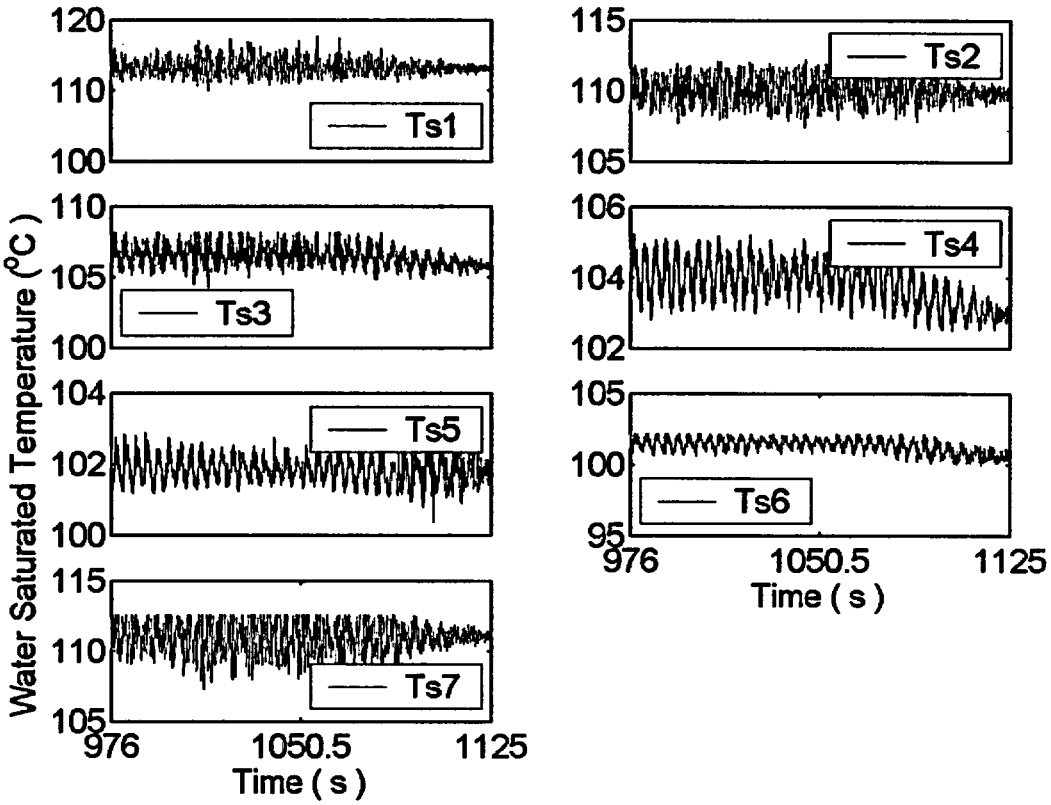

Figure A09.14. Water saturation temperature calculated from local pressure data at q = 1.727 MW/m^2.

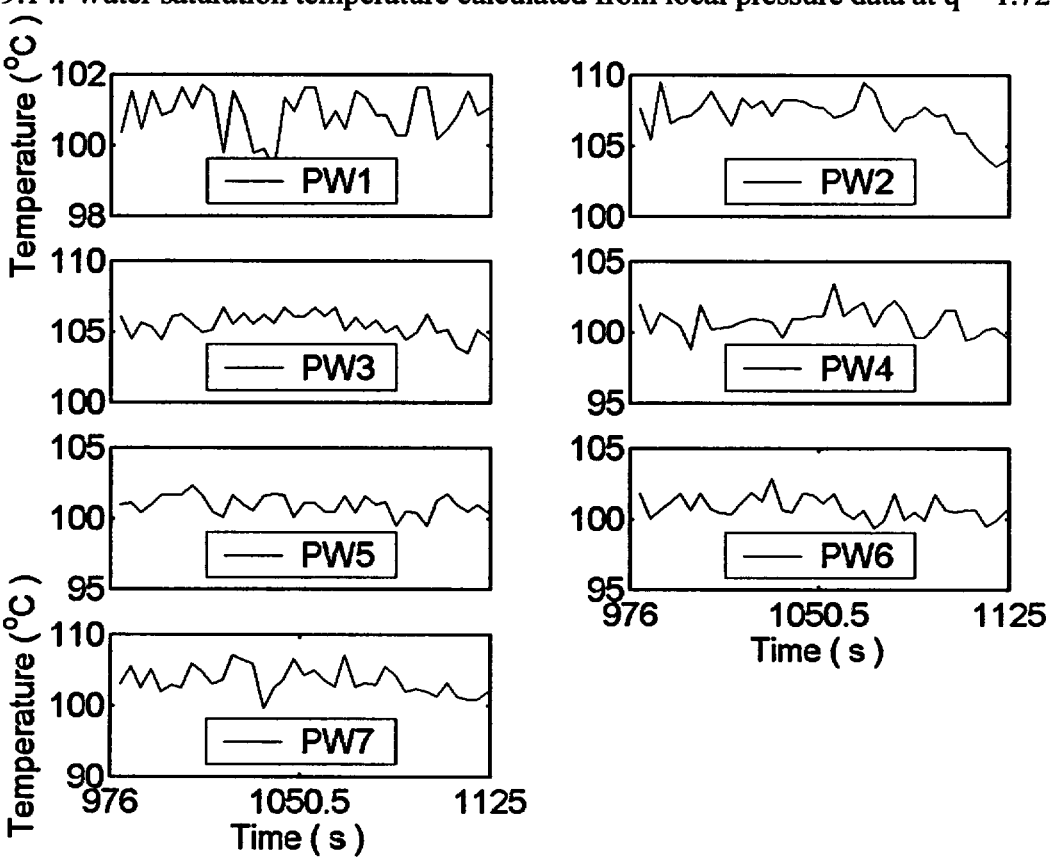

Figure A09.15. Water temperature measured at location of pressure transducer at q = 1.727 MW/m^2.

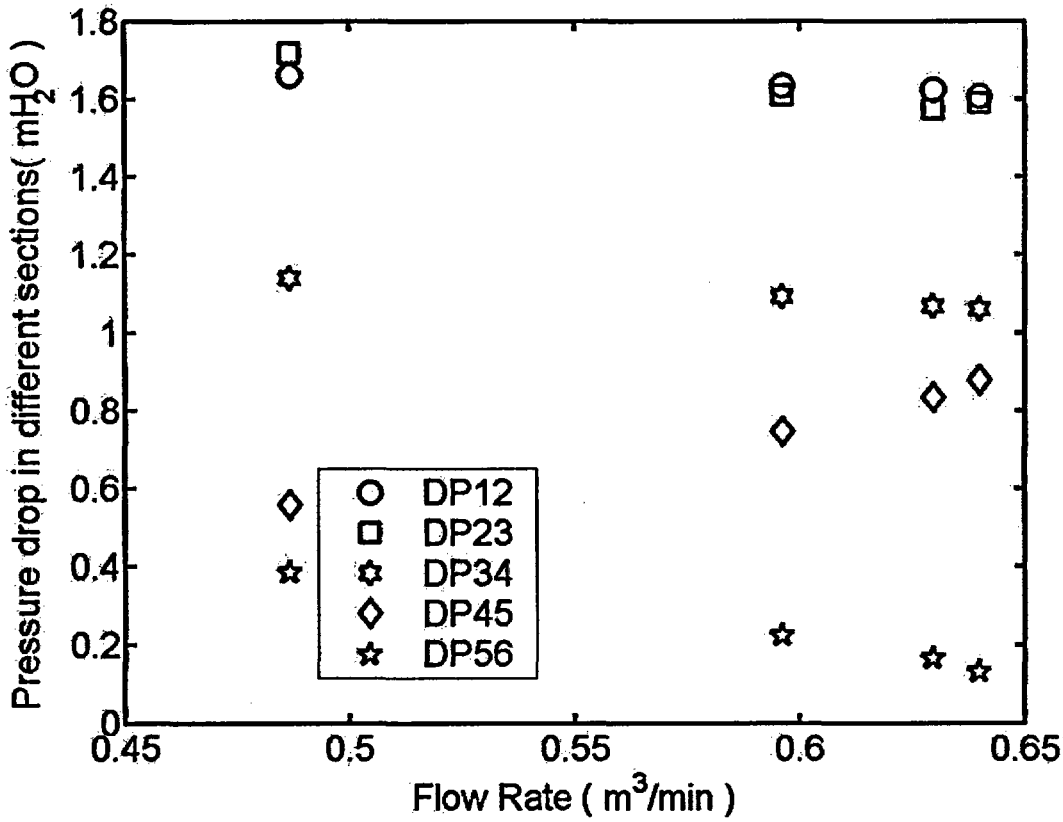

Figure A09.16. Pressure drop vs. flow rate at different heat fluxes.

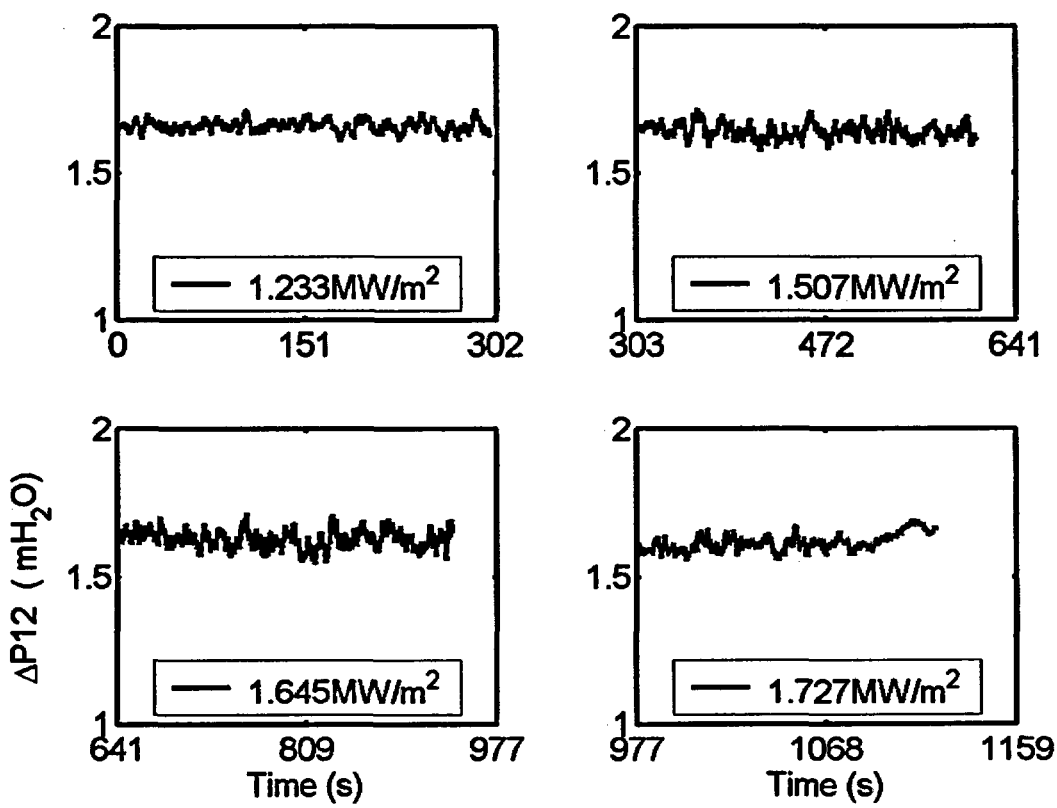

Figure A09.17. Differential Pressure ΔP12 at different heat fluxes.

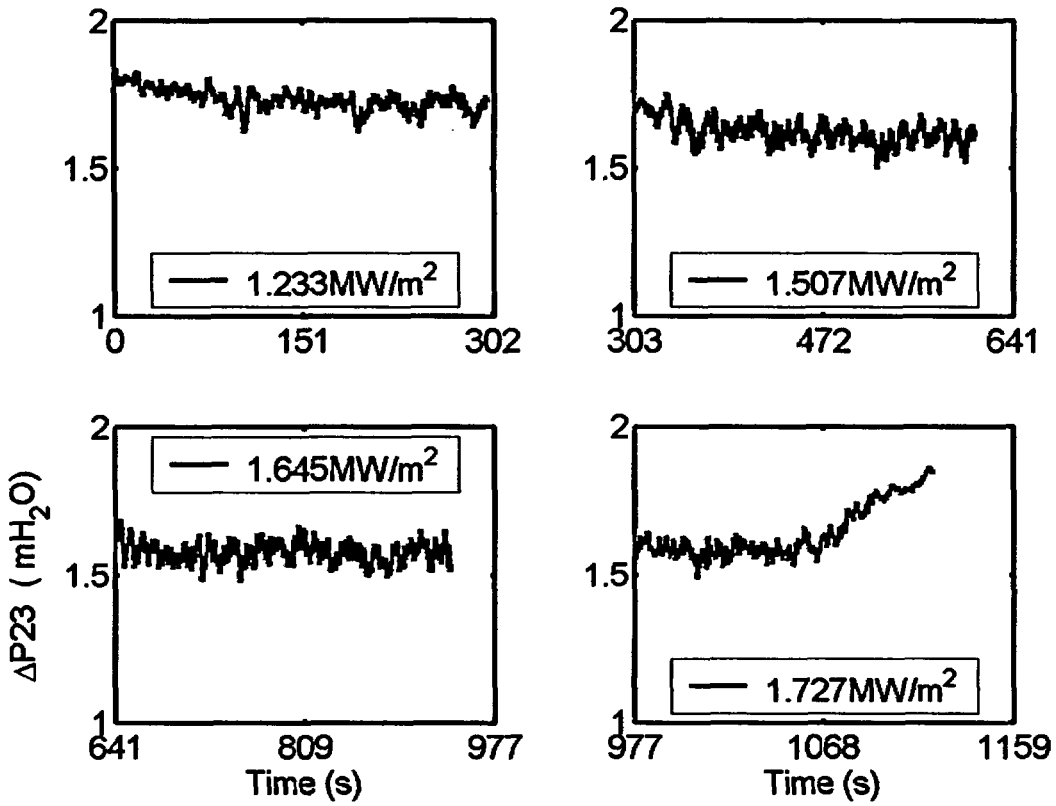

Figure A09.18. Differential Pressure ΔP23 at different heat fluxes.

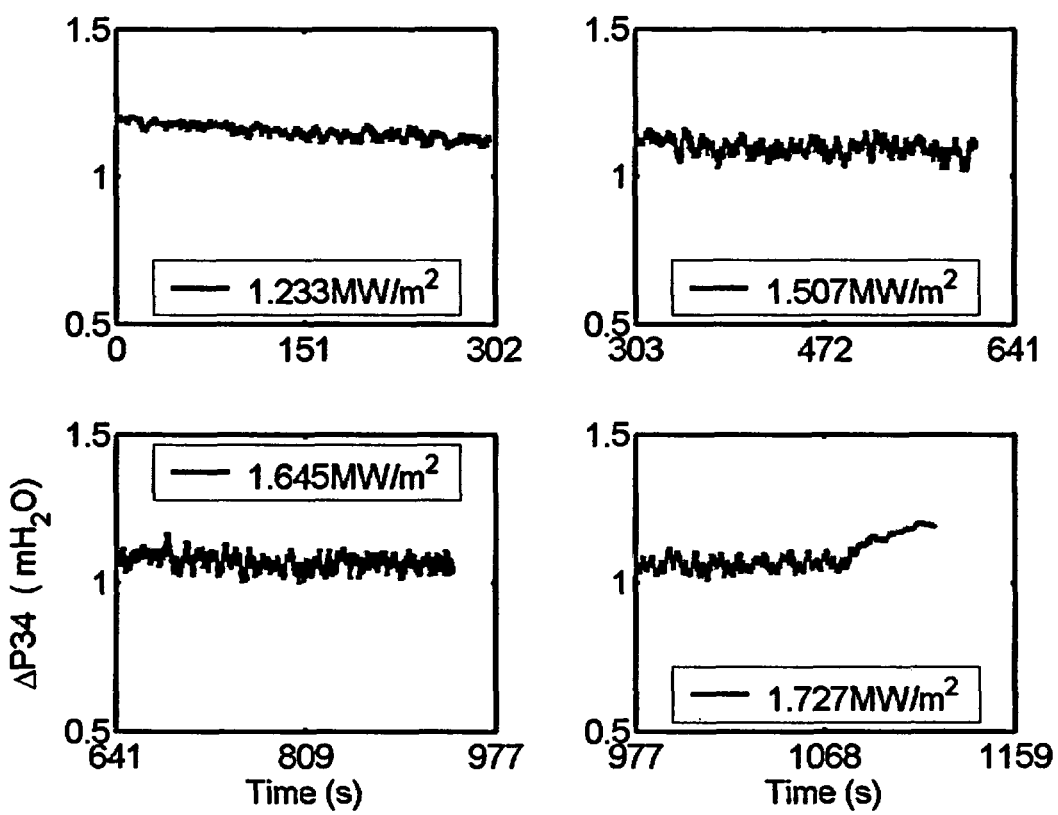

Figure A09.19. Differential Pressure ΔP34 at different heat fluxes.

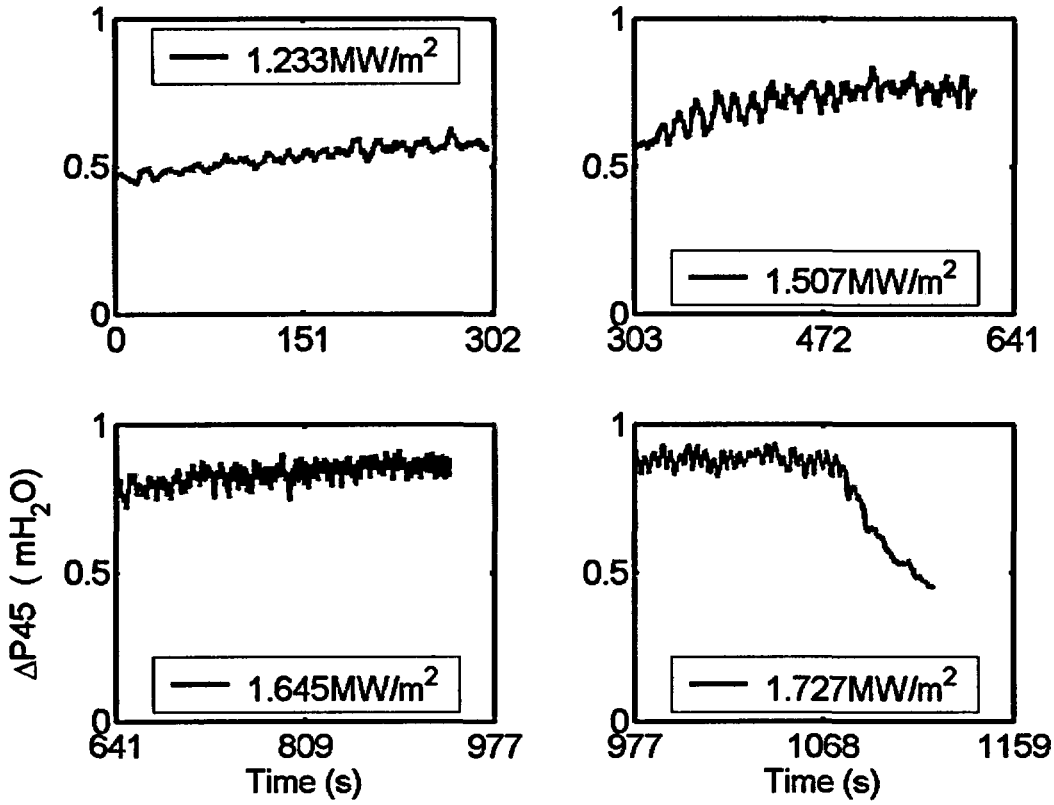

Figure A09.20. Differential Pressure ΔP45 at different heat fluxes.

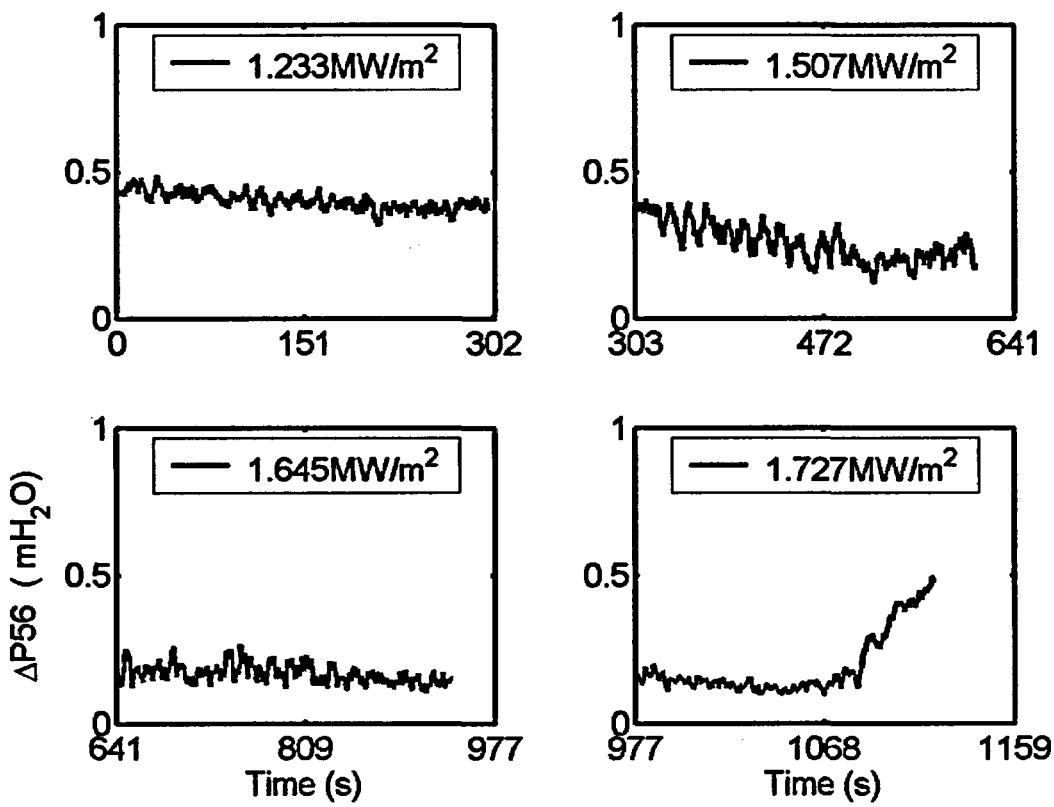

Figure A09.21. Differential Pressure ΔP56 at different heat fluxes.

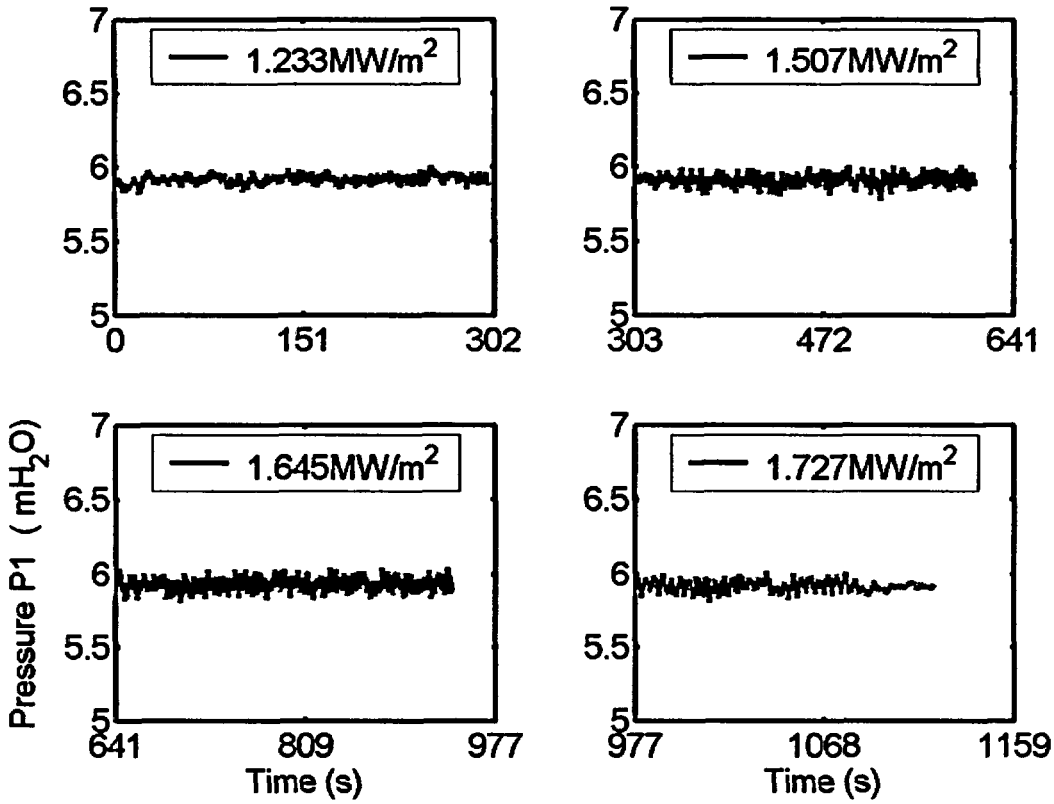

Figure A09.22. Pressure P1 at different heat fluxes.

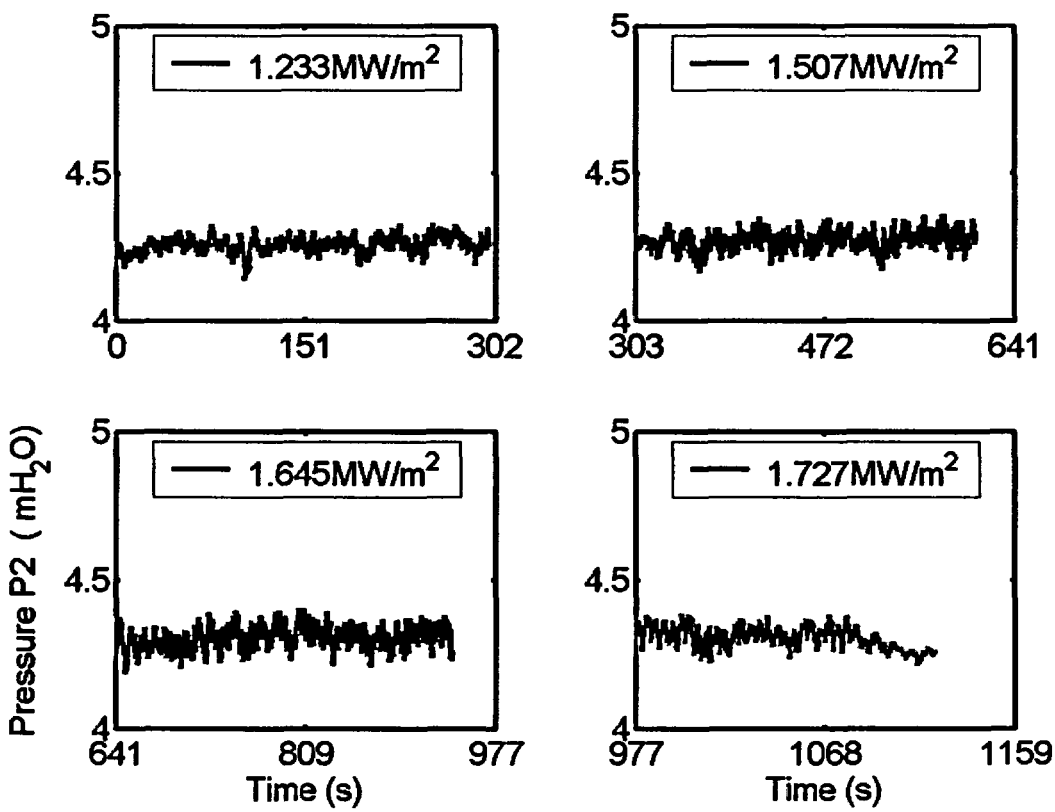

Figure A09.23. Pressure P2 at different heat fluxes.

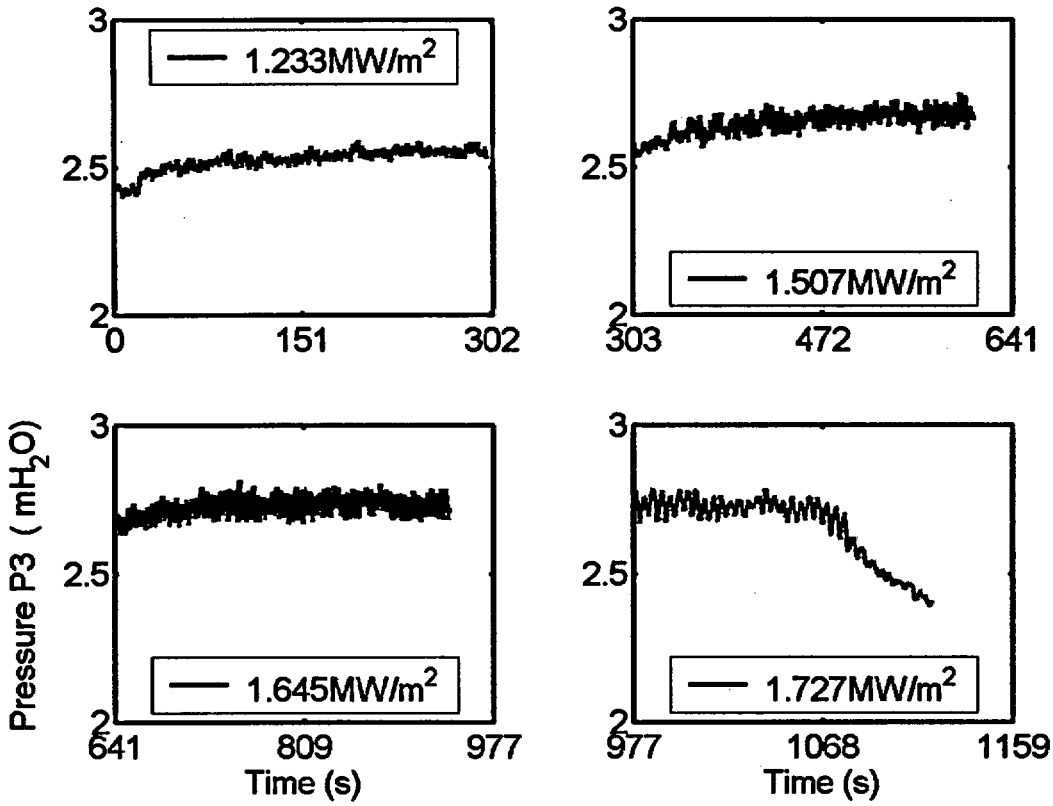

Figure A09.24. Pressure P3 at different heat fluxes.

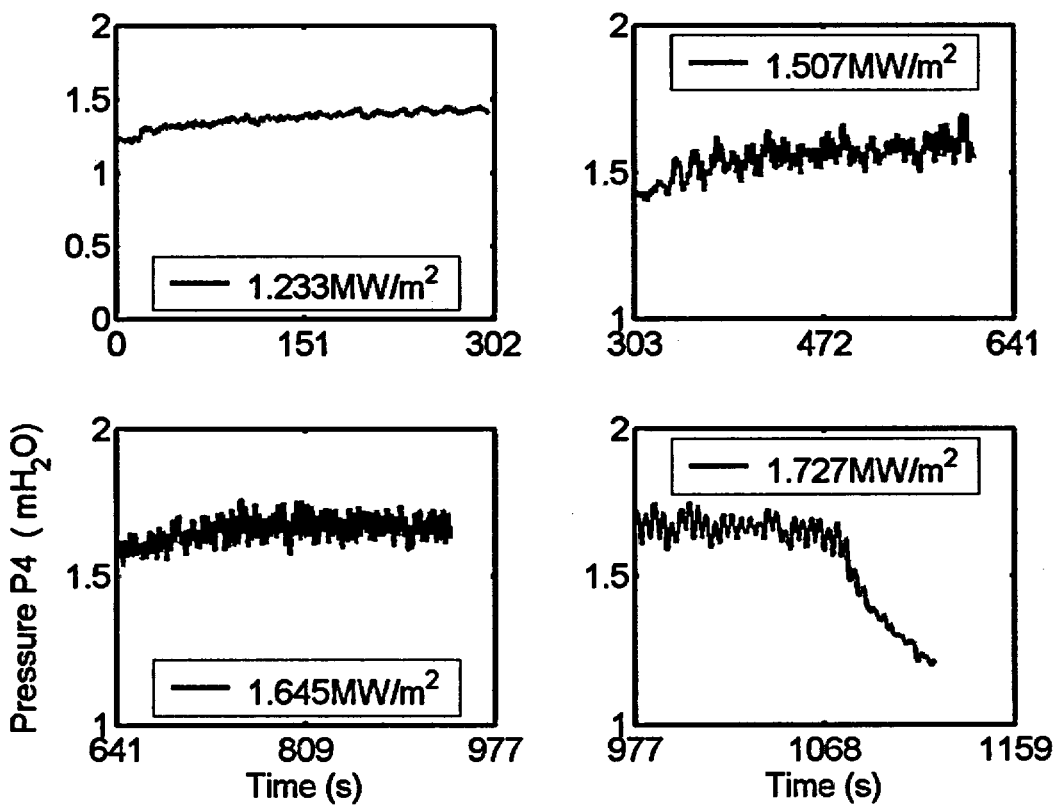

Figure A09.25. Pressure P4 at different heat fluxes.

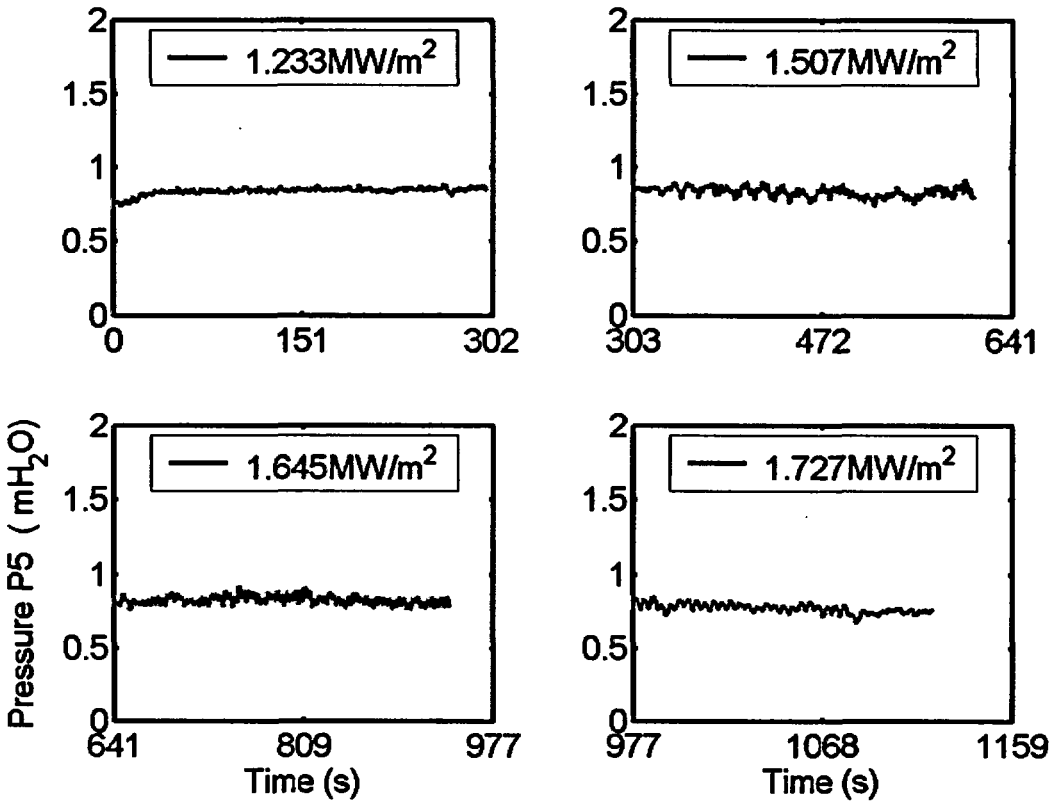

Figure A09.26. Pressure P5 at different heat fluxes.

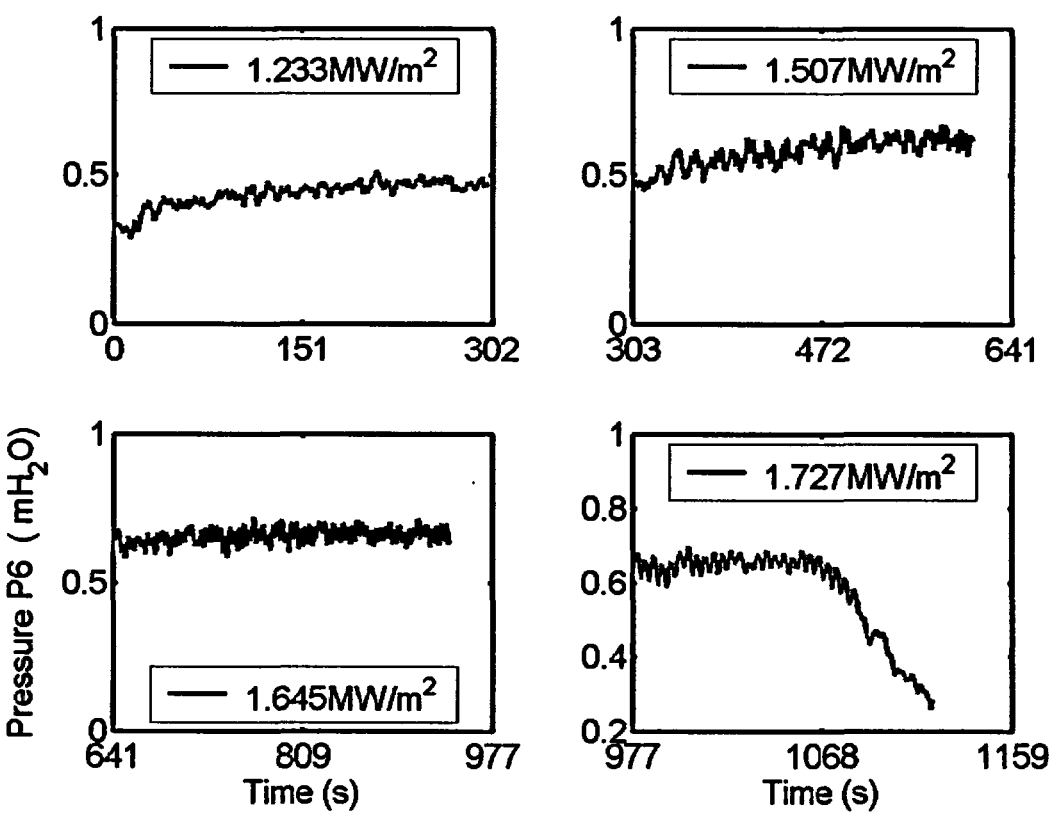

Figure A09.27. Pressure P6 at different heat fluxes.

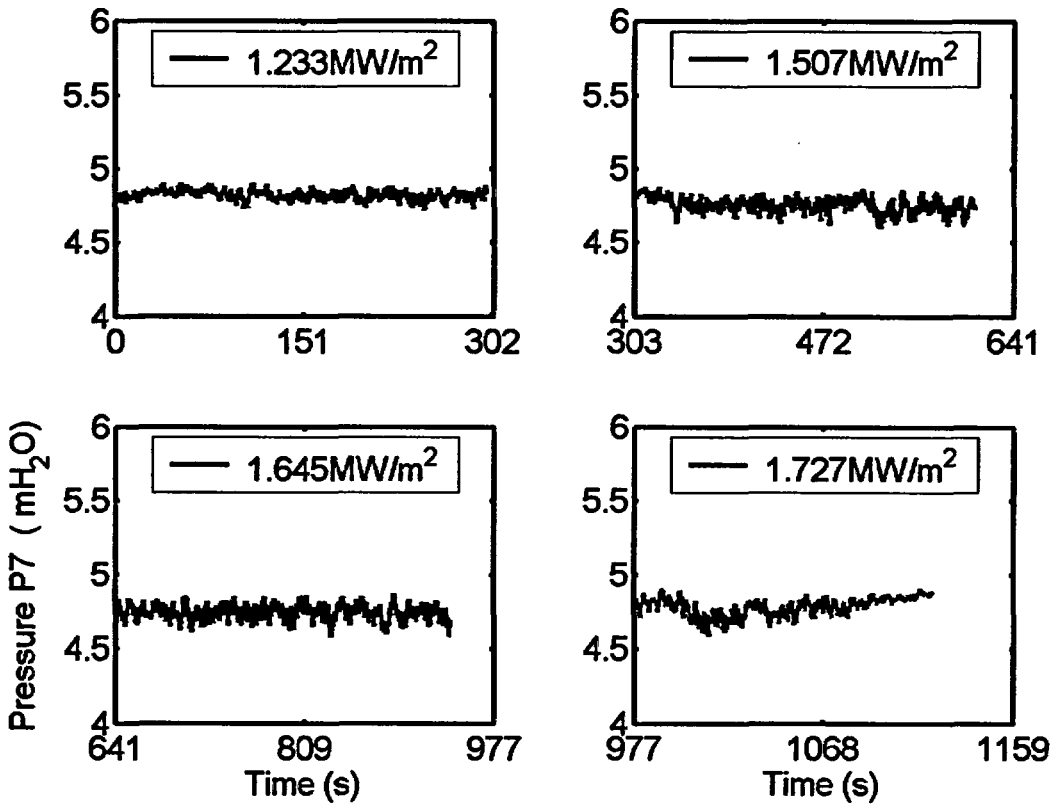

Figure A09.28. Pressure P7 at different heat fluxes.

ID #10

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T48A	1919	RC8	83	C	01/09/2003/15:30am

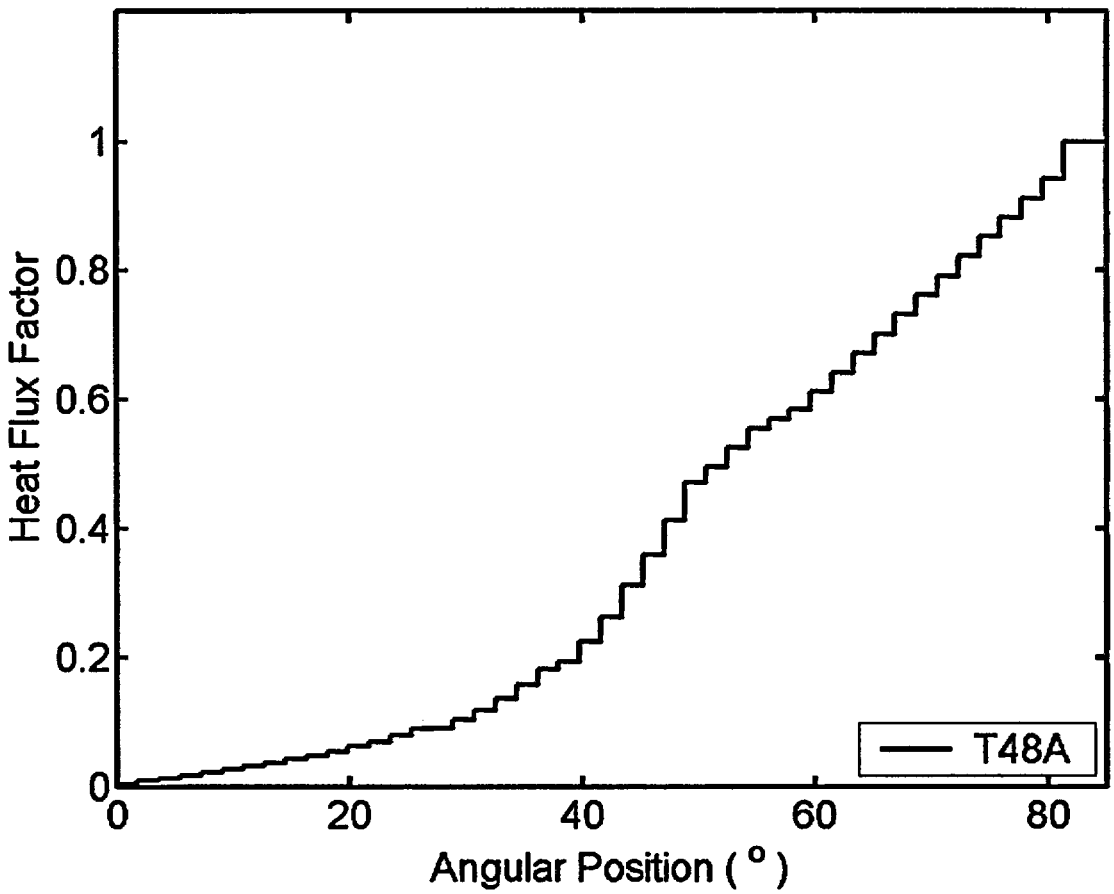

Figure A10.1. Power shape.

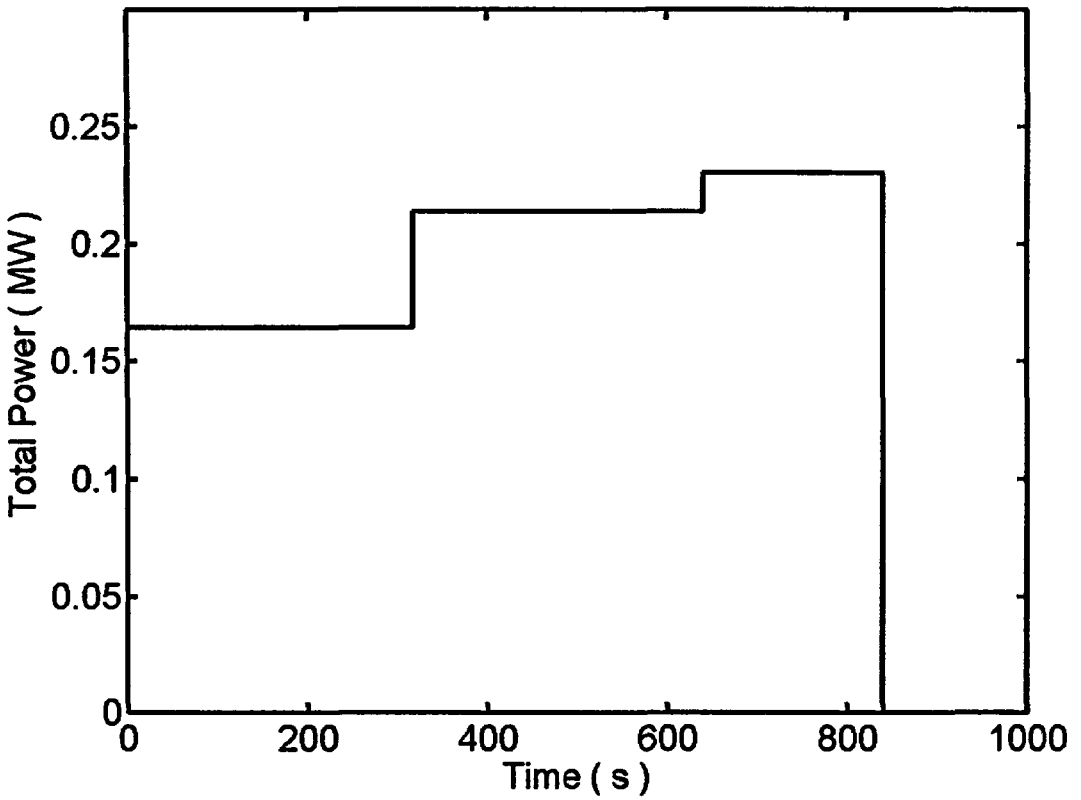

Figure A10.2. Total input power history.

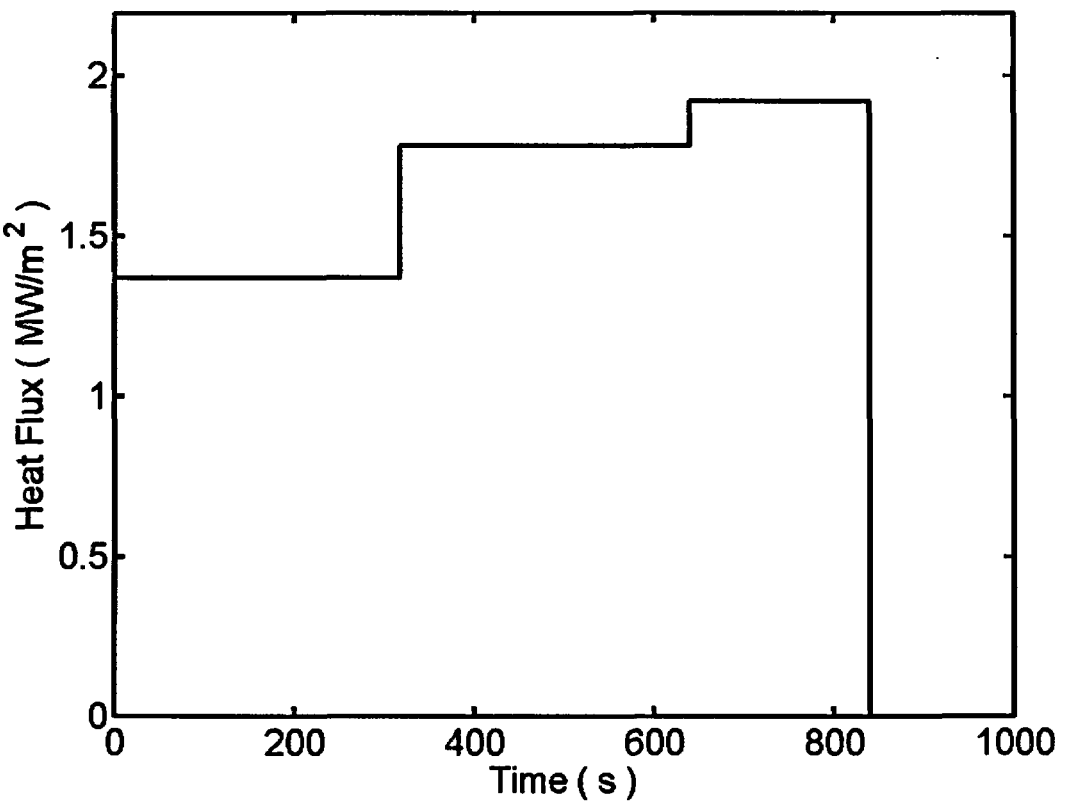

Figure A10.3. Heat flux history.

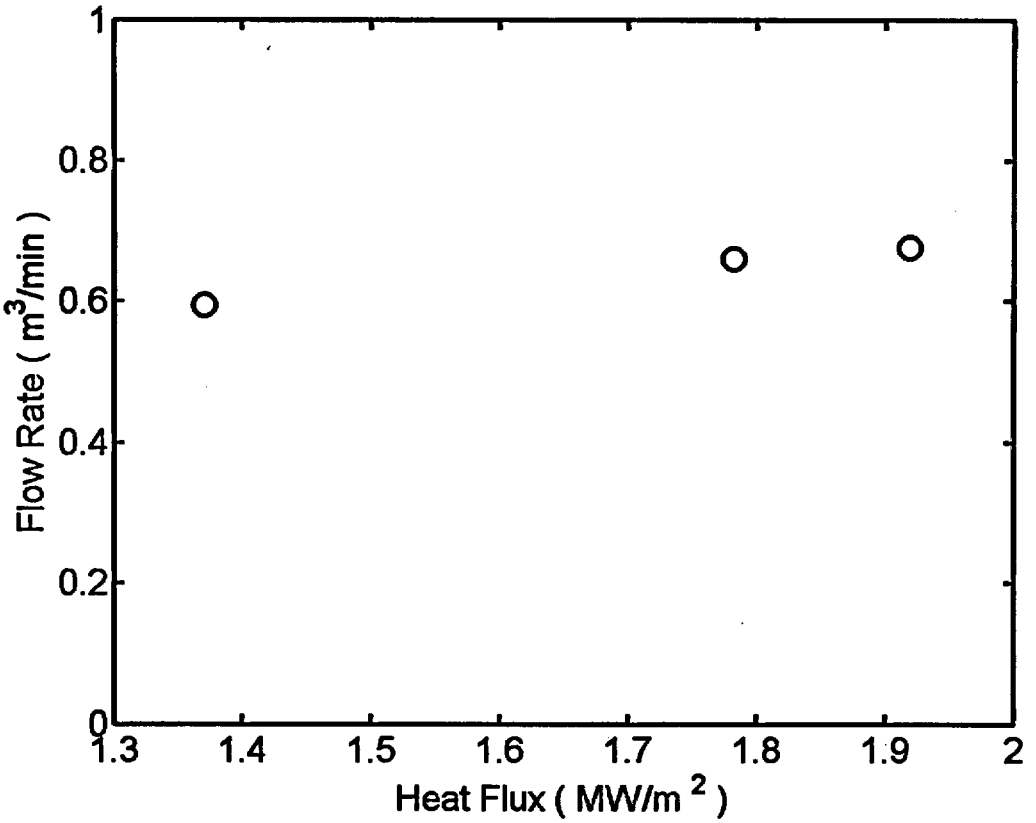

Figure A10.4. Flow rate vs. heat fluxes.

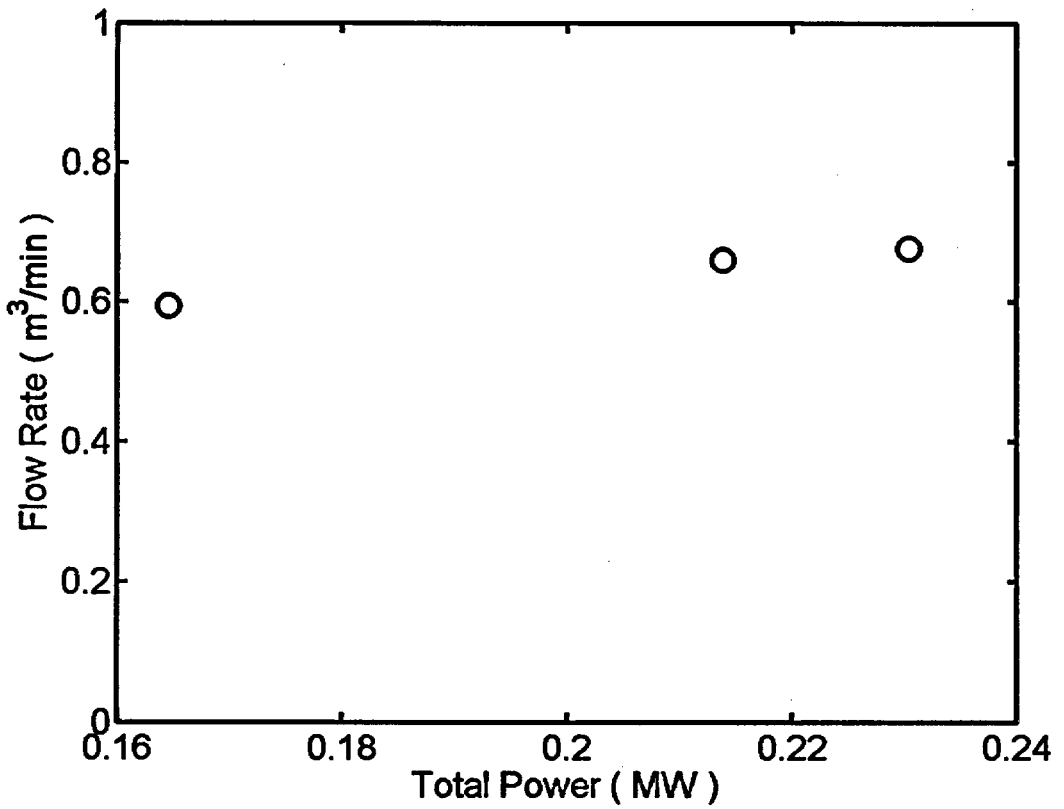

Figure A10.5. Flow rate vs. total input power.

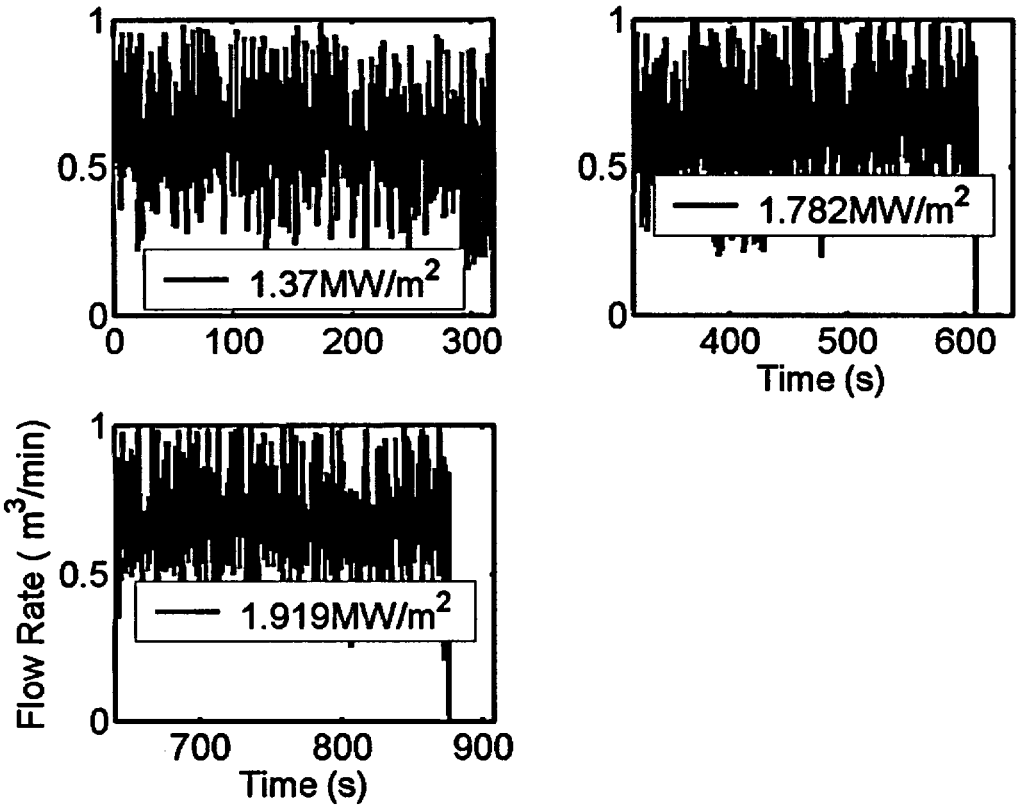

Figure A10.6. Flow rates at different heat fluxes.

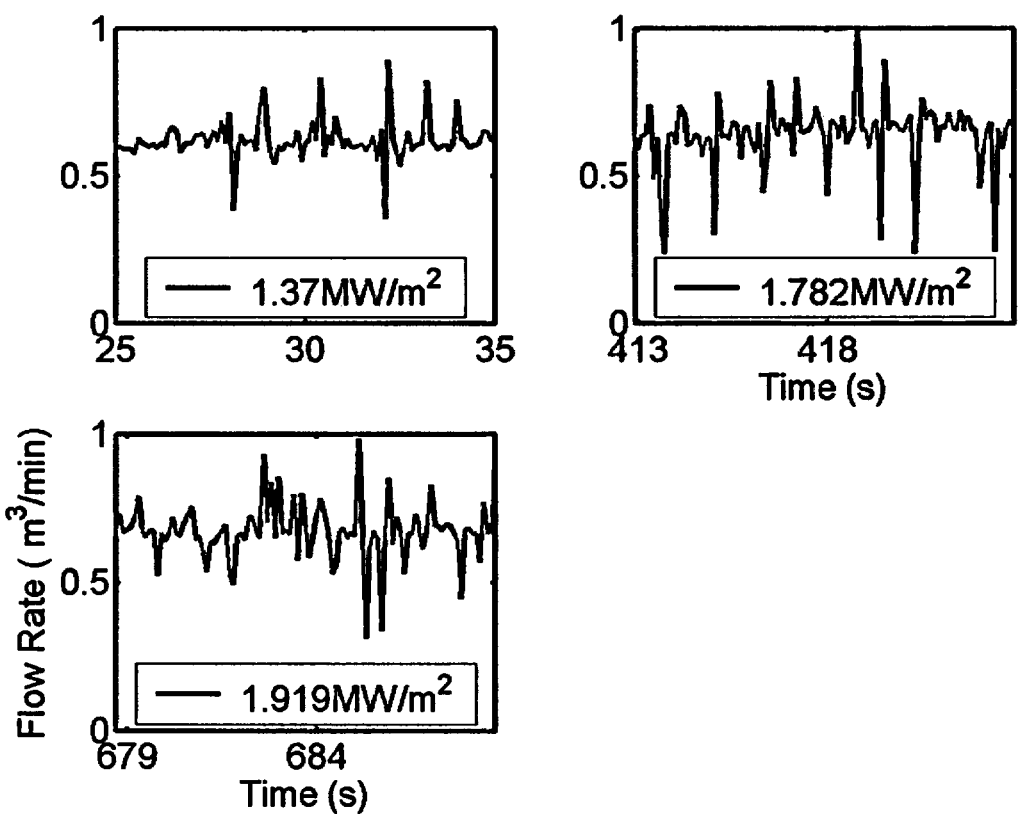

Figure A10.7. Flow rates at different heat fluxes at selected time intervals.

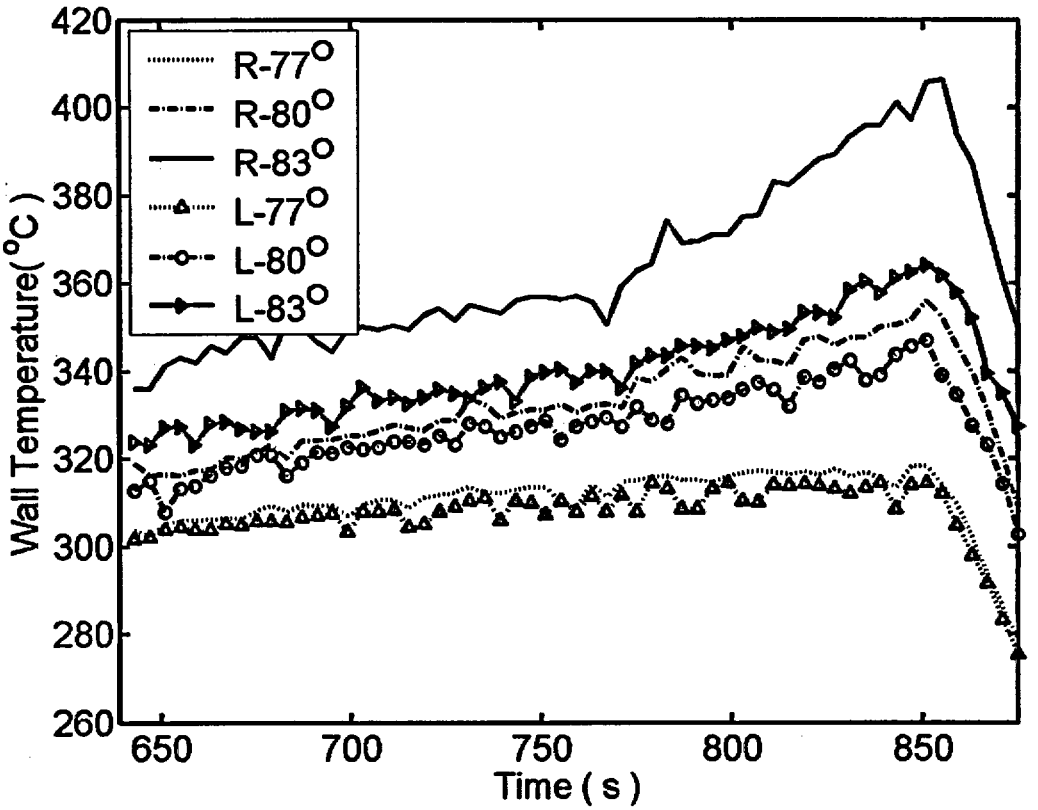

Figure A10.8. Temperature history at CHF.

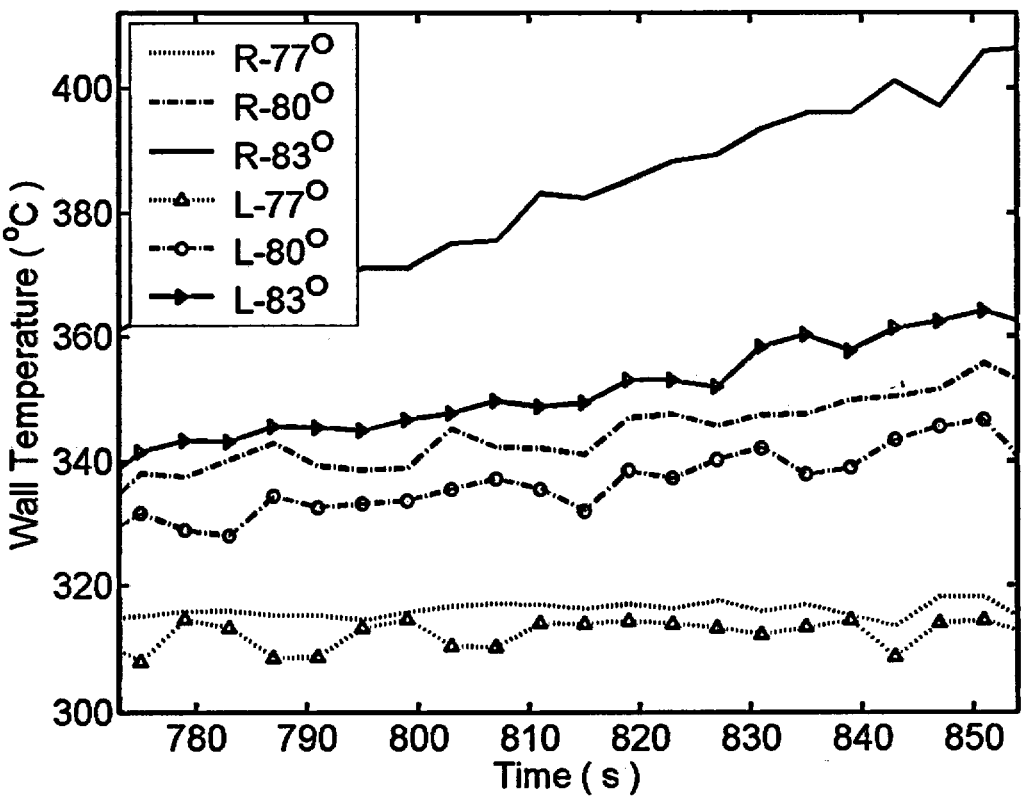

Figure A10.9. Temperature history at CHF in detail.

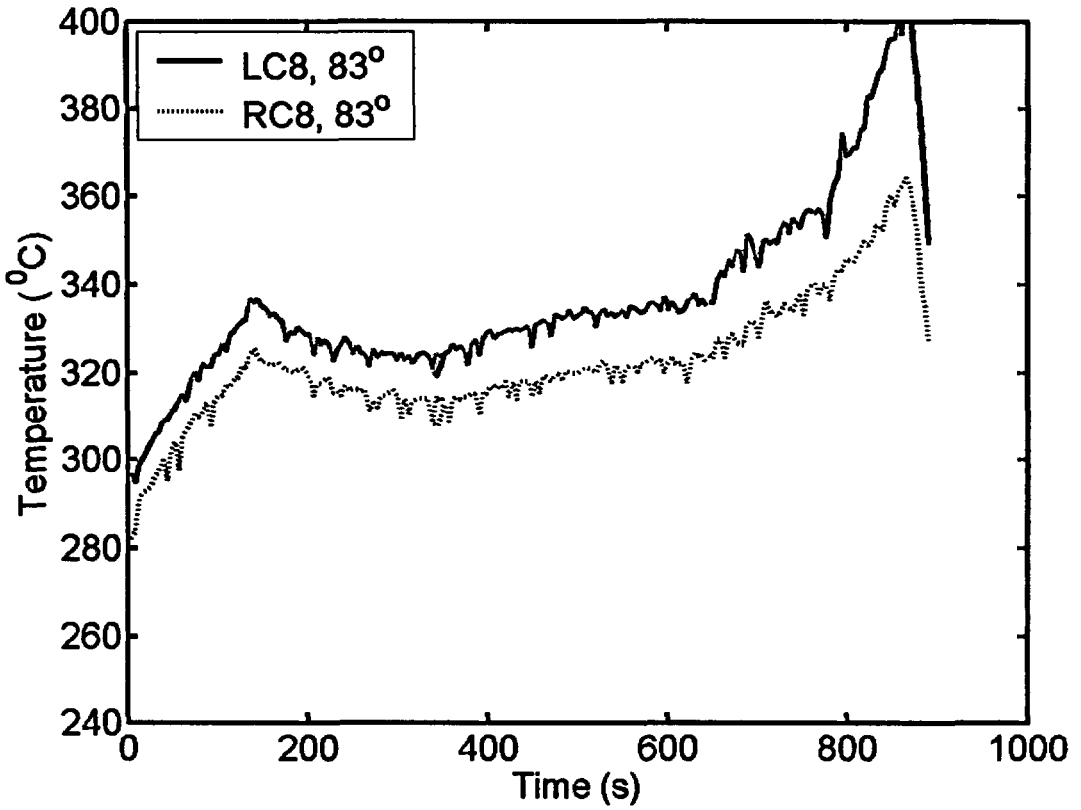

Figure A10.10. Wall temperature history measured by two thermocouples LC8 and RC8.

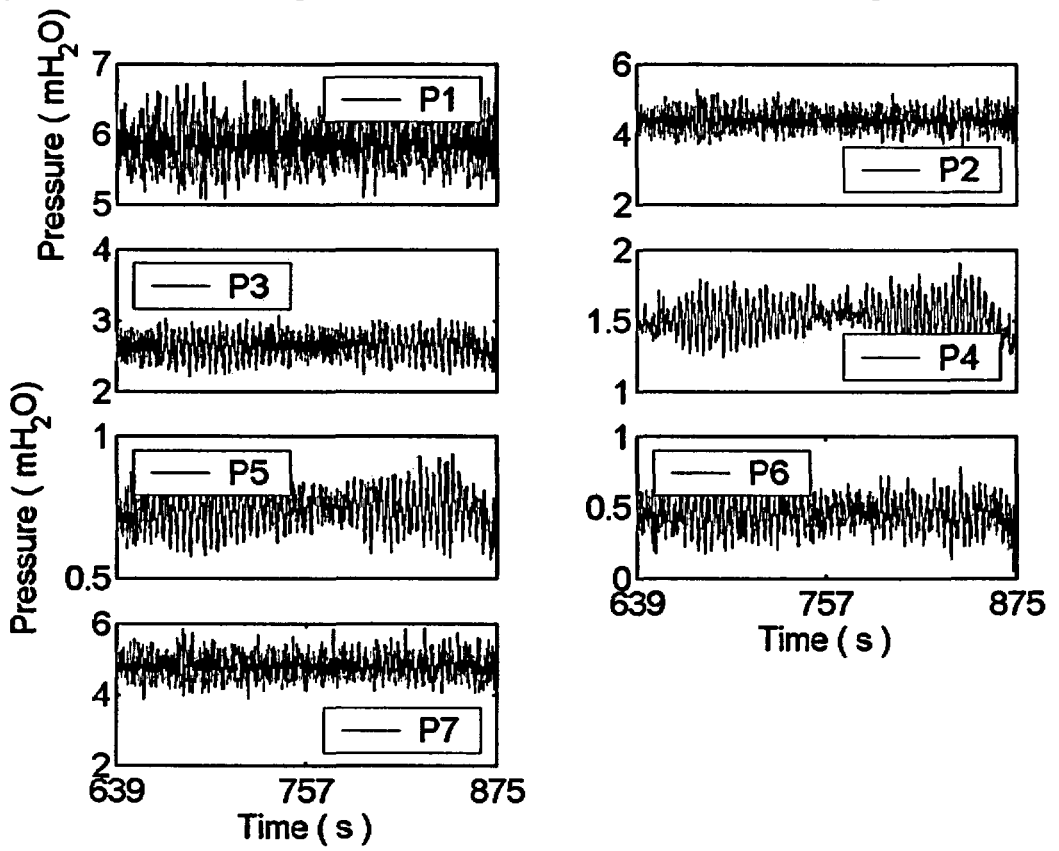

Figure A10.11. Pressure transducer data at q = 1.919 MW/m^2.

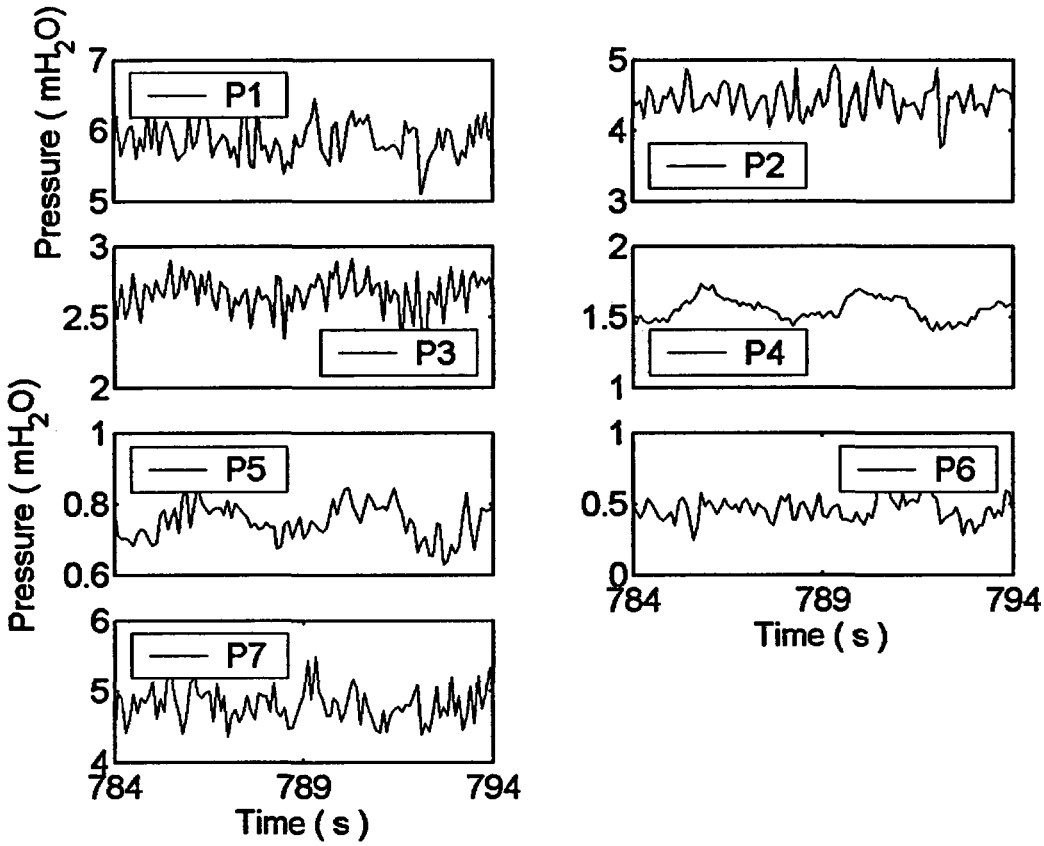

Figure A10.12. Pressure data in detail at q = 1.919 MW/m^2.

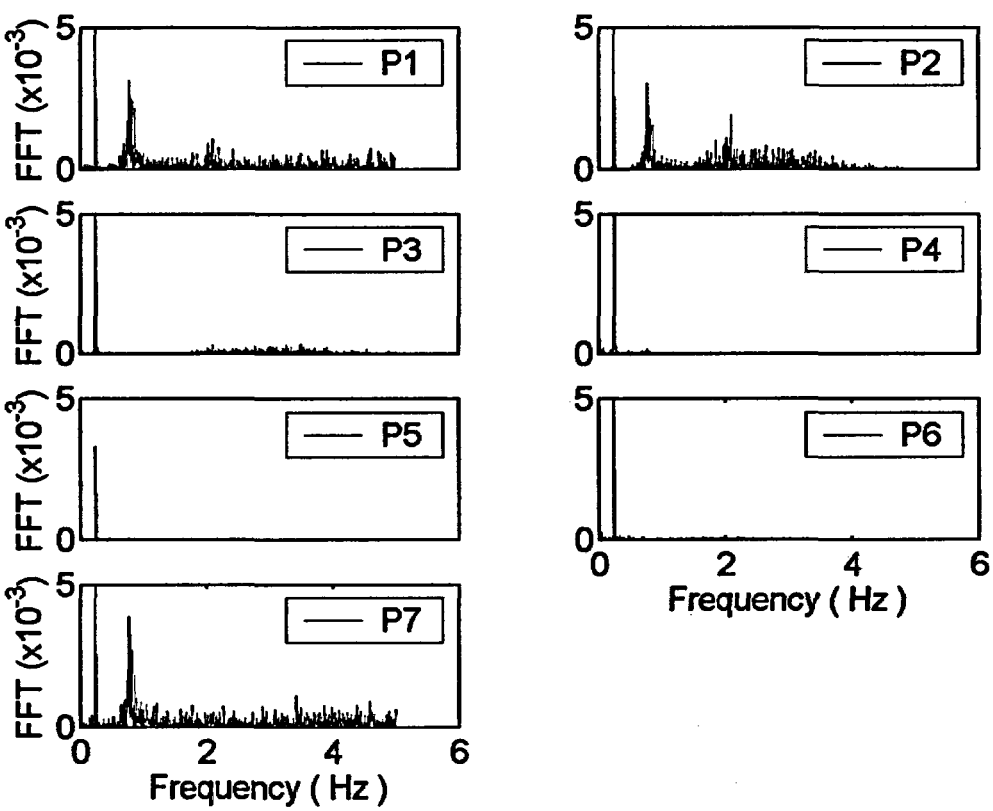

Figure A10.13. FFT of pressure time series at q = 1.919 MW/m^2.

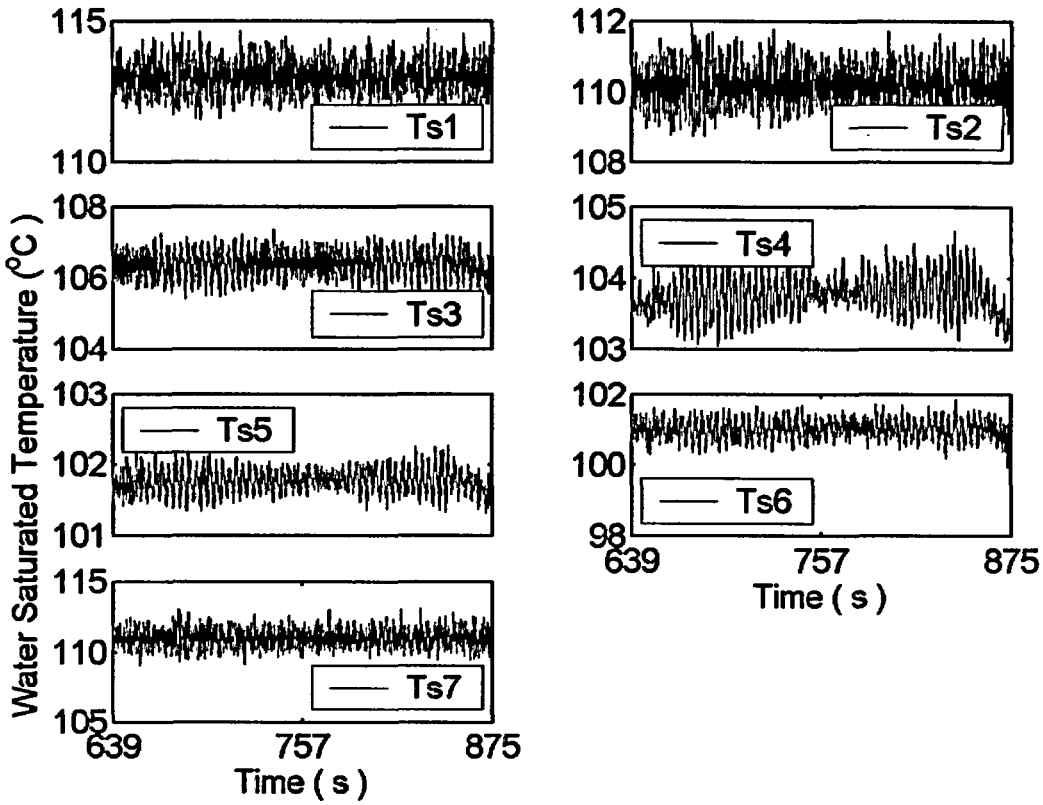

Figure A10.14. Water saturation temperature calculated from local pressure data at q = 1.919 MW/m^2.

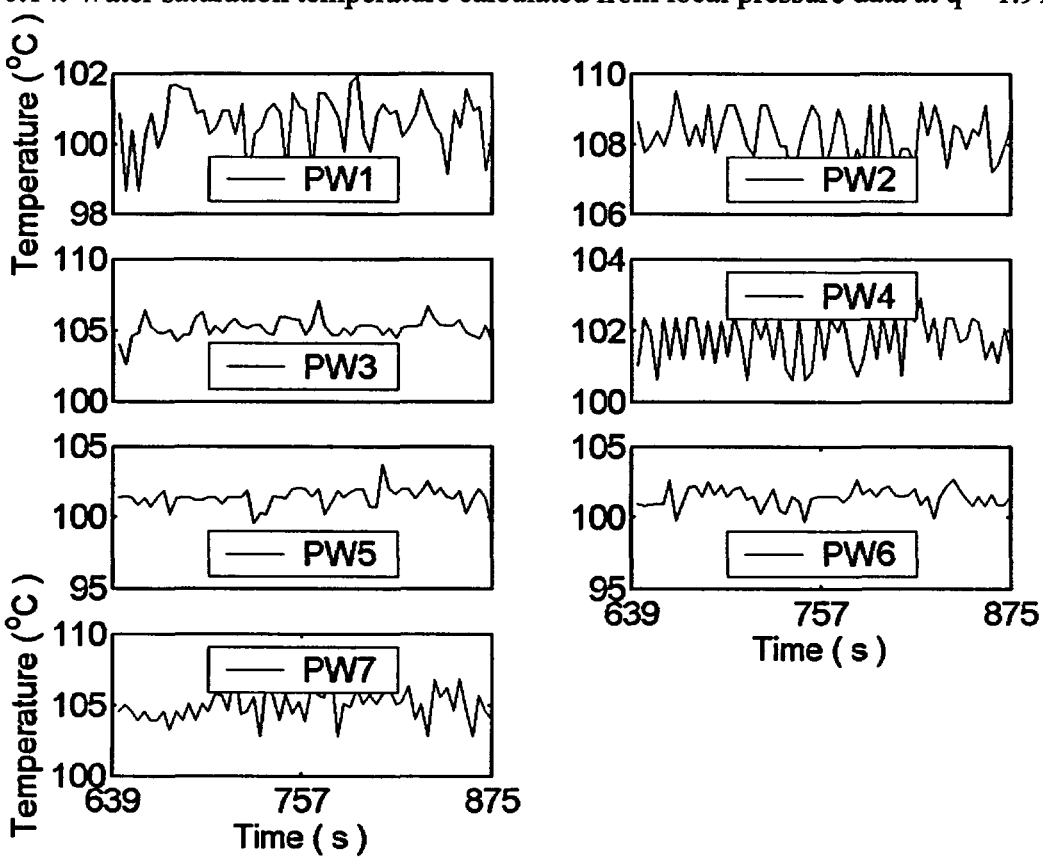

Figure A10.15. Water temperature measured at location of pressure transducer at q = 1.919 MW/m^2.

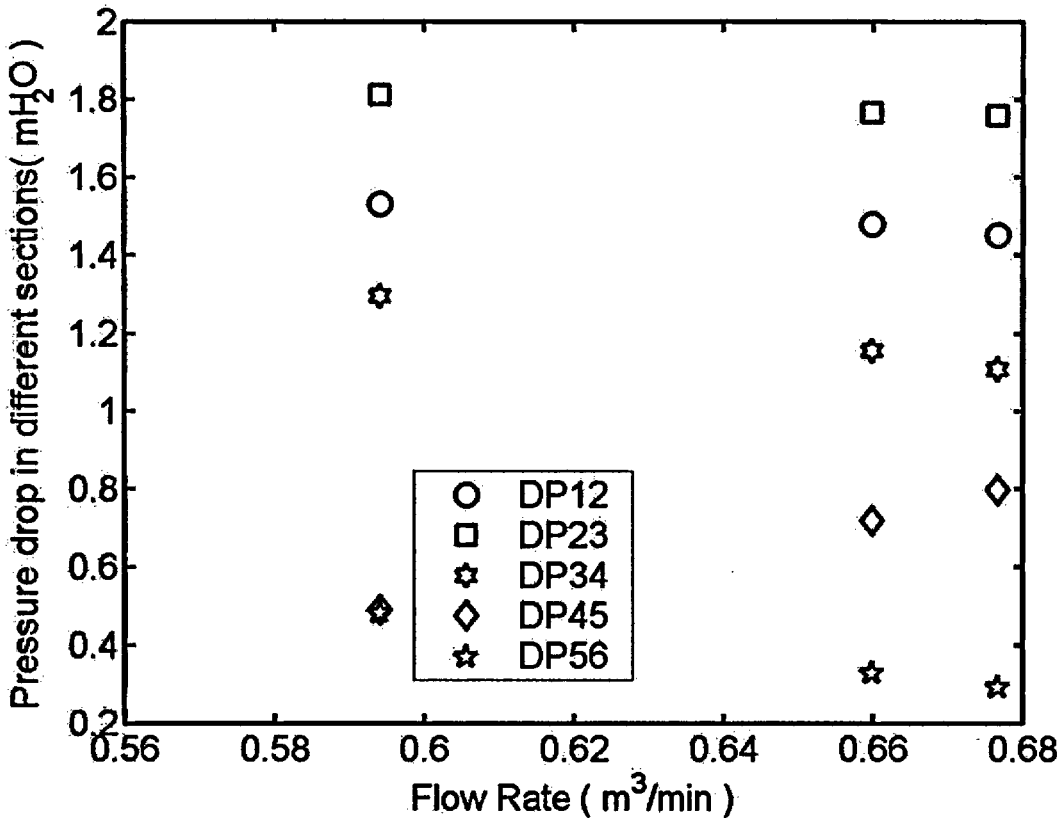

Figure A10.16. Pressure drop vs. flow rate at different heat fluxes.

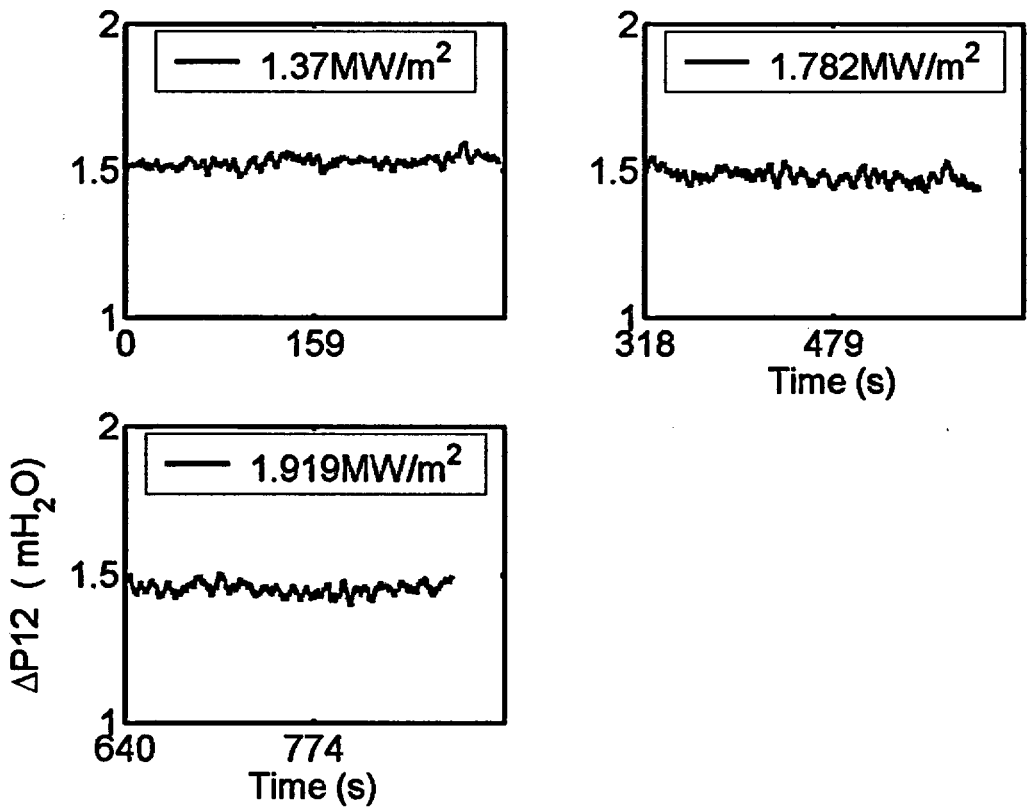

Figure A10.17. Differential Pressure ΔP12 at different heat fluxes.

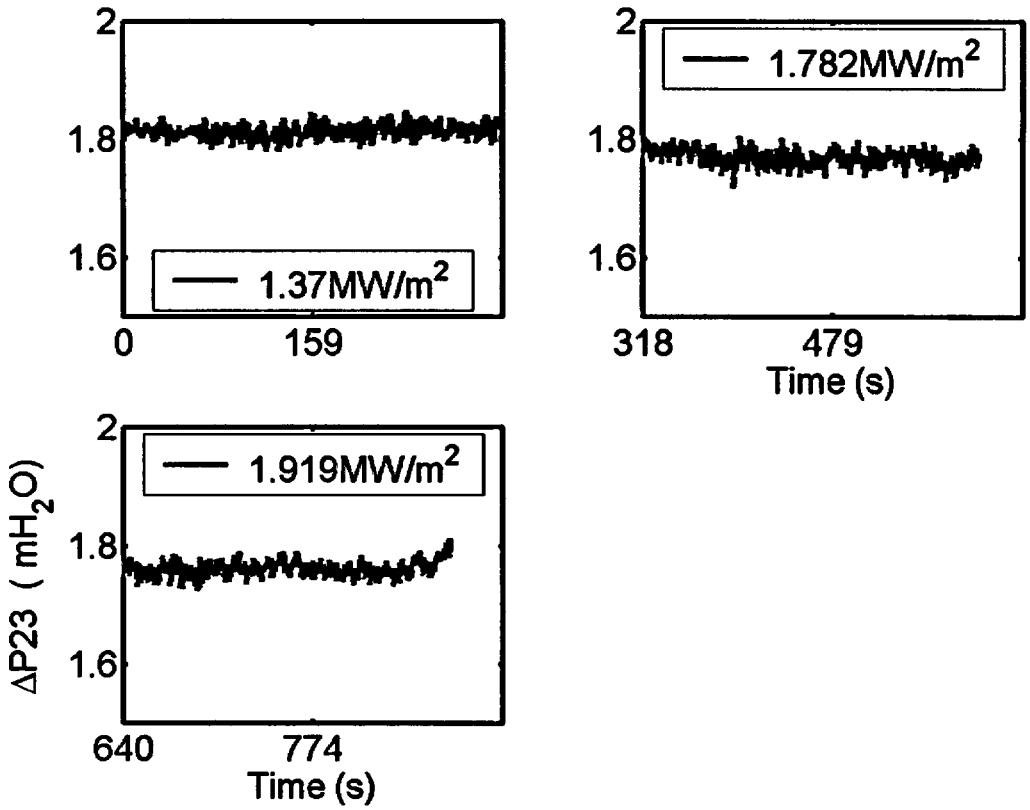

Figure A10.18. Differential Pressure ΔP23 at different heat fluxes.

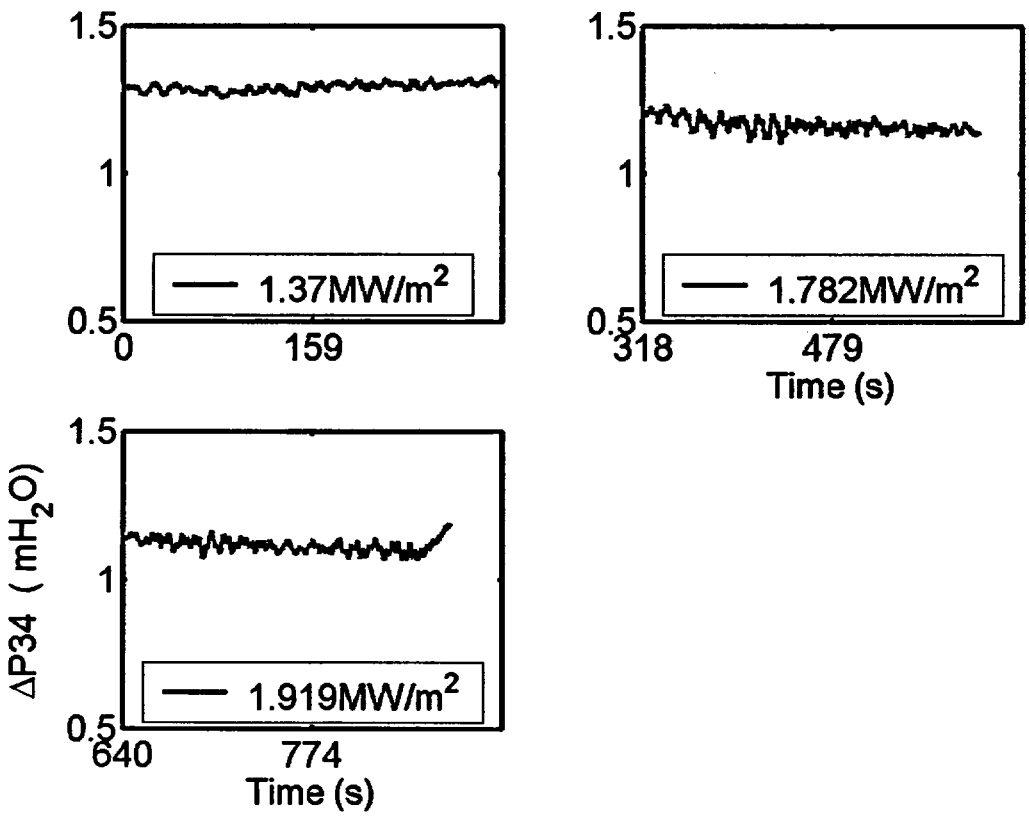

Figure A10.19. Differential Pressure ΔP34 at different heat fluxes.

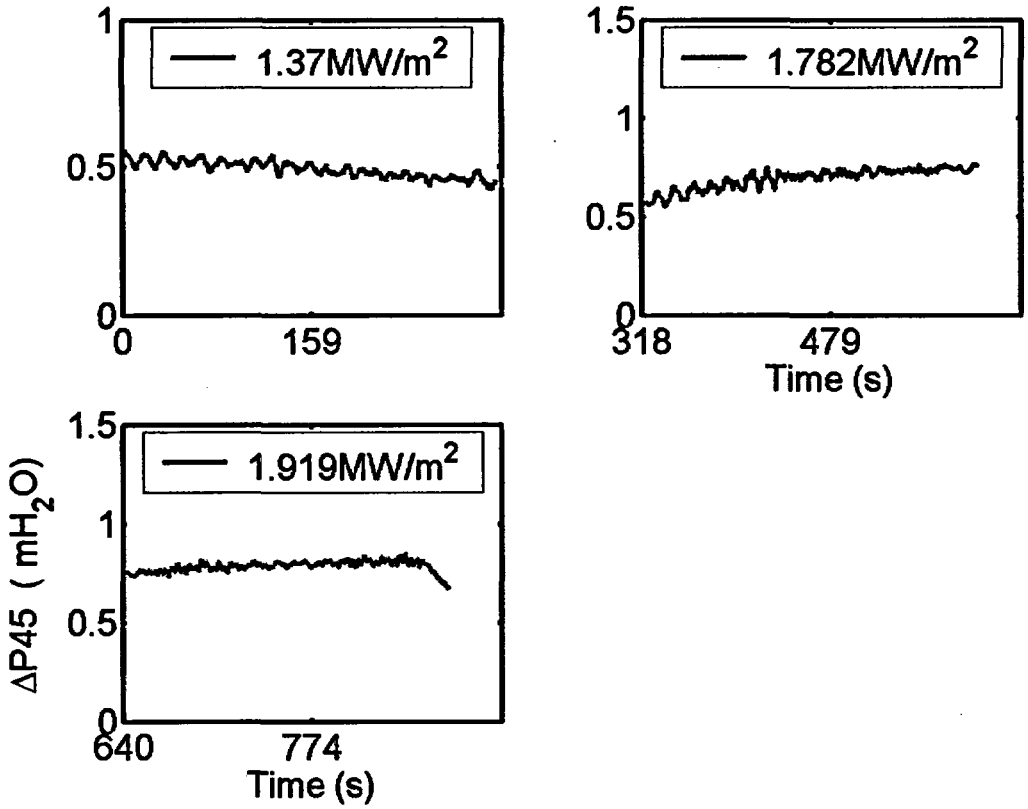

Figure A10.20. Differential Pressure ΔP45 at different heat fluxes.

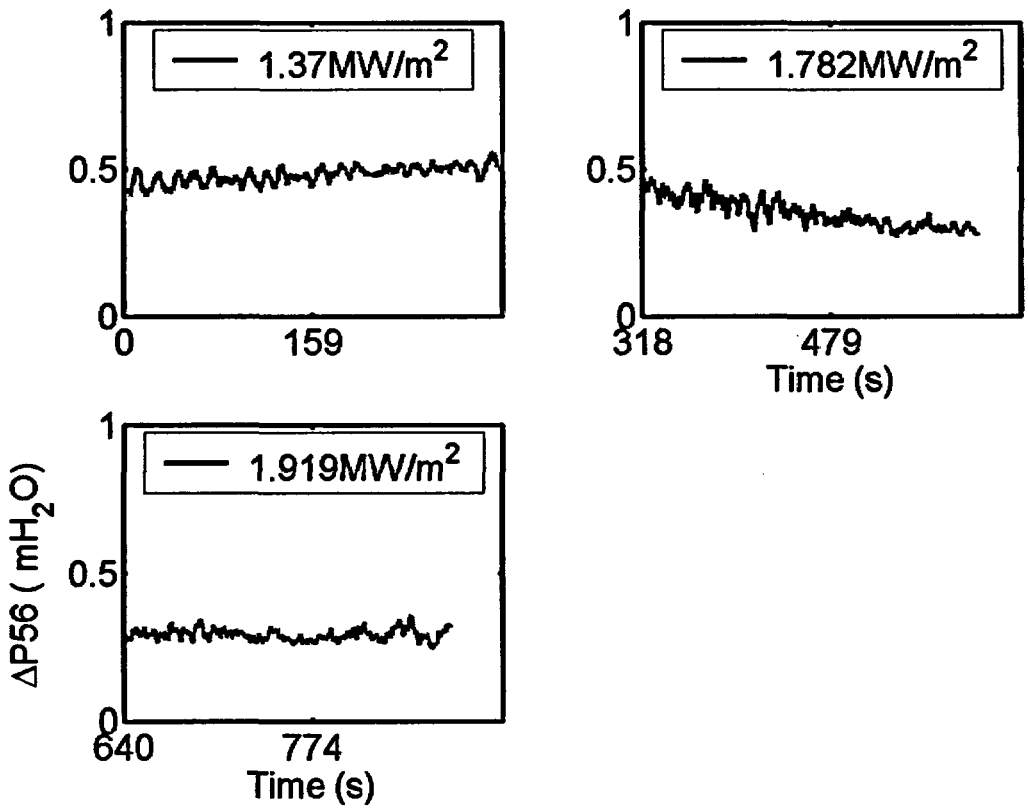

Figure A10.21. Differential Pressure ΔP56 at different heat fluxes.

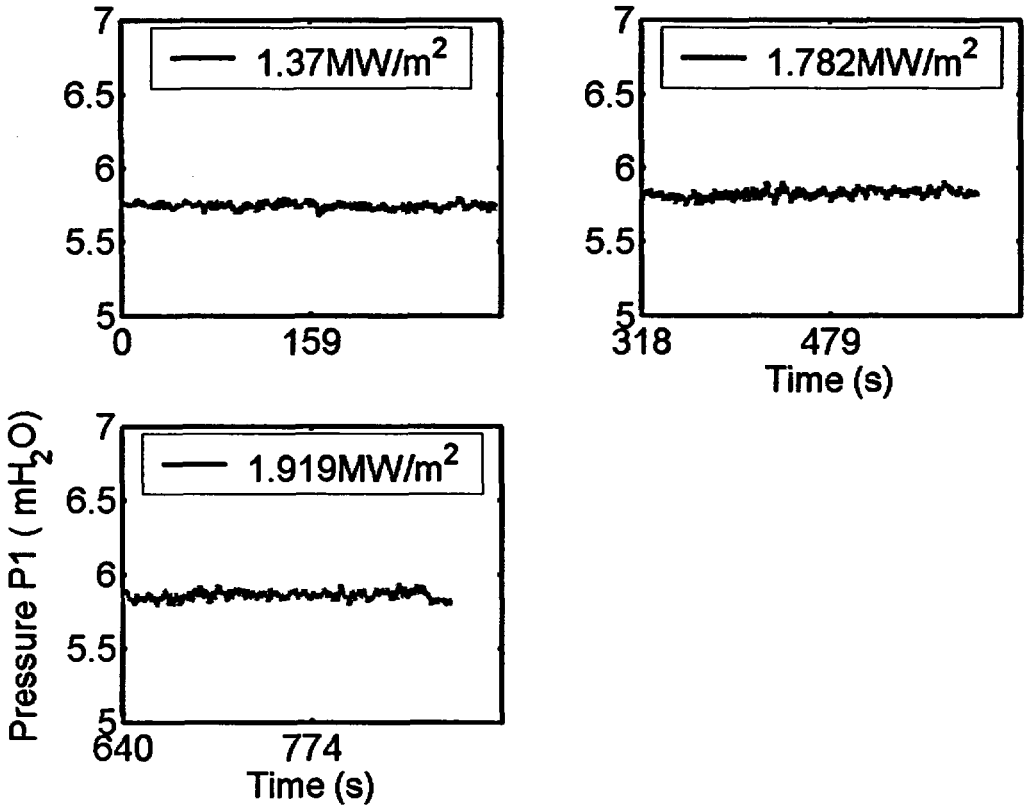

Figure A10.22. Pressure P1 at different heat fluxes.

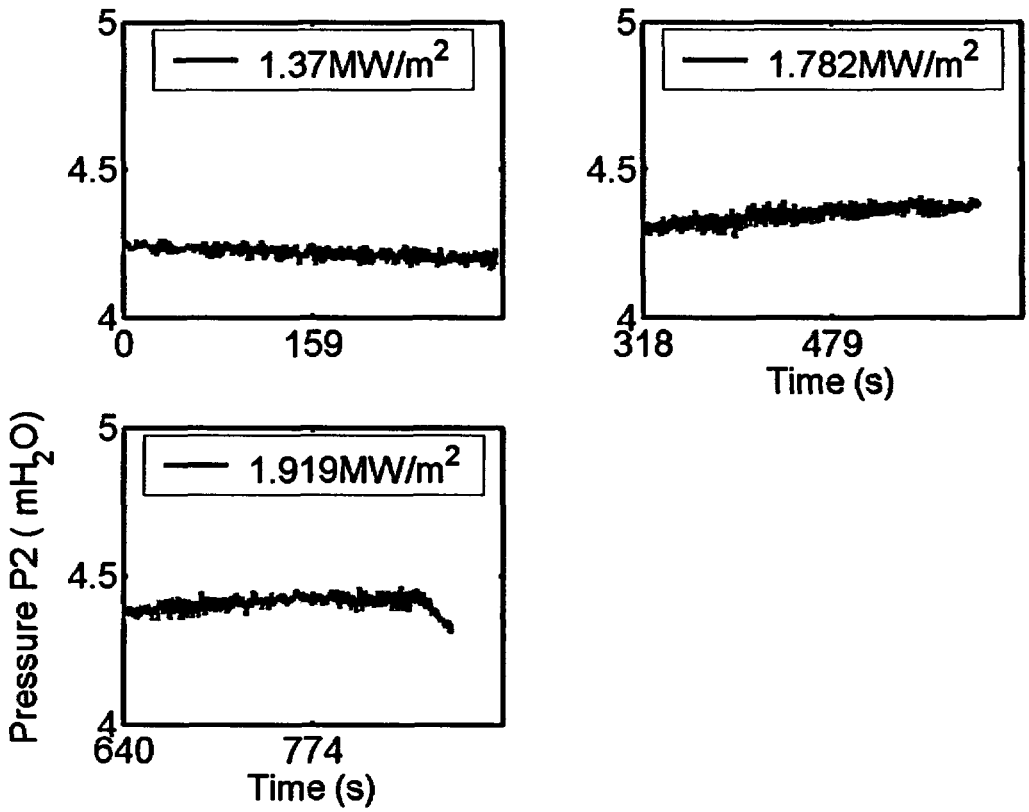

Figure A10.23. Pressure P2 at different heat fluxes.

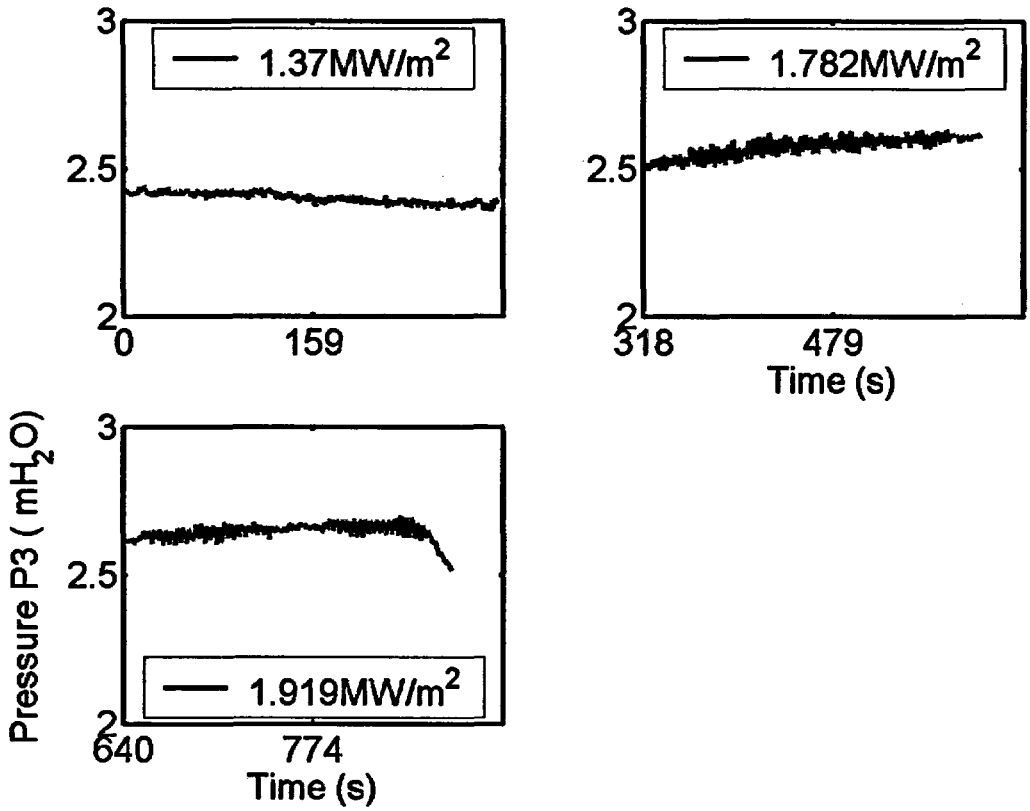

Figure A10.24. Pressure P3 at different heat fluxes.

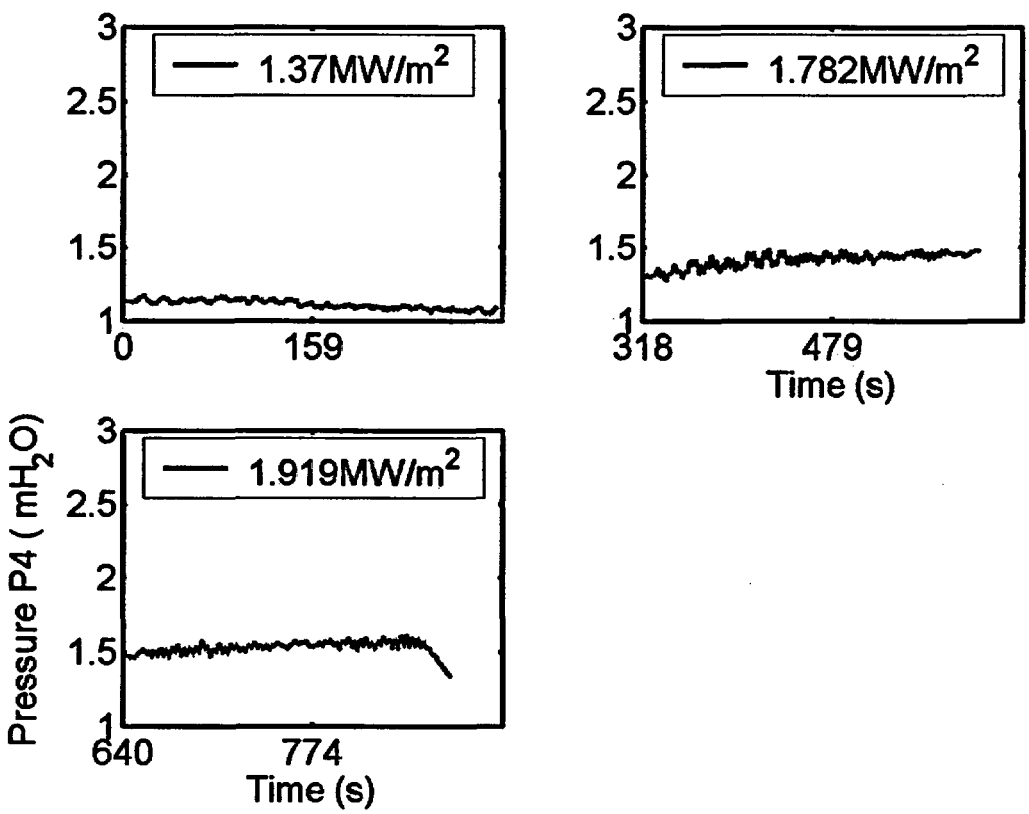

Figure 29.25. Pressure P4 at different heat fluxes.

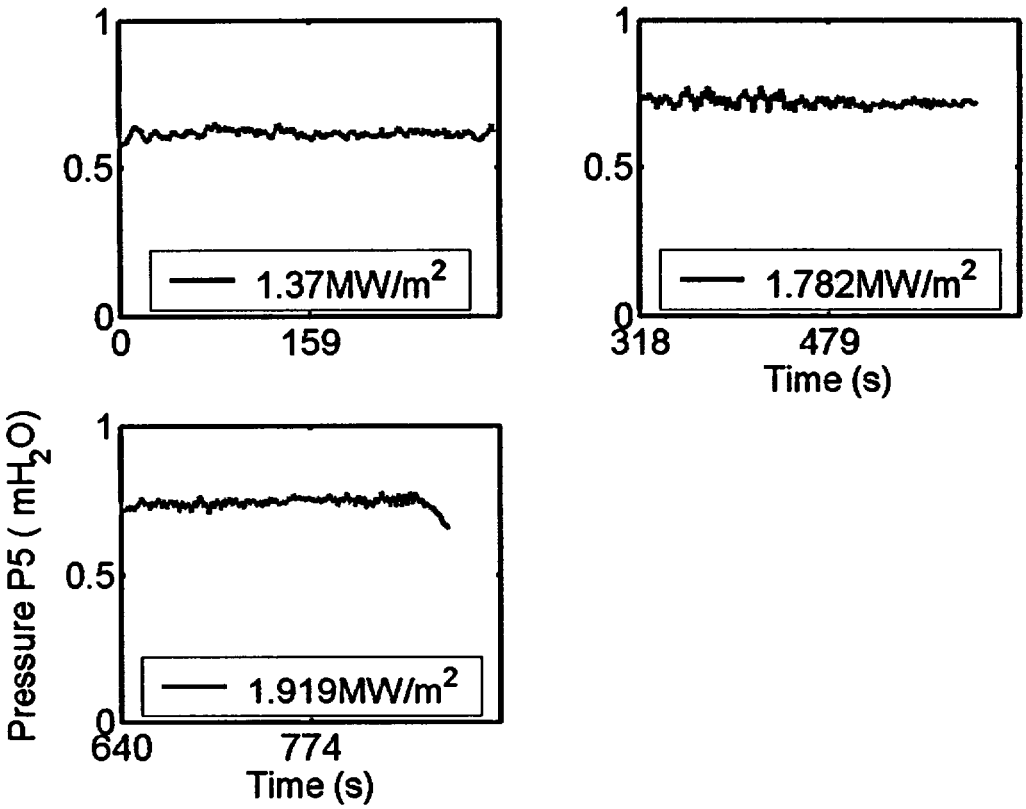

Figure A10.26. Pressure P5 at different heat fluxes.

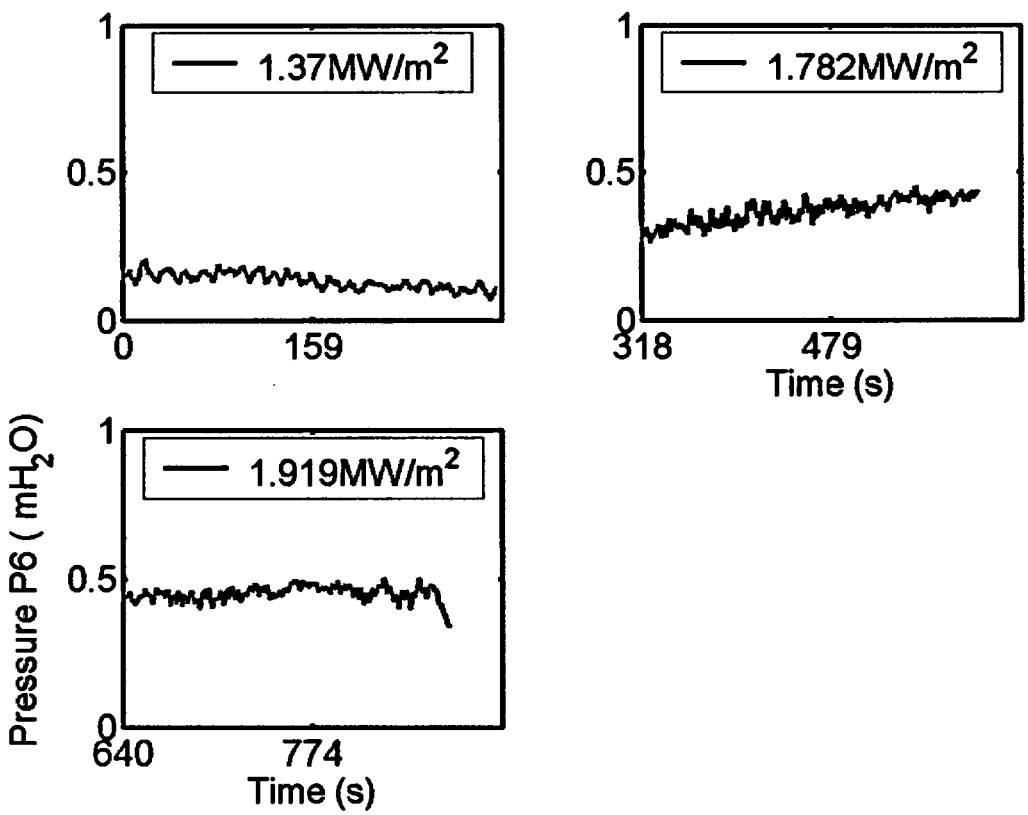

Figure A10.27. Pressure P6 at different heat fluxes.

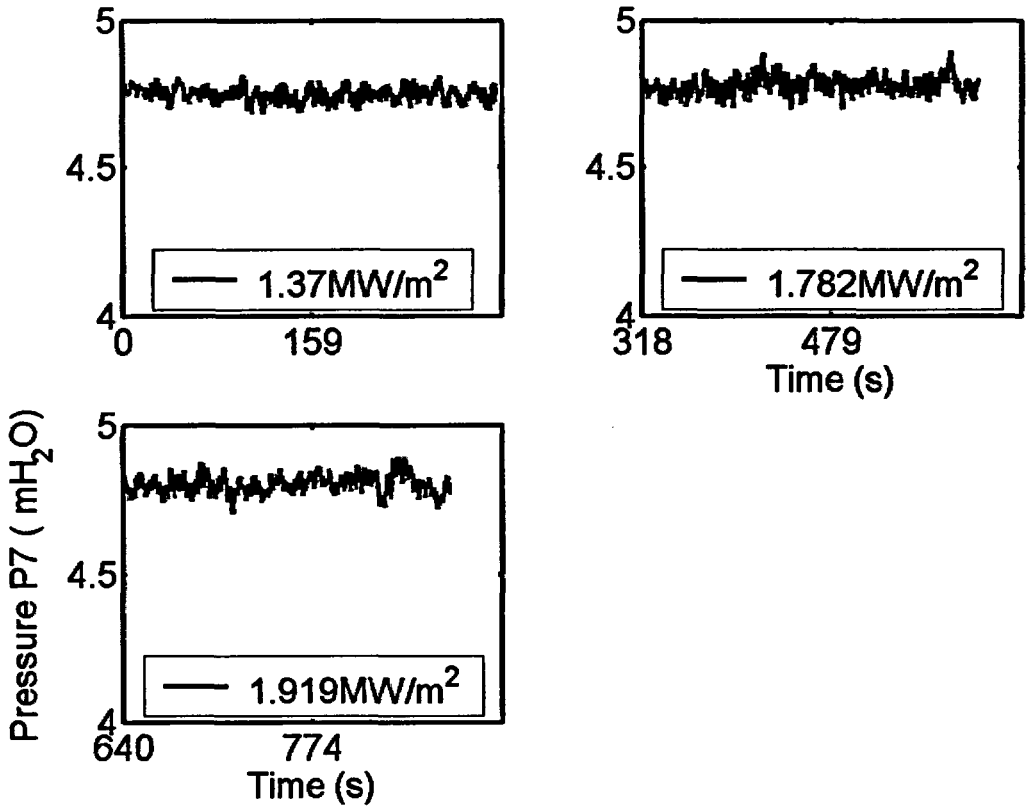

Figure A10.28. Pressure P7 at different heat fluxes.

ID #11

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T08A	987	RA3	10	B	12/19/2002/16:30

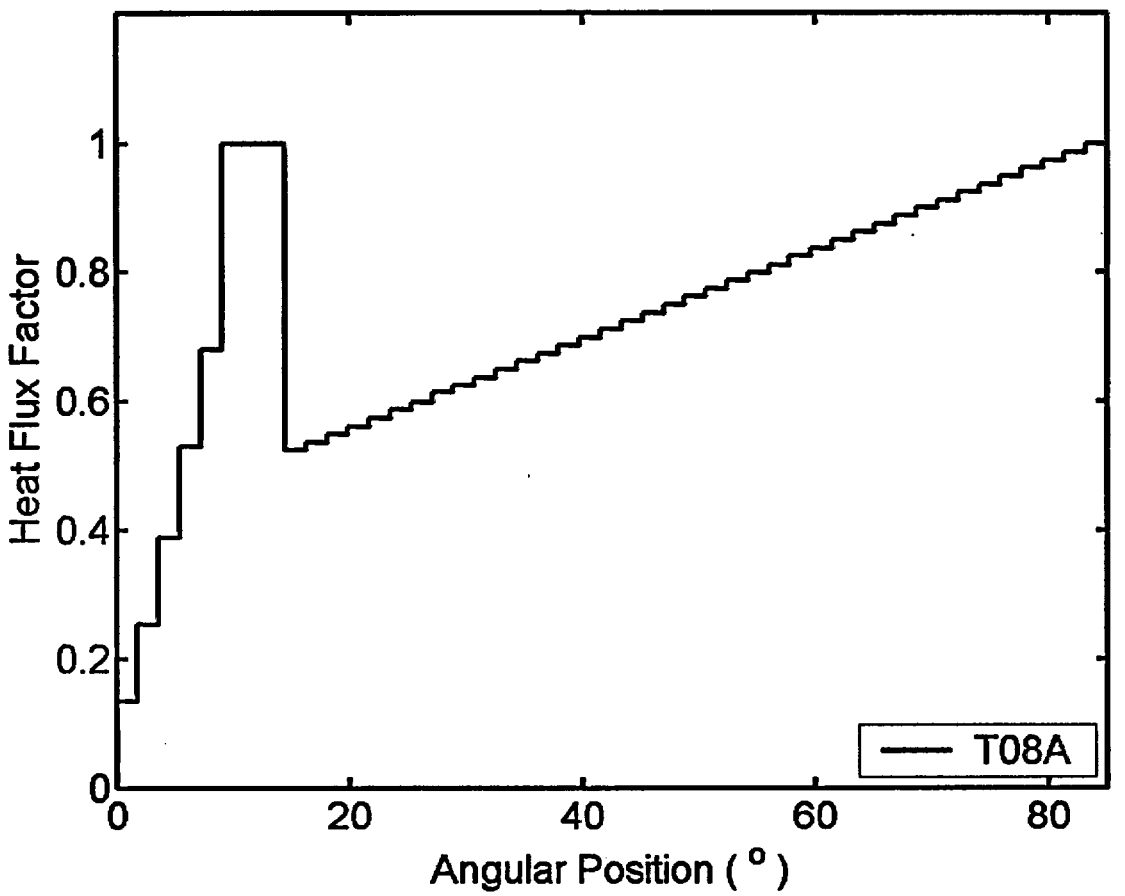

Figure A11.1. Power shape.

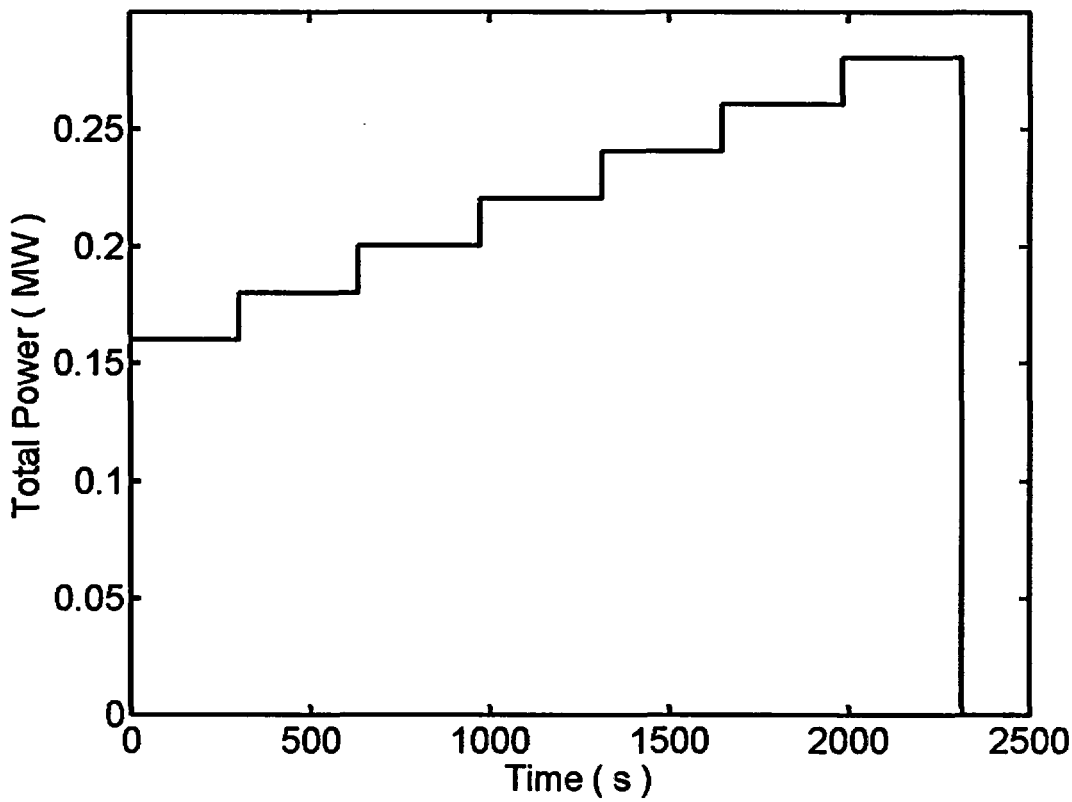

Figure A11.2. Total input power history.

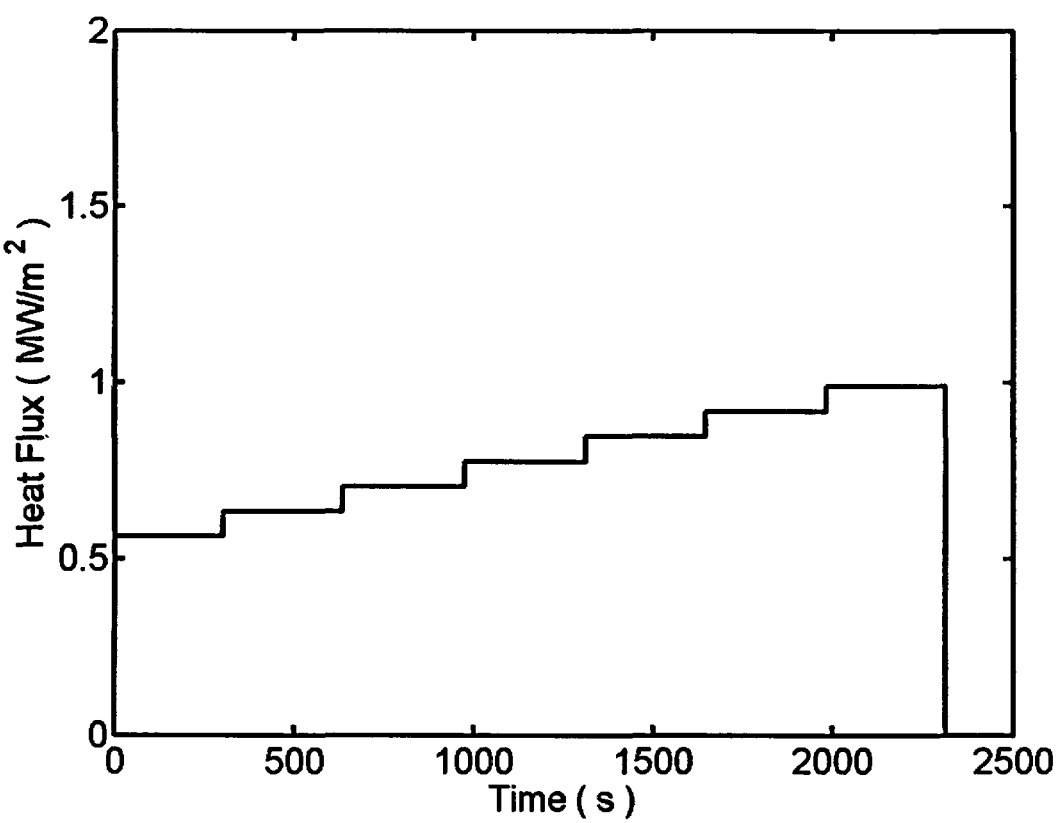

Figure A11.3. Heat flux history.

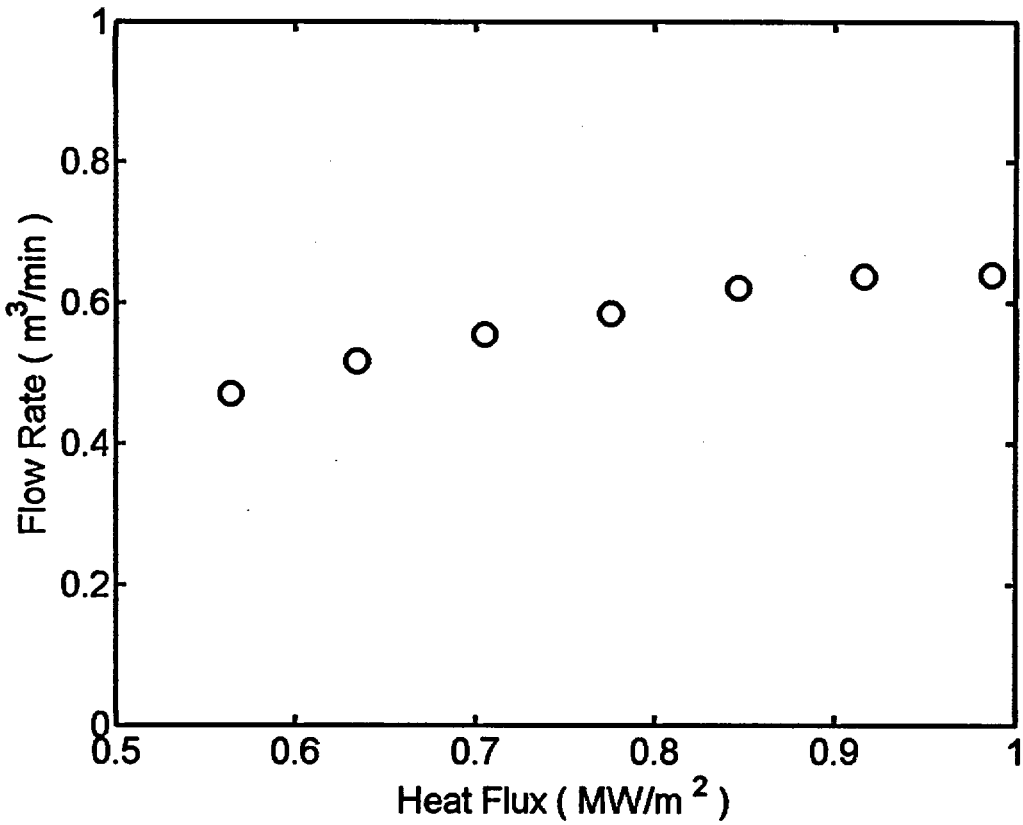

Figure A11.4. Flow rate vs. heat fluxes.

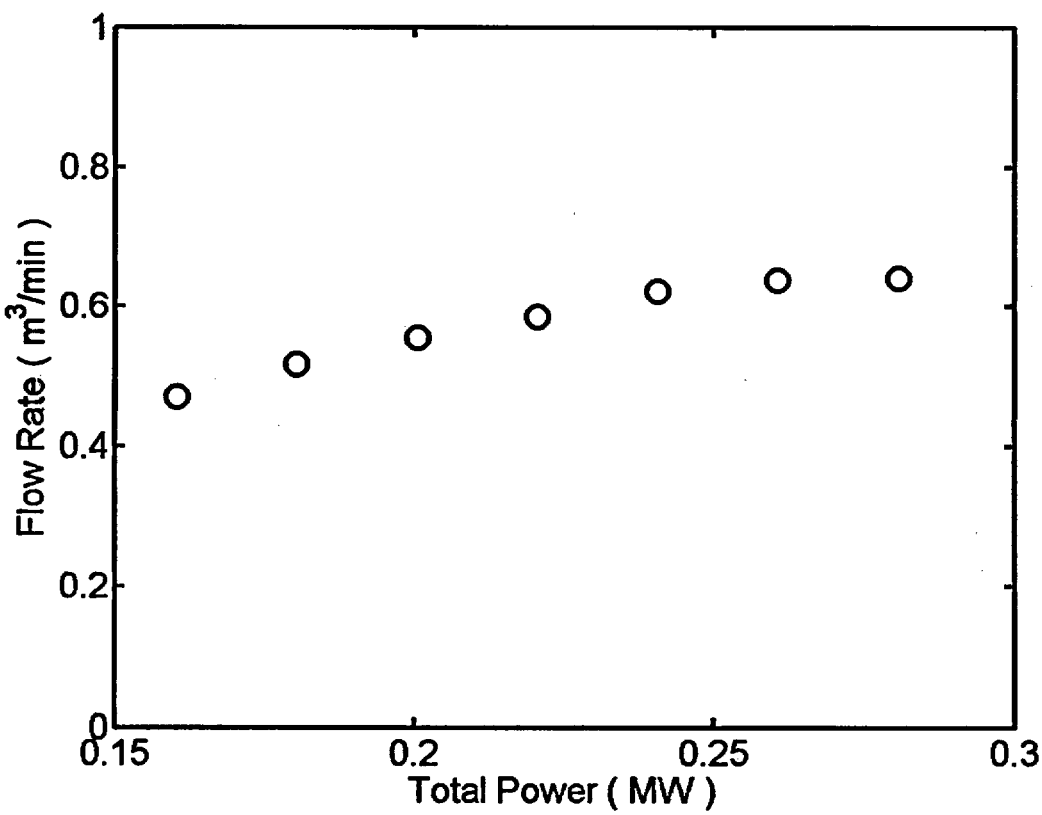

Figure A11.5. Flow rate vs. total input power.

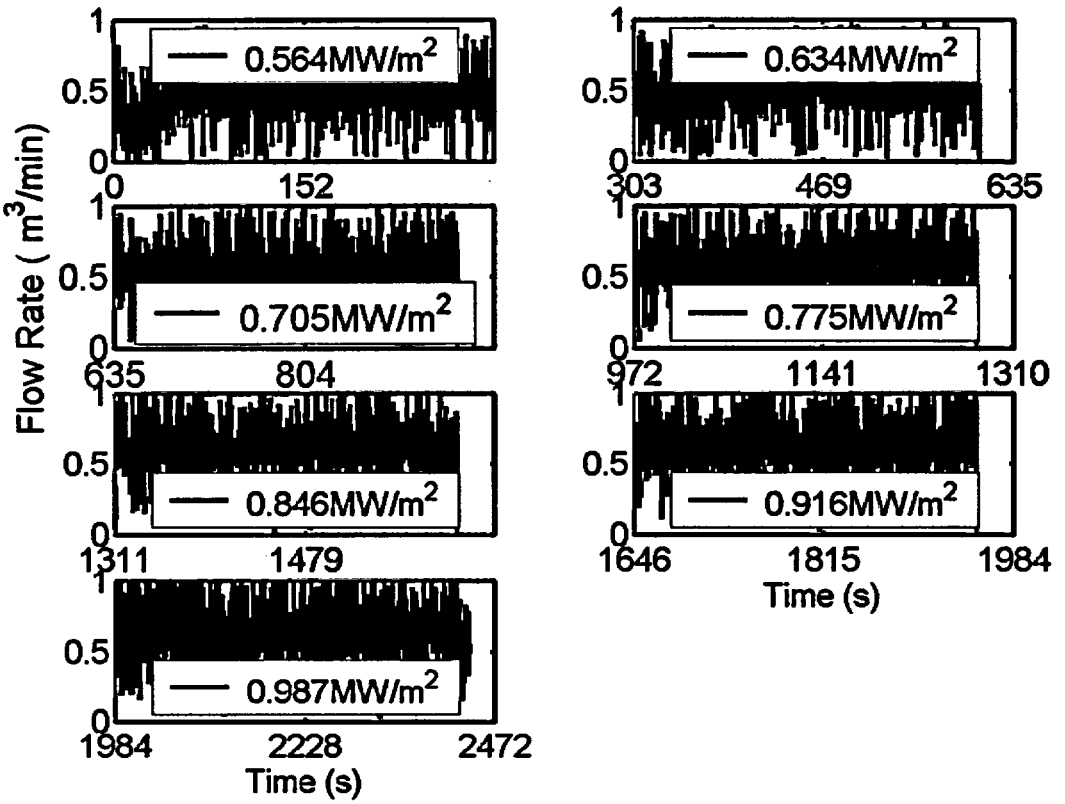

Figure A11.6. Flow rates at different heat fluxes.

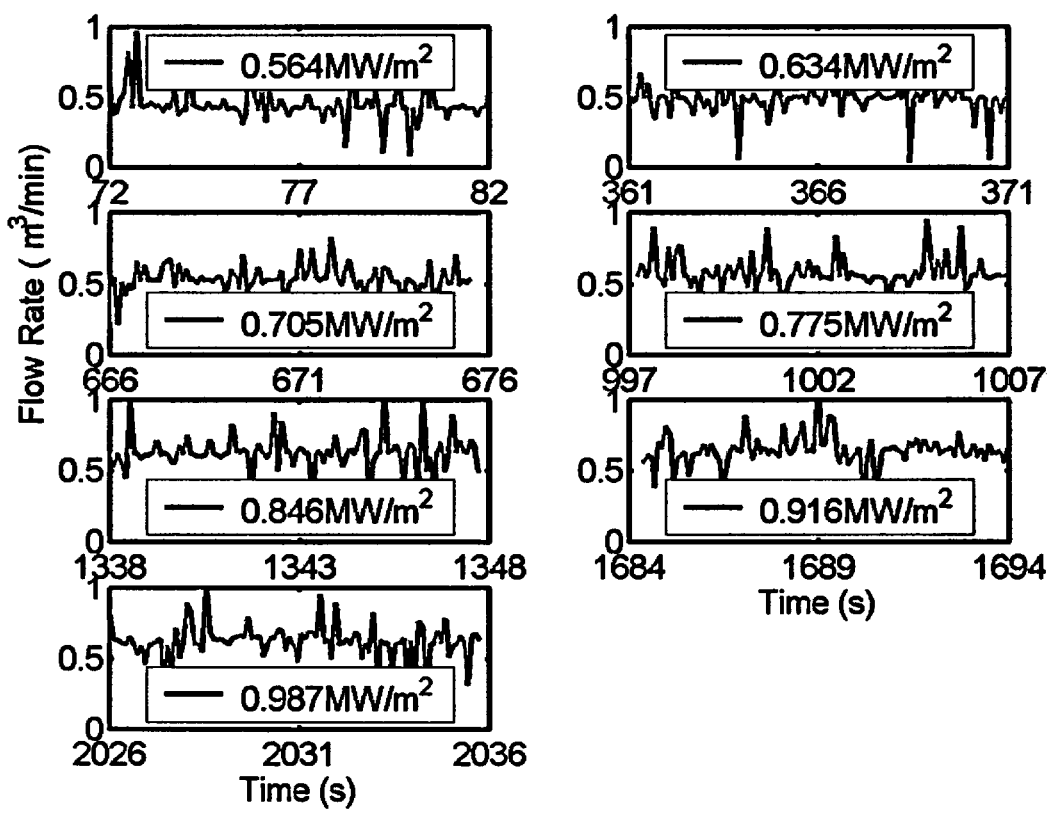

Figure A11.7. Flow rates at different heat fluxes at selected time intervals.

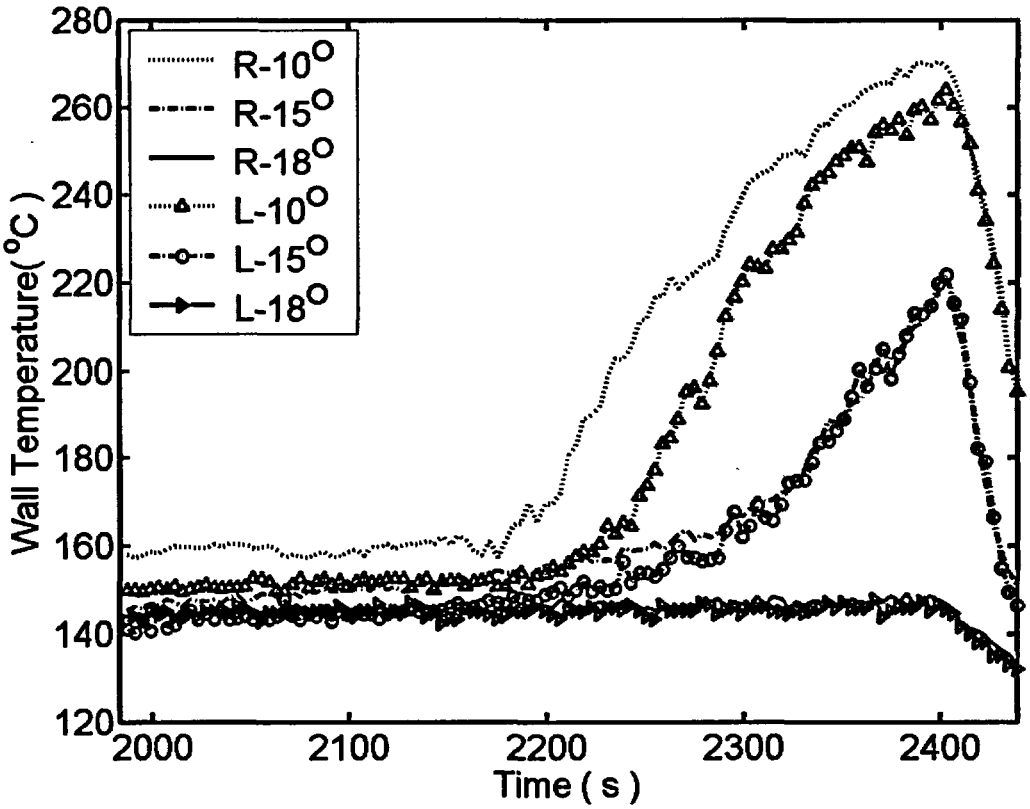

Figure A11.8. Temperature history at CHF.

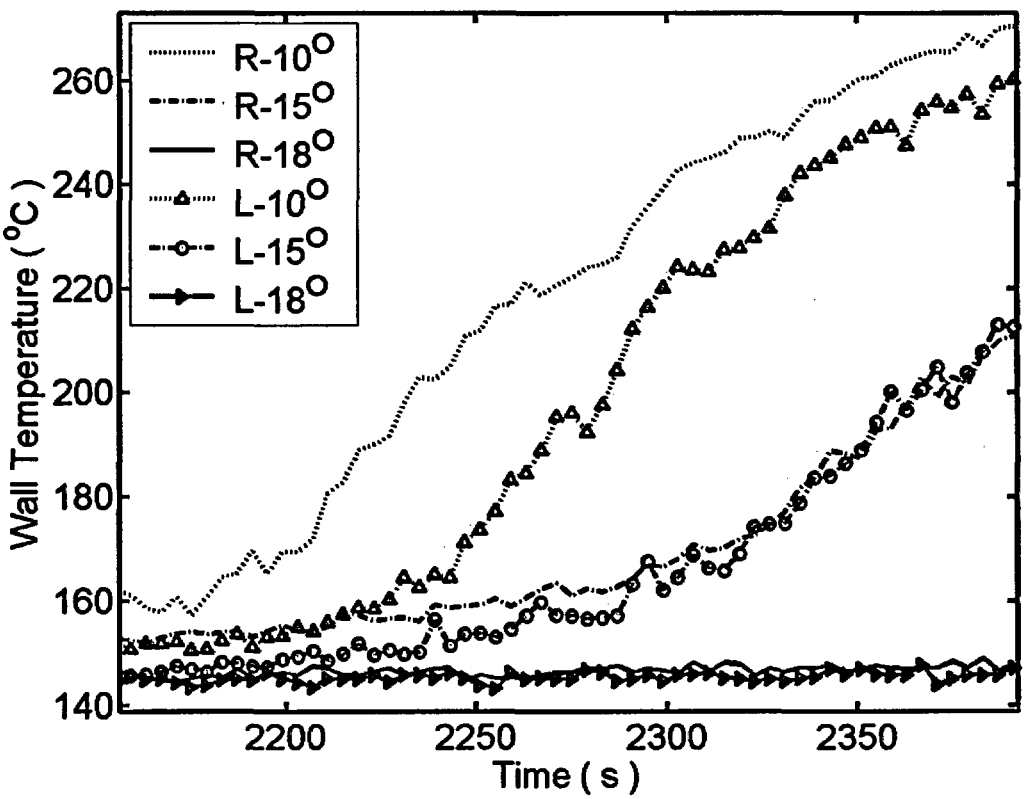

Figure A11.9. Temperature history at CHF in detail.

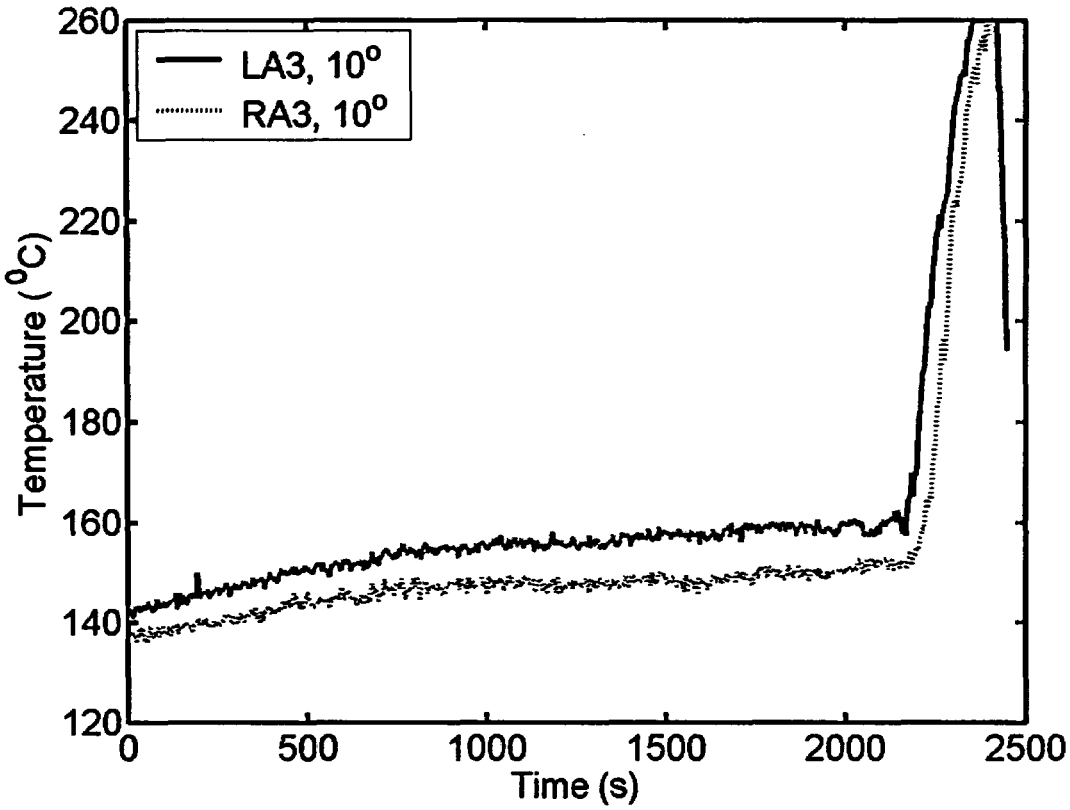

Figure A11.10. Wall temperature history measured by two thermocouples LA3 and RA3.

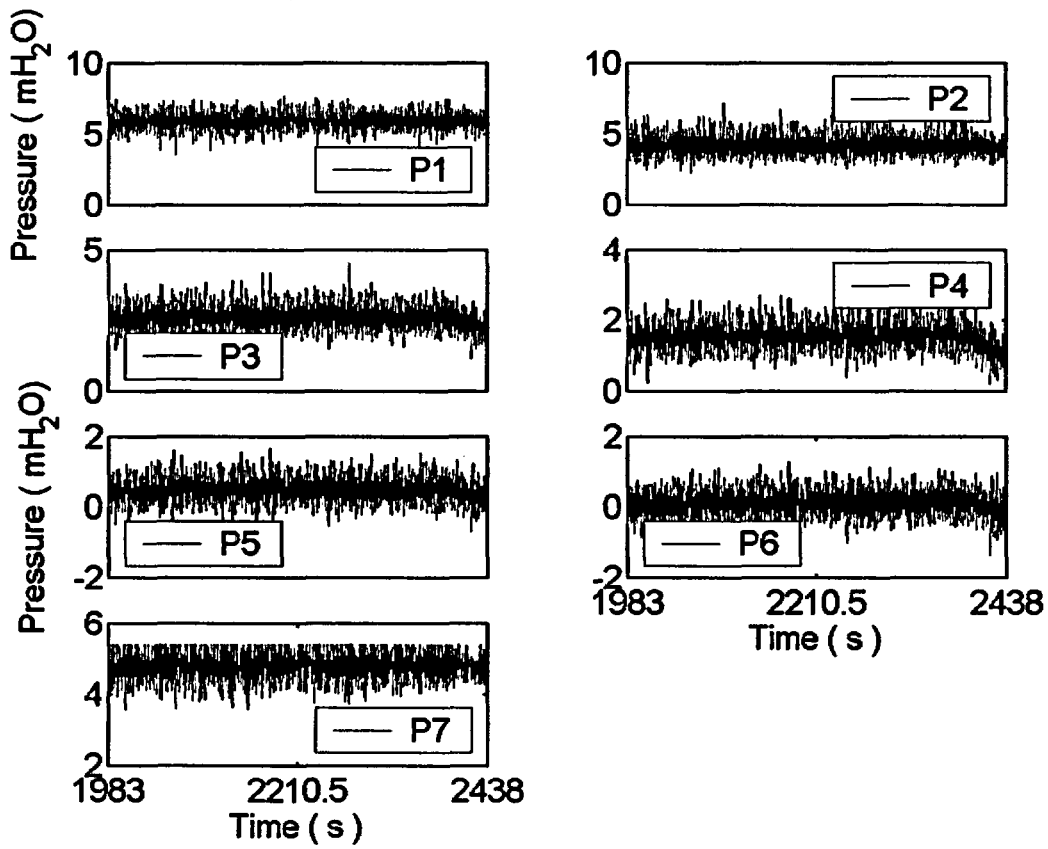

Figure A11.11. Pressure transducer data at q = 0.987 MW/m^2.

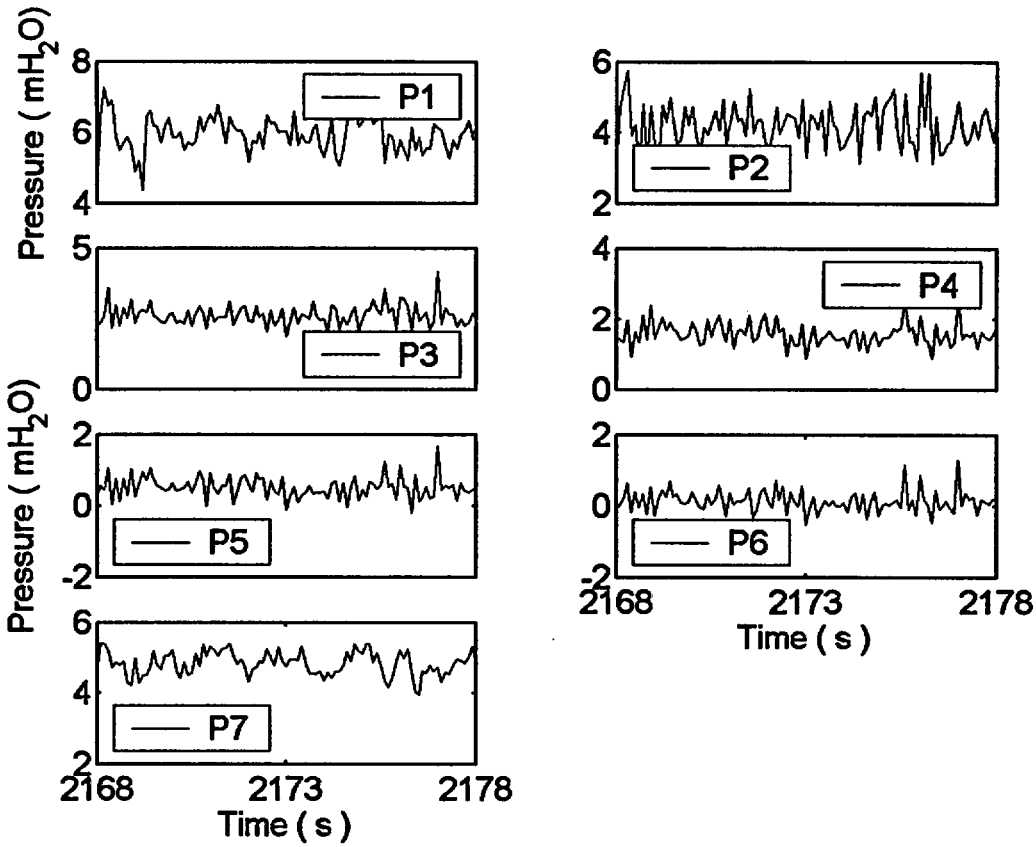

Figure A11.12. Pressure data in detail at q = 0.987 MW/m^2.

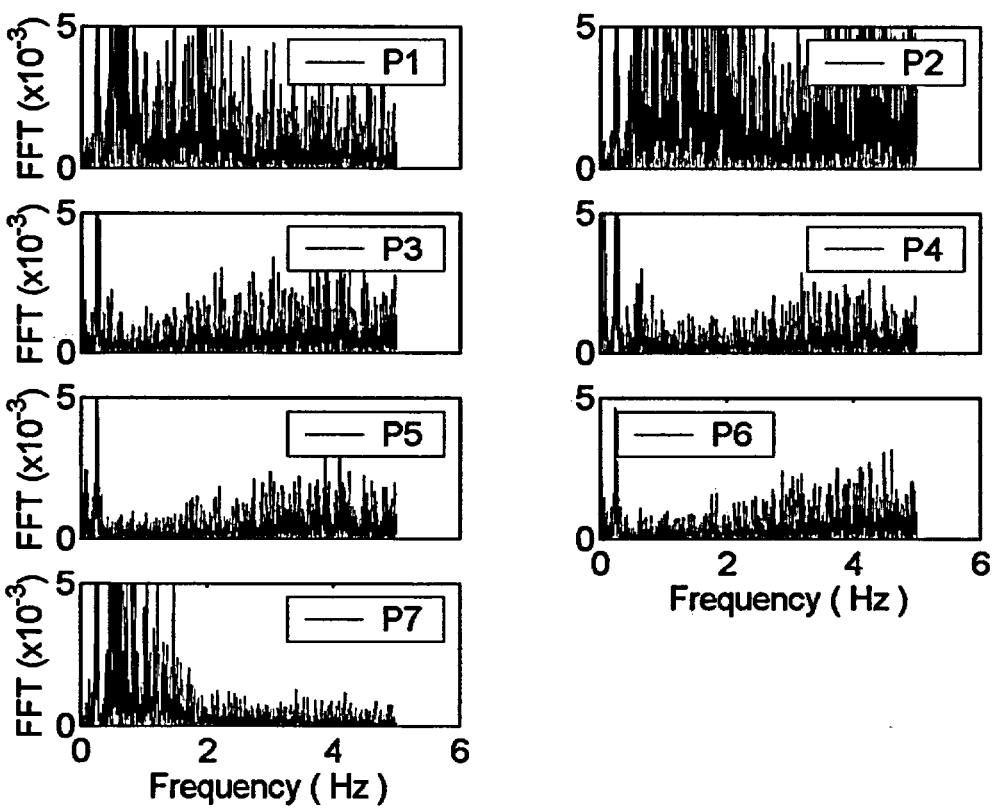

Figure A11.13. FFT of pressure time series at q = 0.987 MW/m^2.

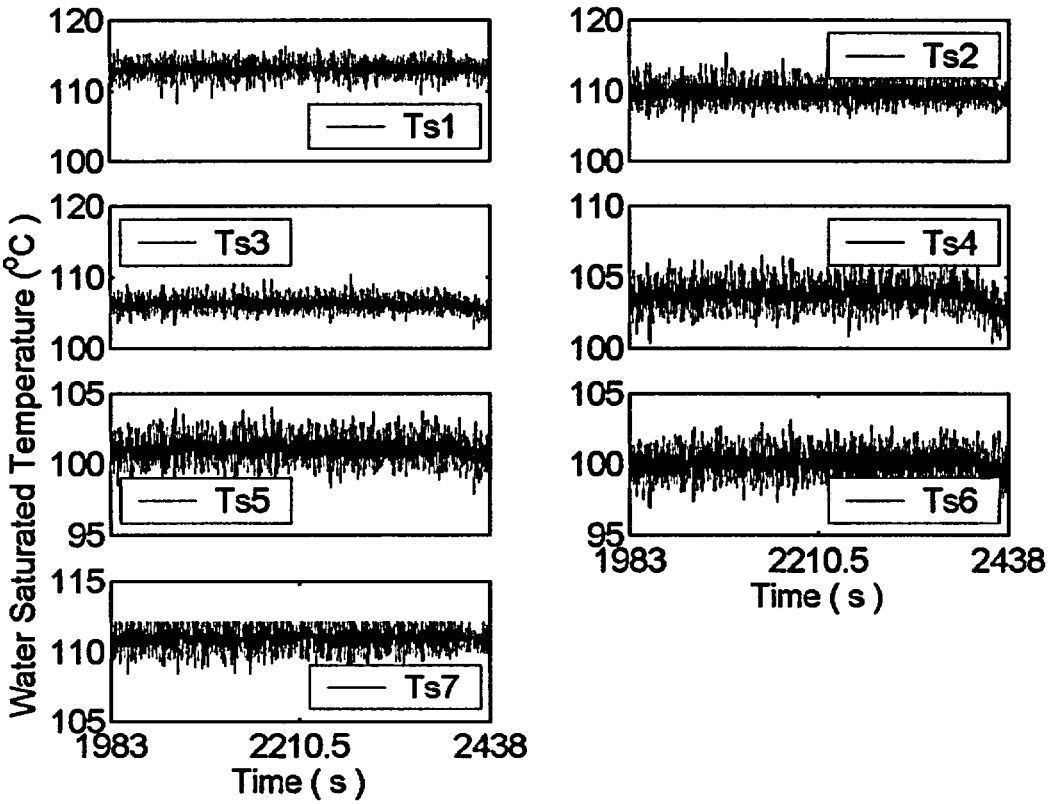

Figure A11.14. Water saturation temperature calculated from local pressure data at q = 0.987 MW/m^2.

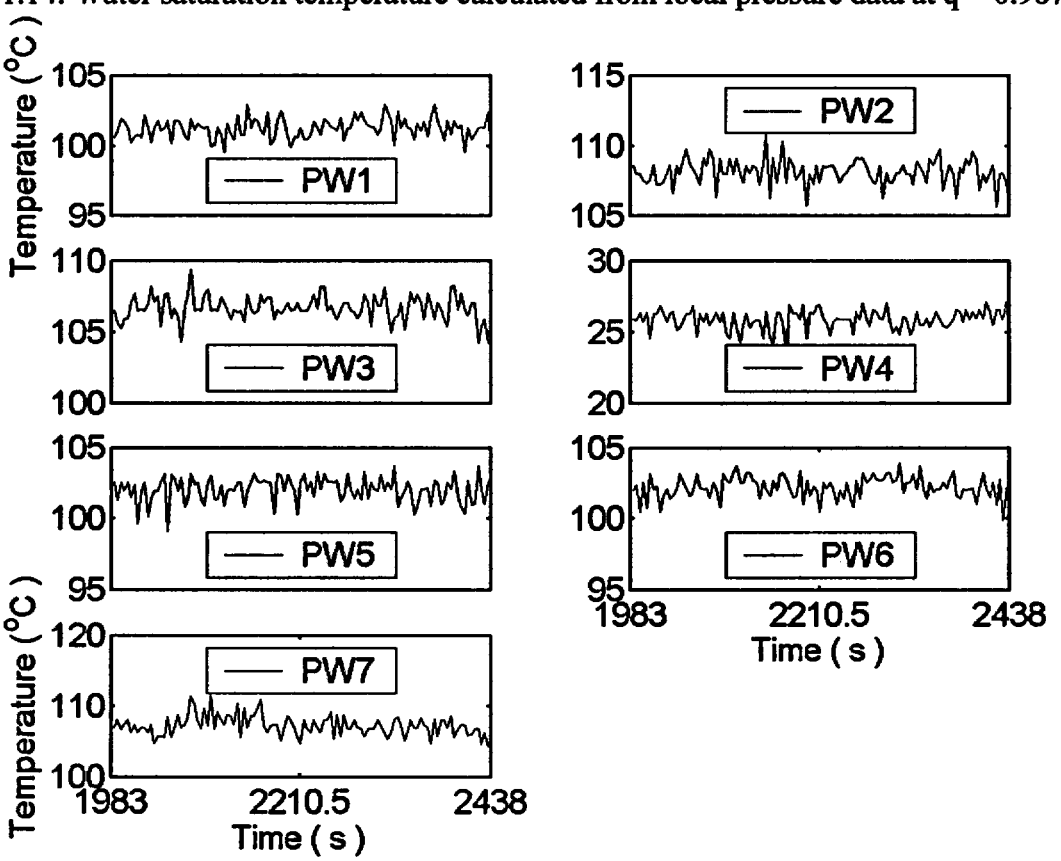

Figure A11.15. Water temperature measured at location of pressure transducer at q = 0.987 MW/m^2.

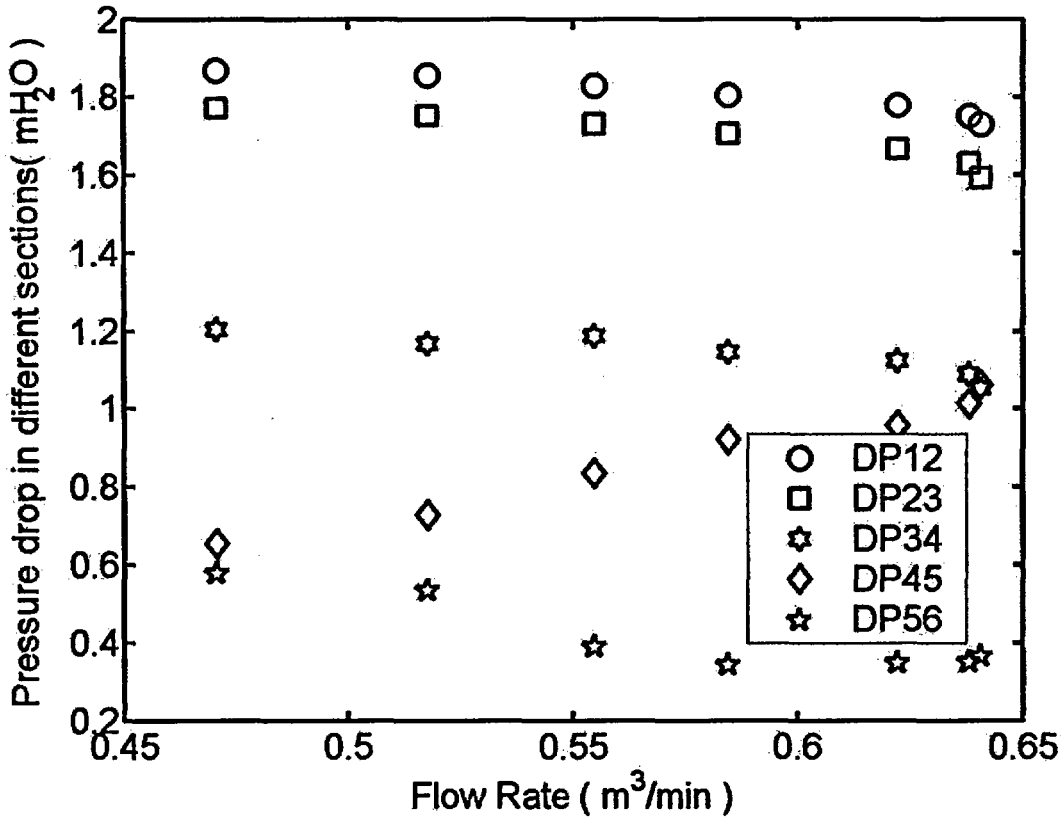

Figure A11.16. Pressure drop vs. flow rate at different heat fluxes.

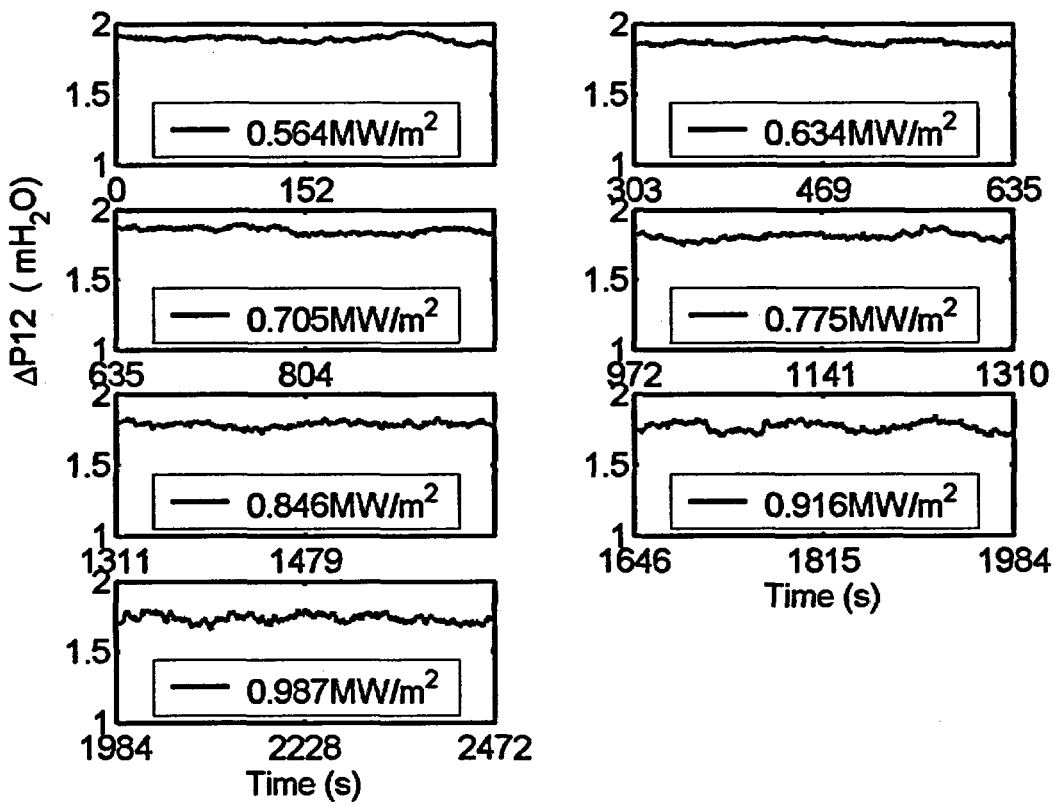

Figure A11.17. Differential Pressure ΔP12 at different heat fluxes.

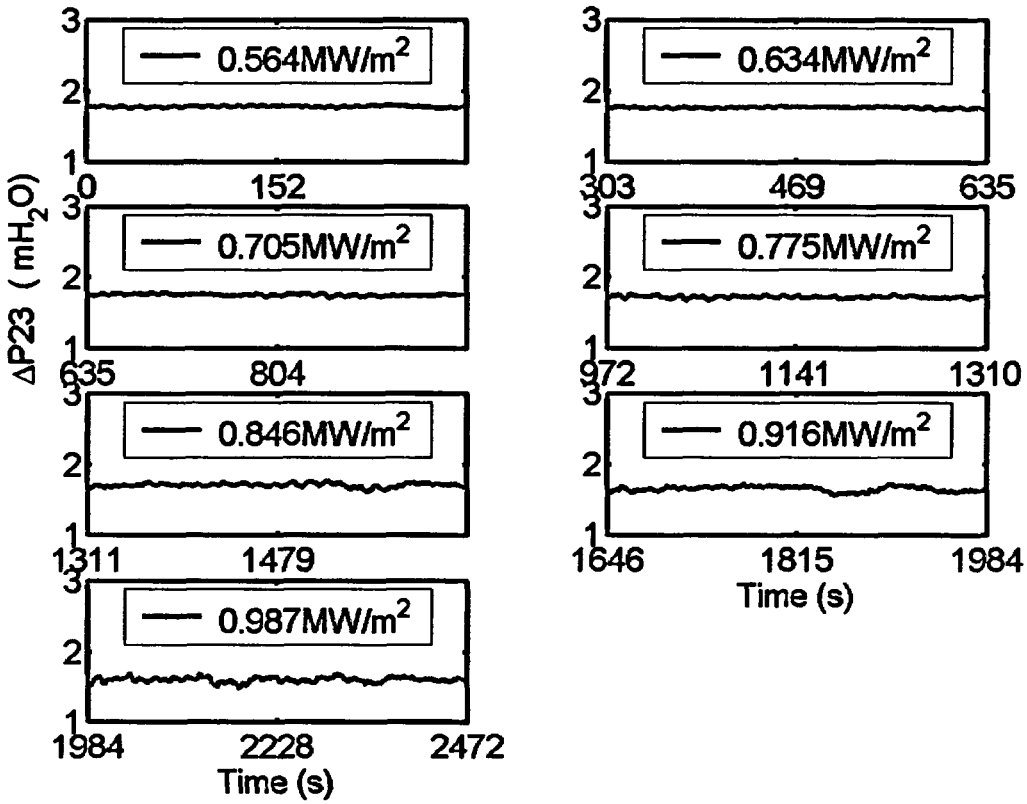

Figure A11.18. Differential Pressure ΔP23 at different heat fluxes.

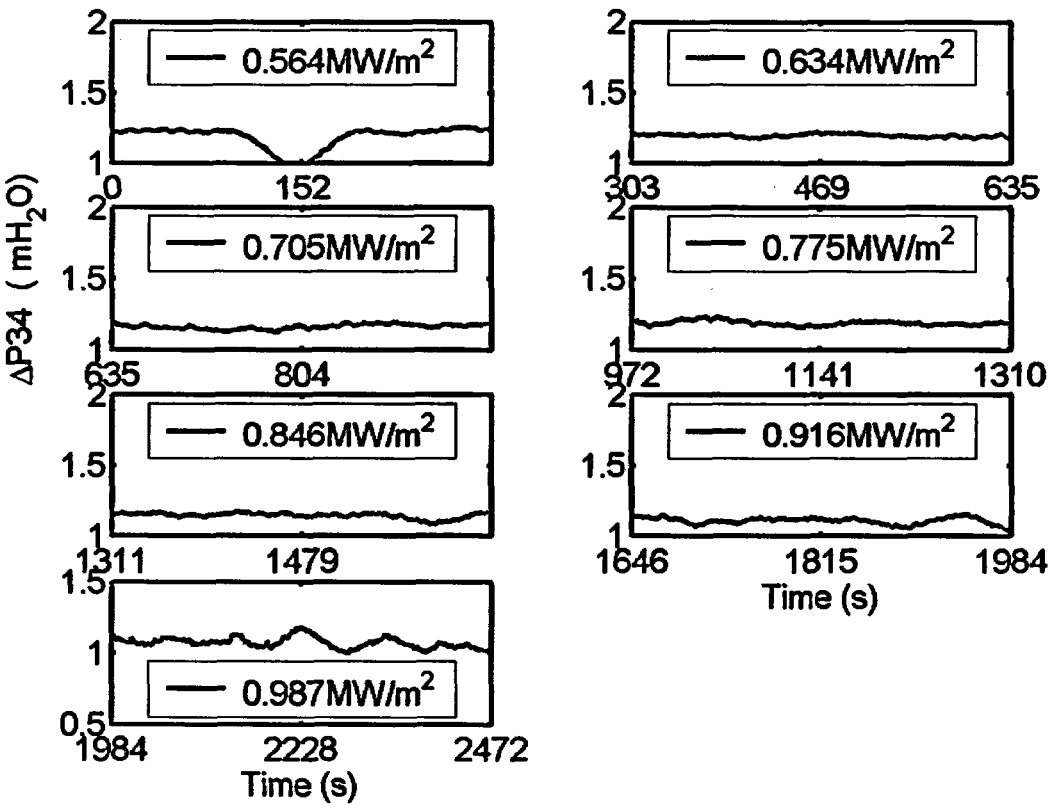

Figure A11.19. Differential Pressure ΔP34 at different heat fluxes.

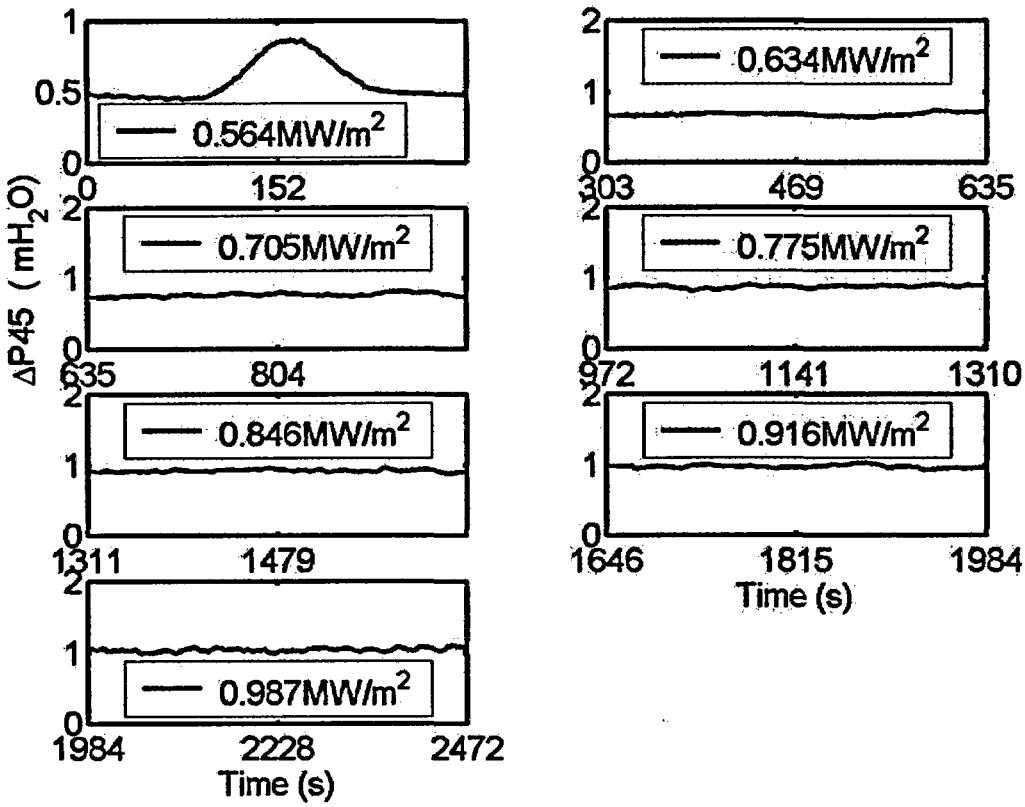

Figure A11.20. Differential Pressure ΔP45 at different heat fluxes.

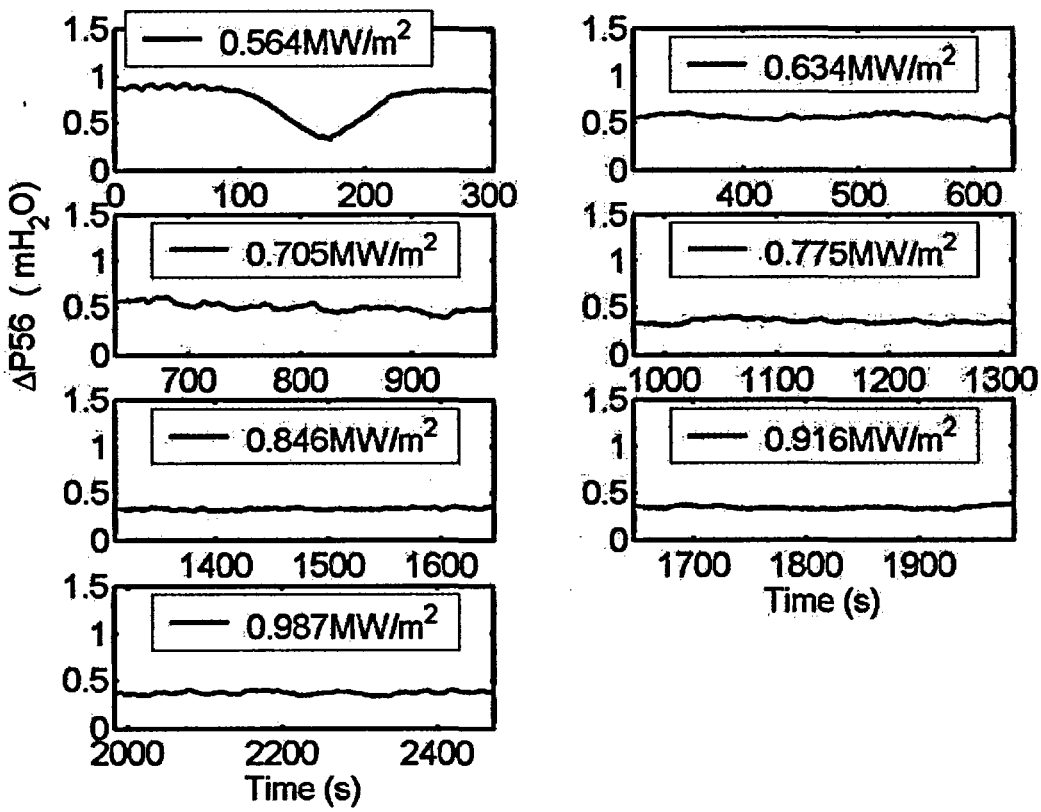

Figure A11.21. Differential Pressure ΔP56 at different heat fluxes.

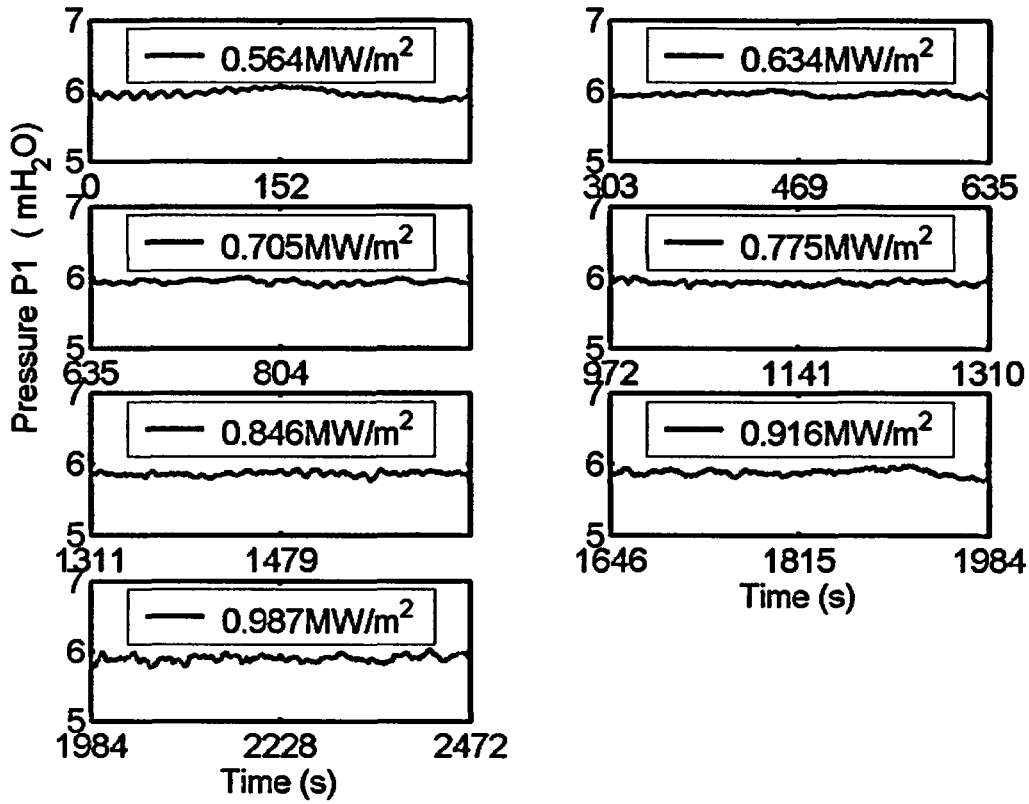

Figure A11.22. Pressure P1 at different heat fluxes.

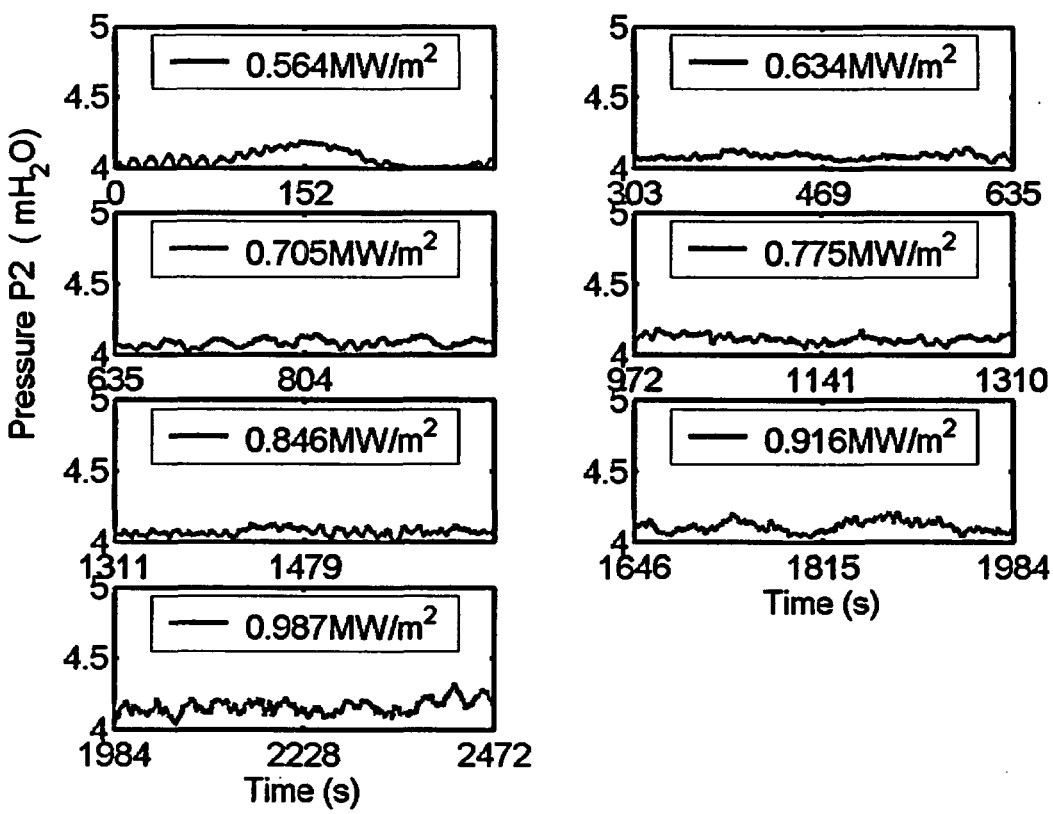

Figure A11.23. Pressure P2 at different heat fluxes.

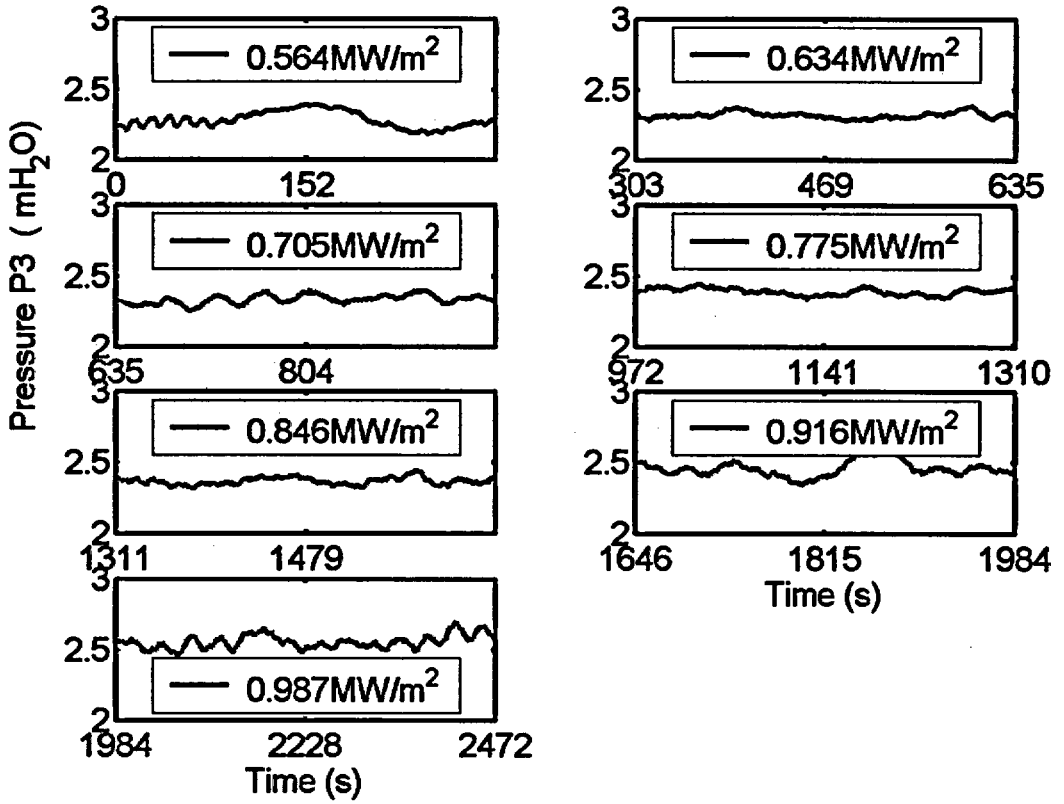

Figure A11.24. Pressure P3 at different heat fluxes.

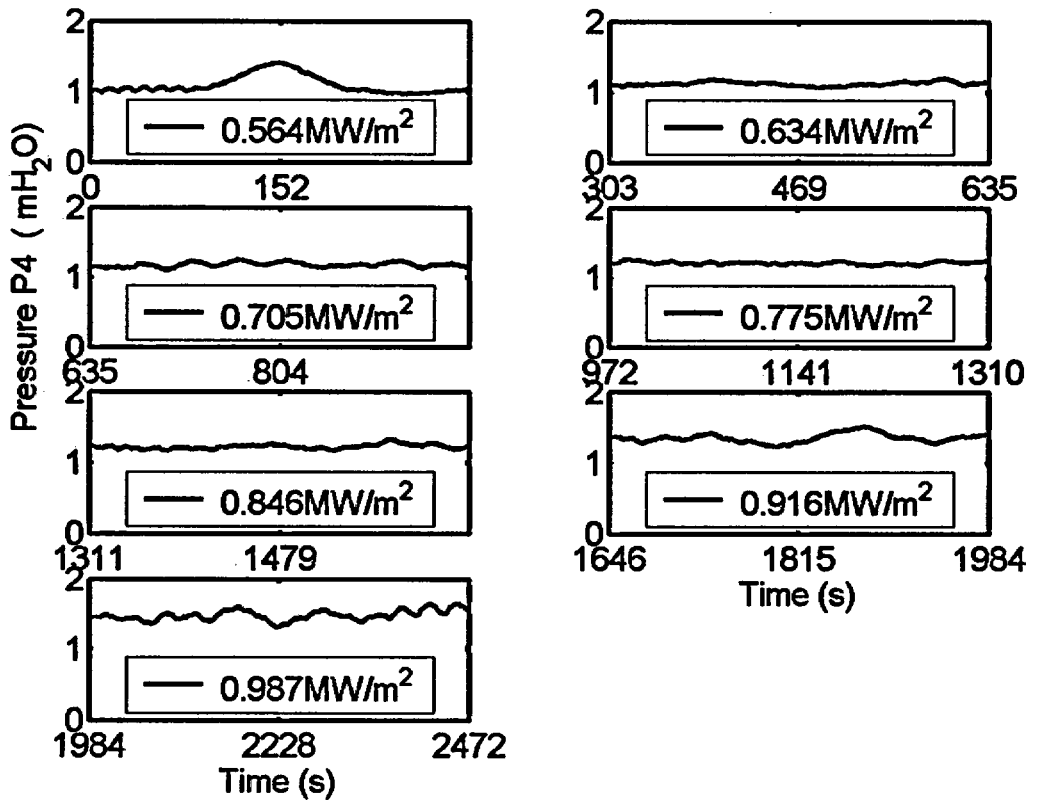

Figure A11.25. Pressure P4 at different heat fluxes.

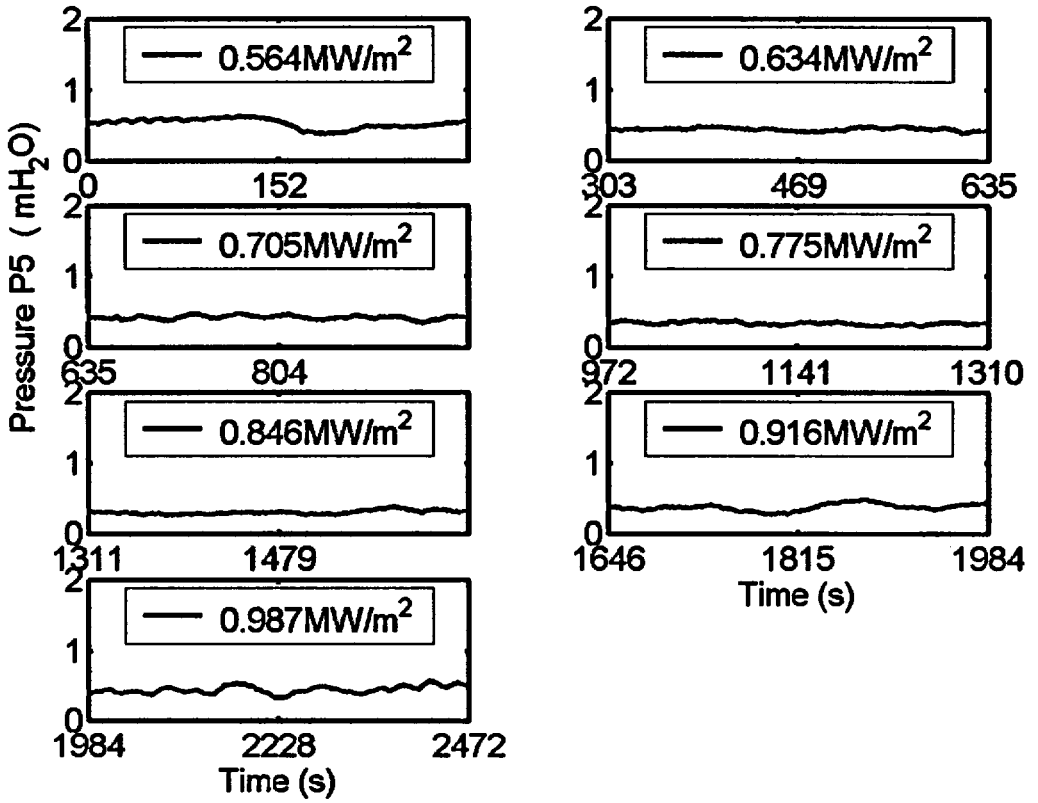

Figure A11.26. Pressure P5 at different heat fluxes.

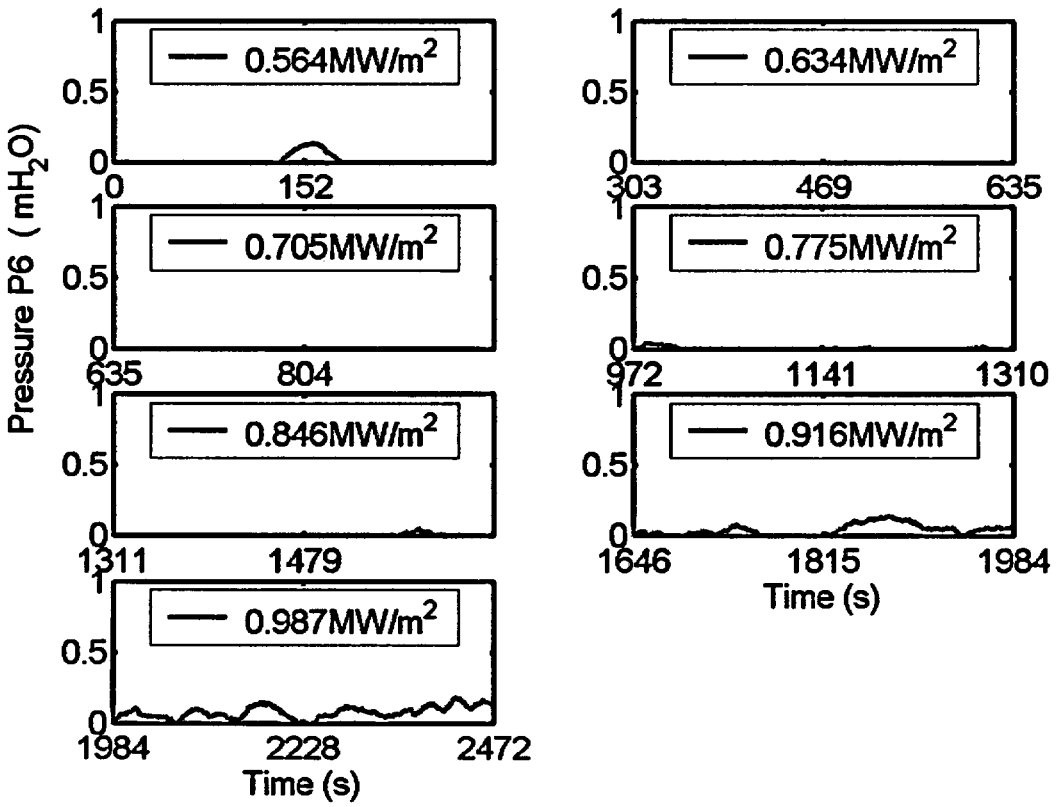

Figure A11.27. Pressure P6 at different heat fluxes.

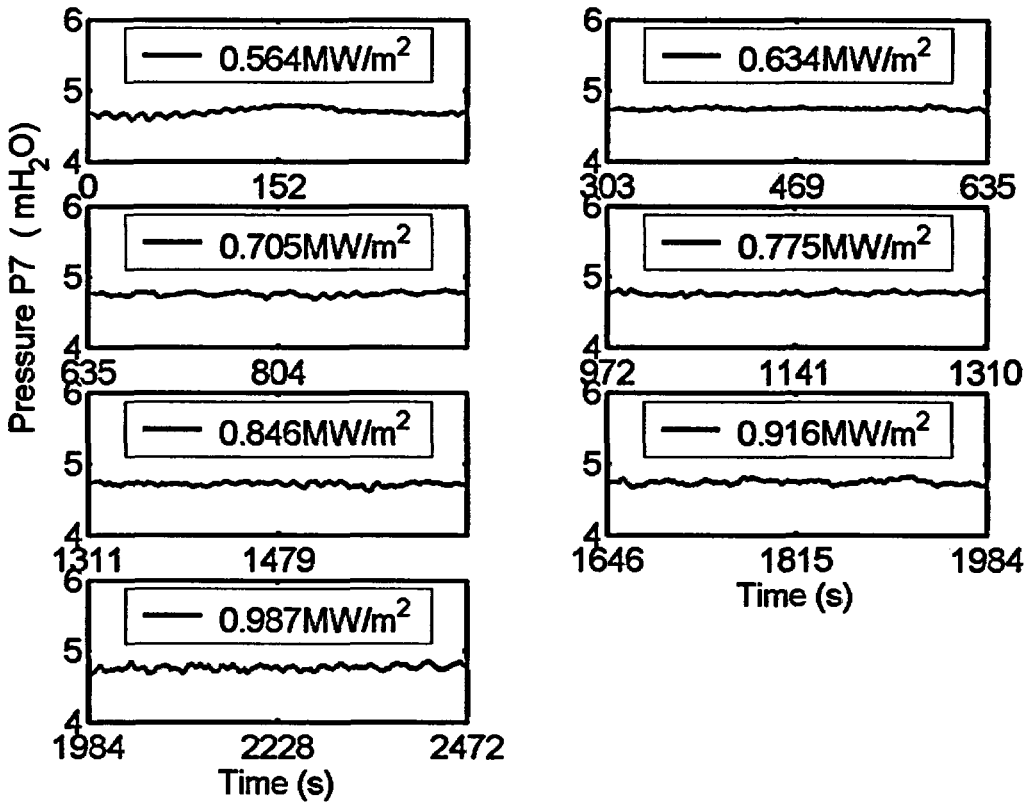

Figure A11.28. Pressure P7 at different heat fluxes.

ID #12

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T08A	930	RC8	83	C	01/03/2003/15:20

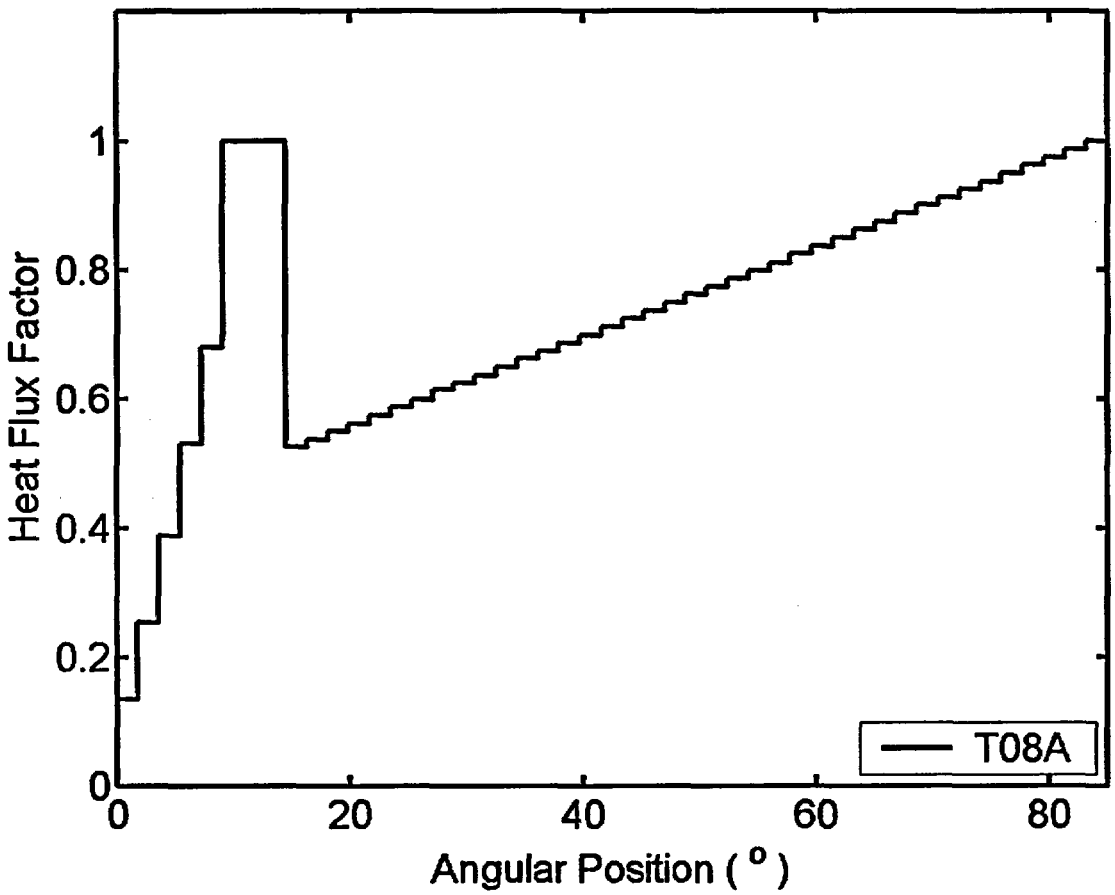

Figure A12.1. Power shape.

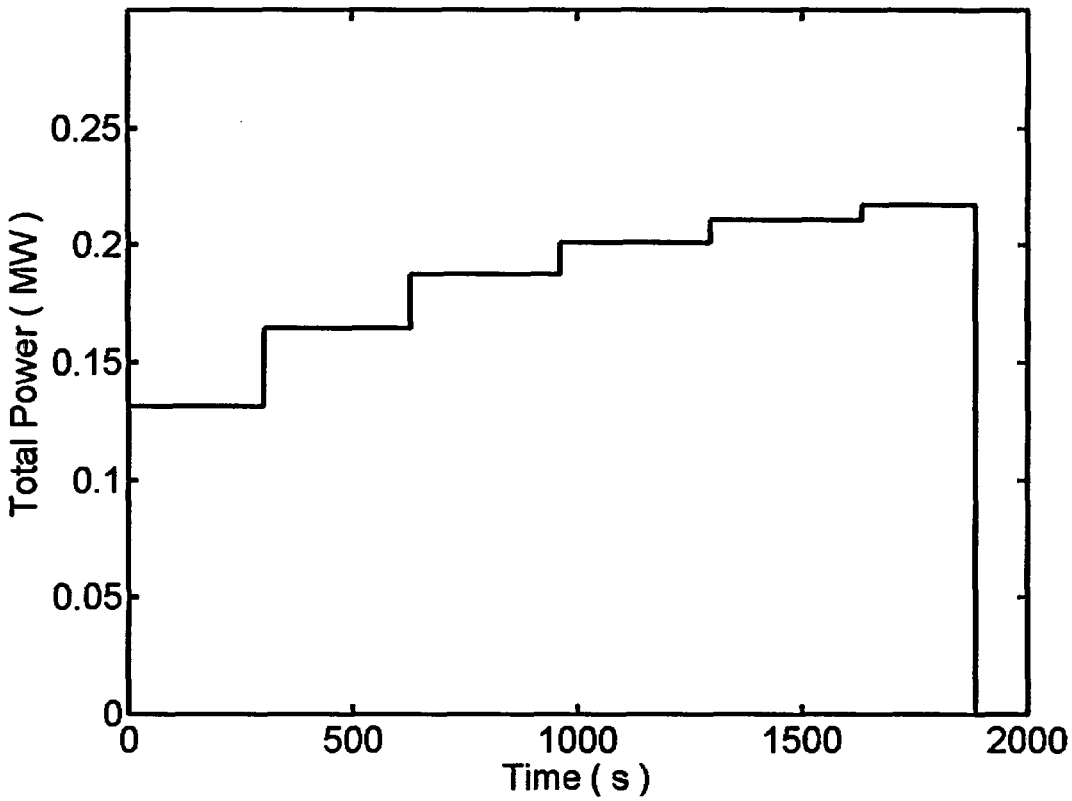

Figure A12.2. Total input power history.

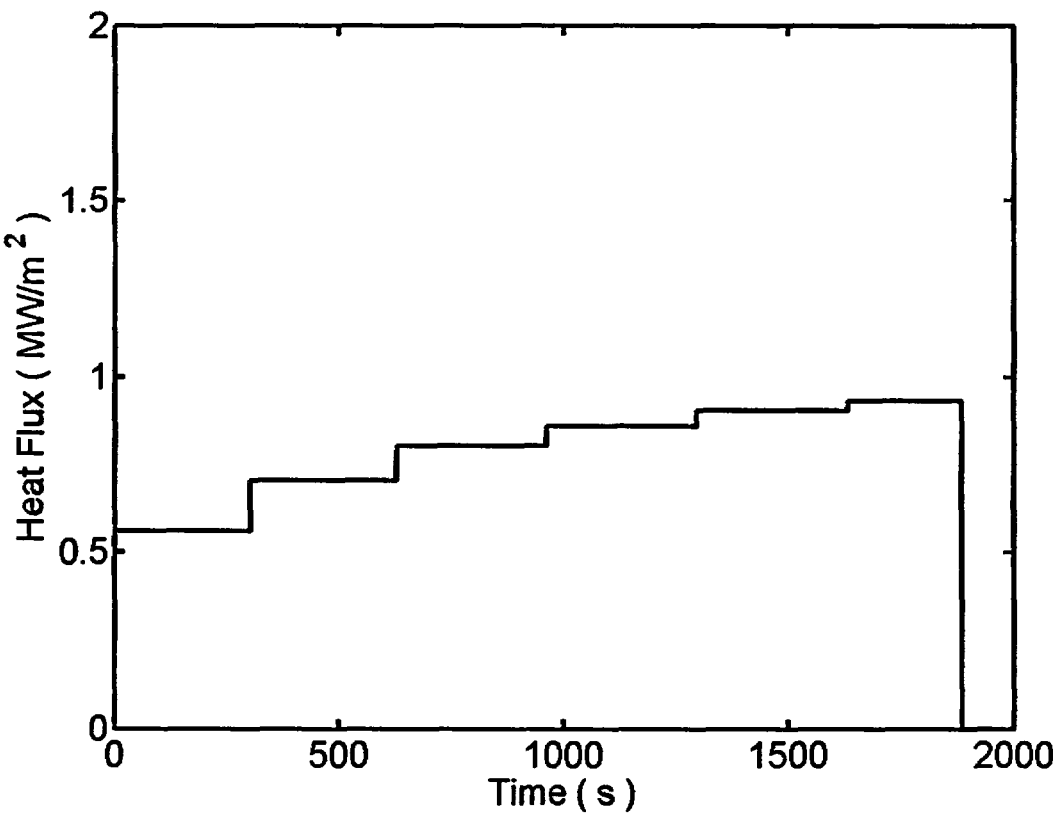

Figure A12.3. Heat flux history.

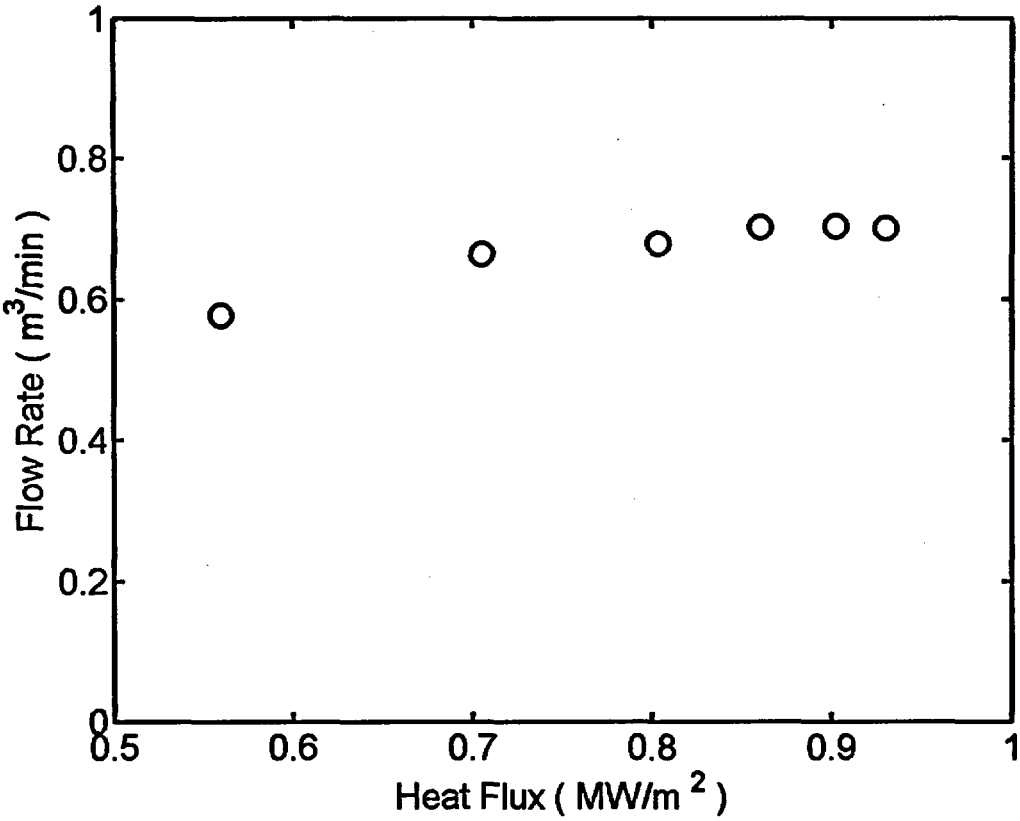

Figure A12.4. Flow rate vs. heat fluxes.

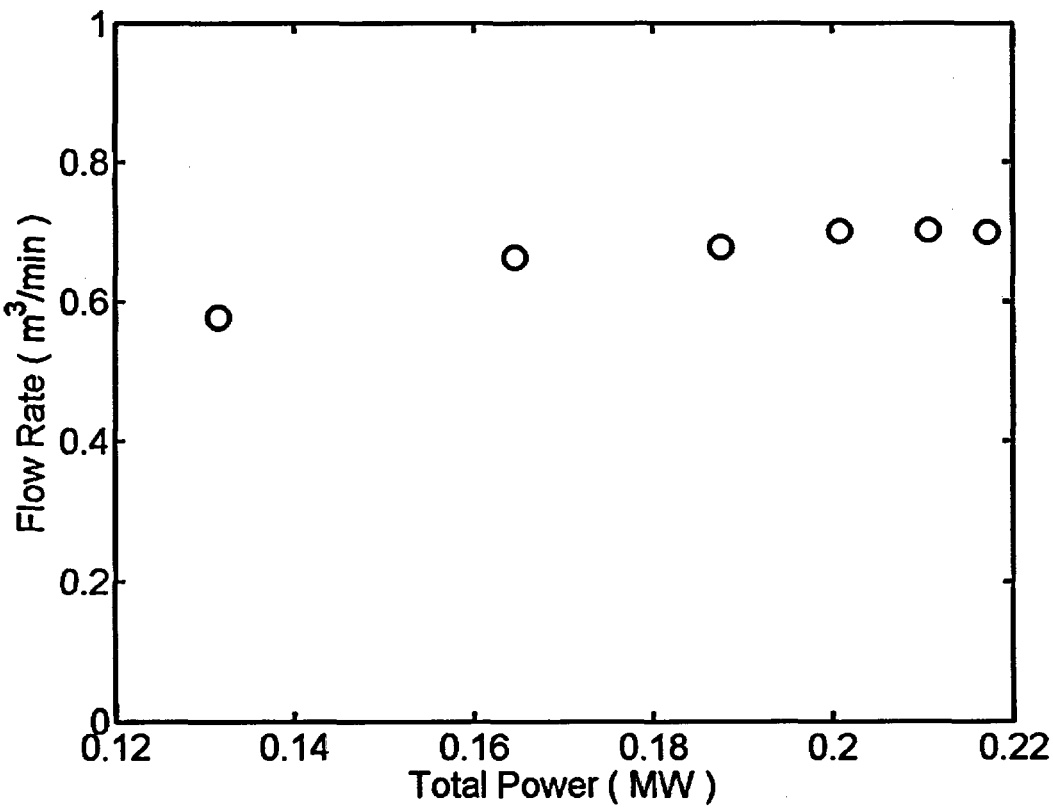

Figure A12.5. Flow rate vs. total input power.

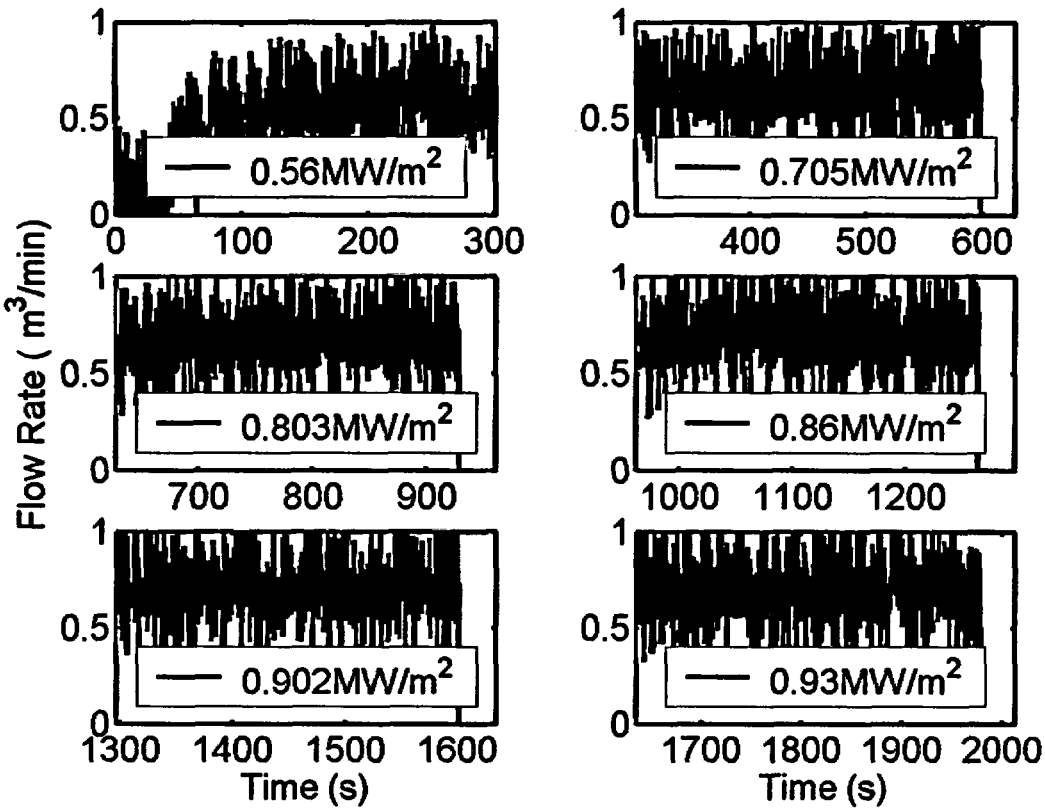

Figure A12.6. Flow rates at different heat fluxes.

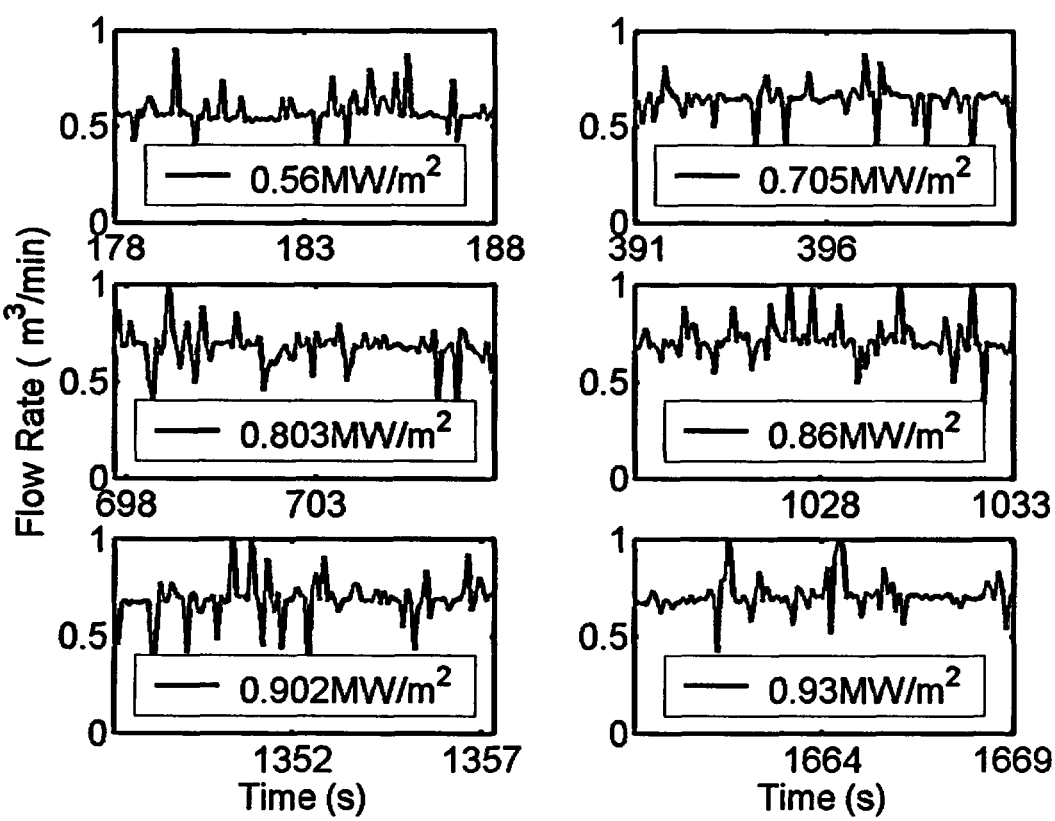

Figure A12.7. Flow rates at different heat fluxes at selected time intervals.

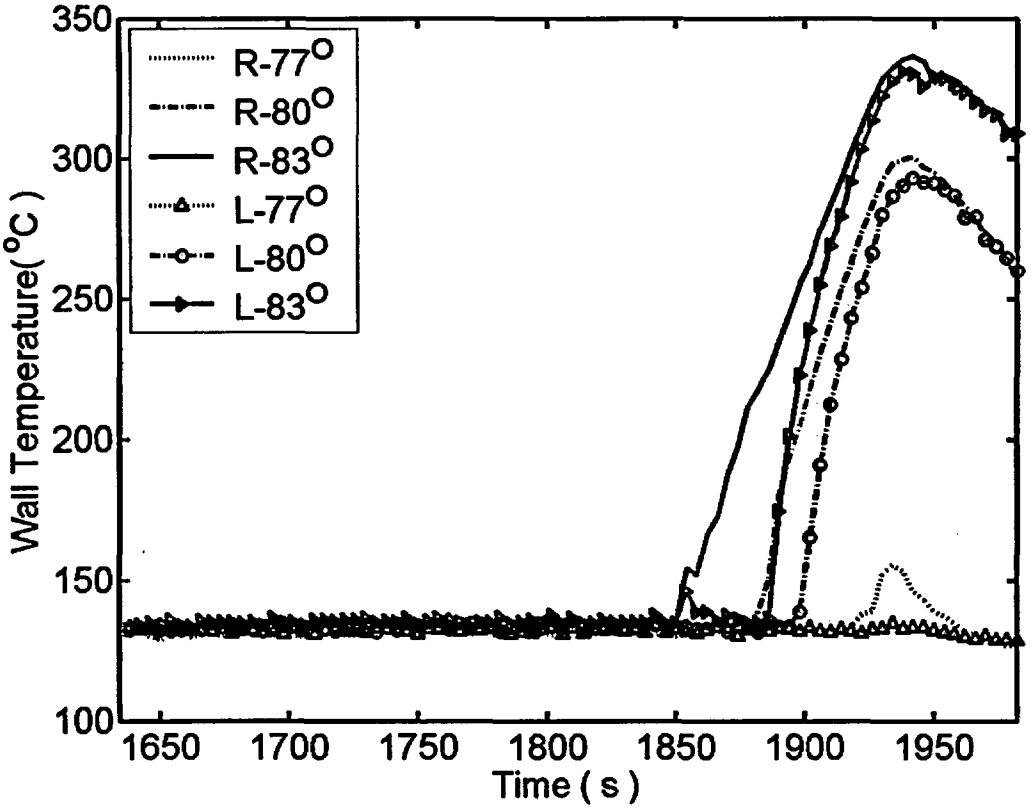

Figure A12.8. Temperature history at CHF.

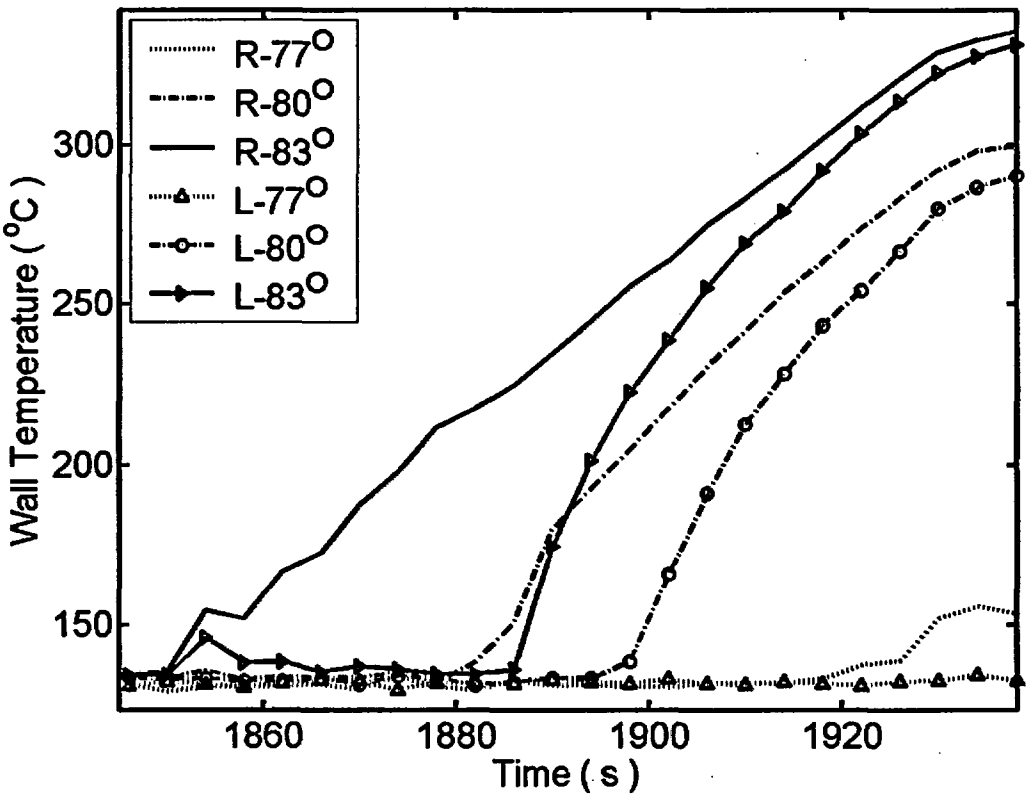

Figure A12.9. Temperature history at CHF in detail.

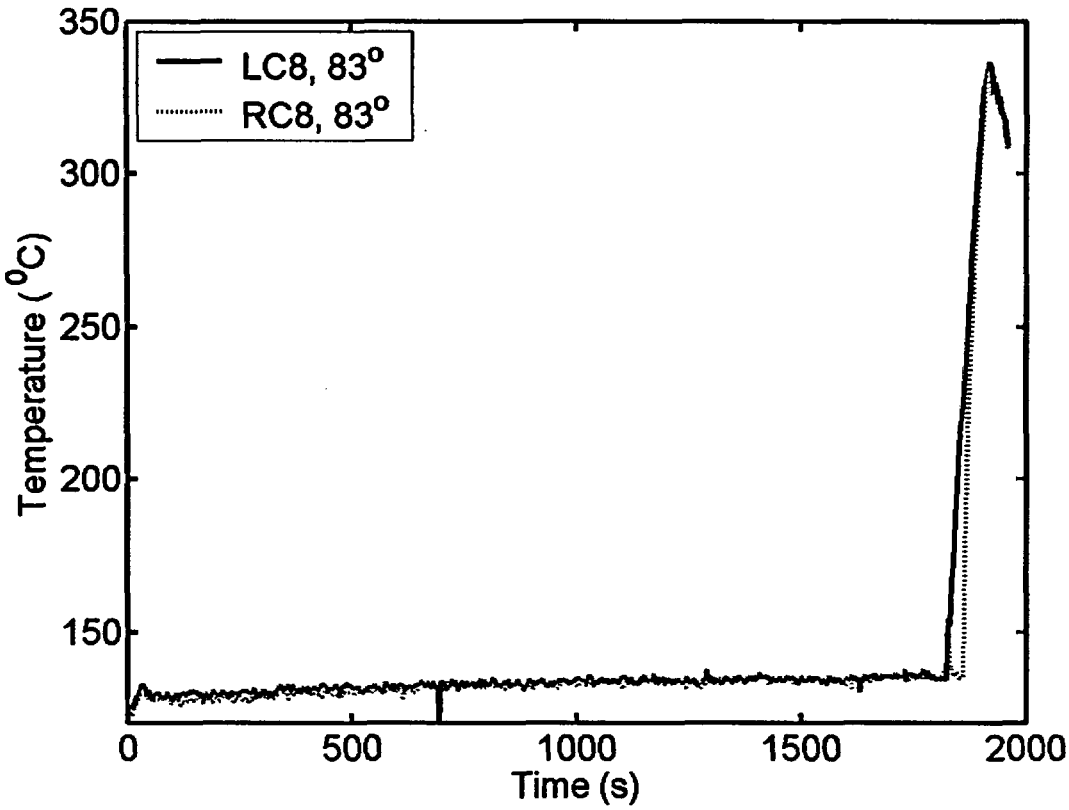

Figure A12.10. Wall temperature history measured by two thermocouples LC8 and RC8.

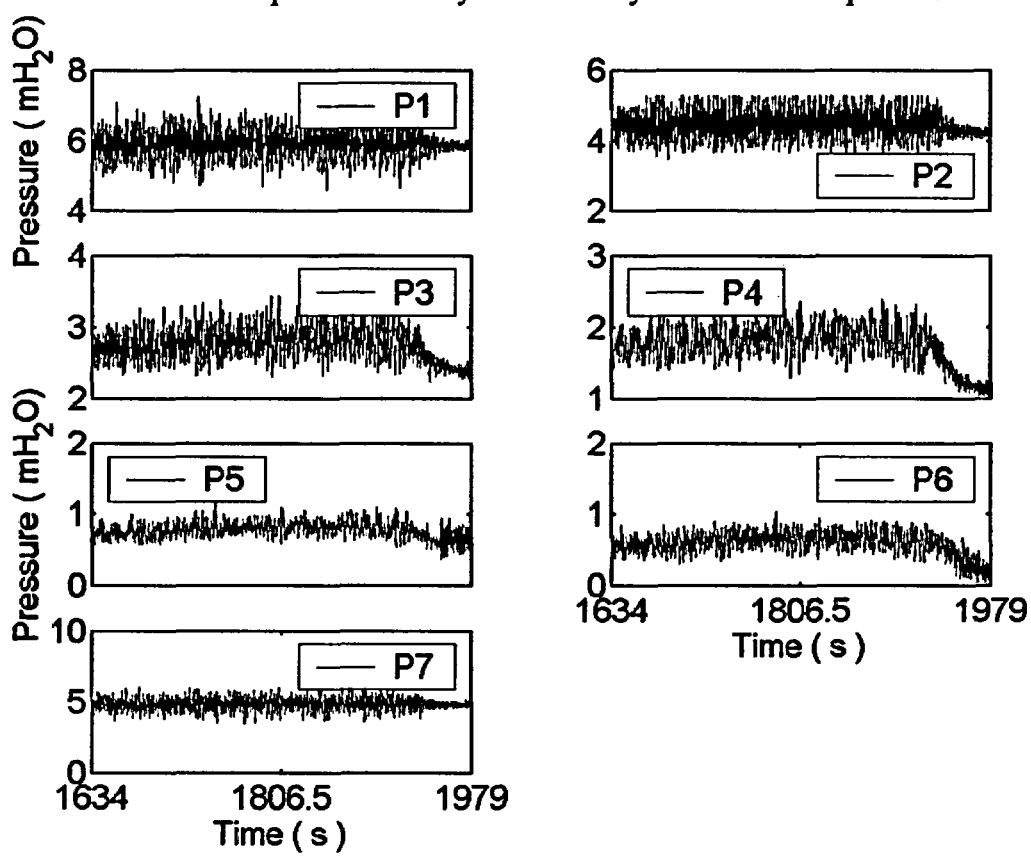

Figure A12.11. Pressure transducer data at q = 0.93 MW/m^2.

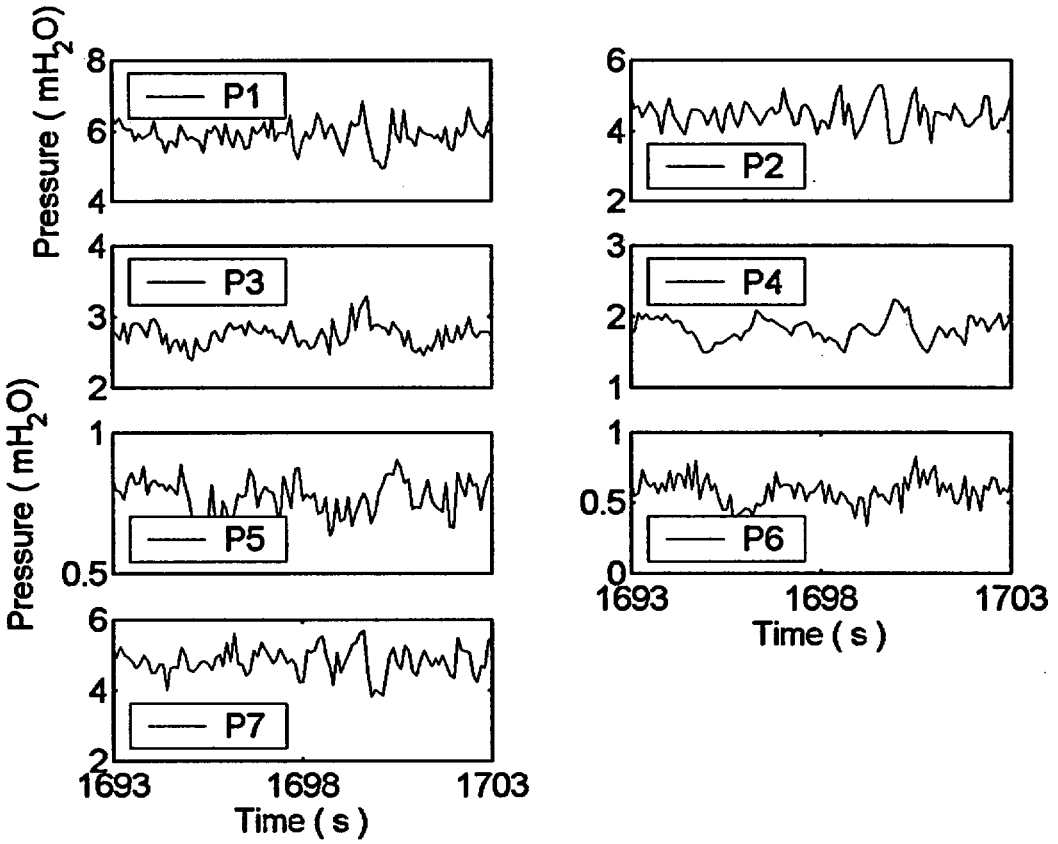

Figure A12.12. Pressure data in detail at q = 0.93 MW/m^2.

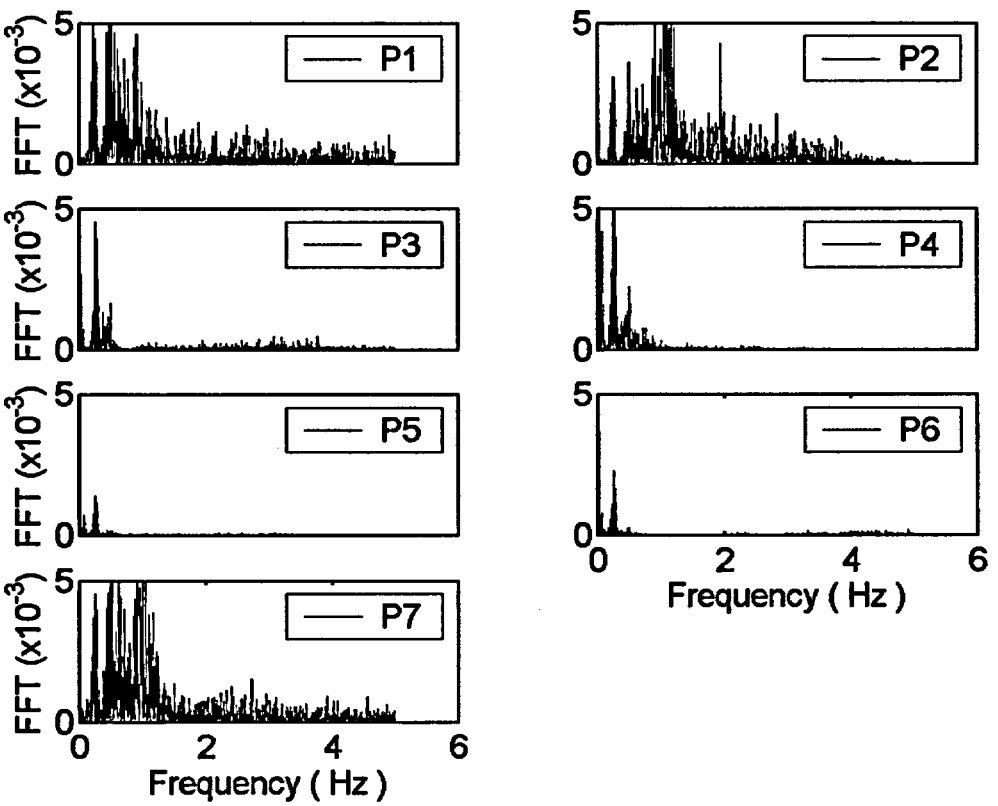

Figure A12.13. FFT of pressure time series at q = 0.93 MW/m^2.

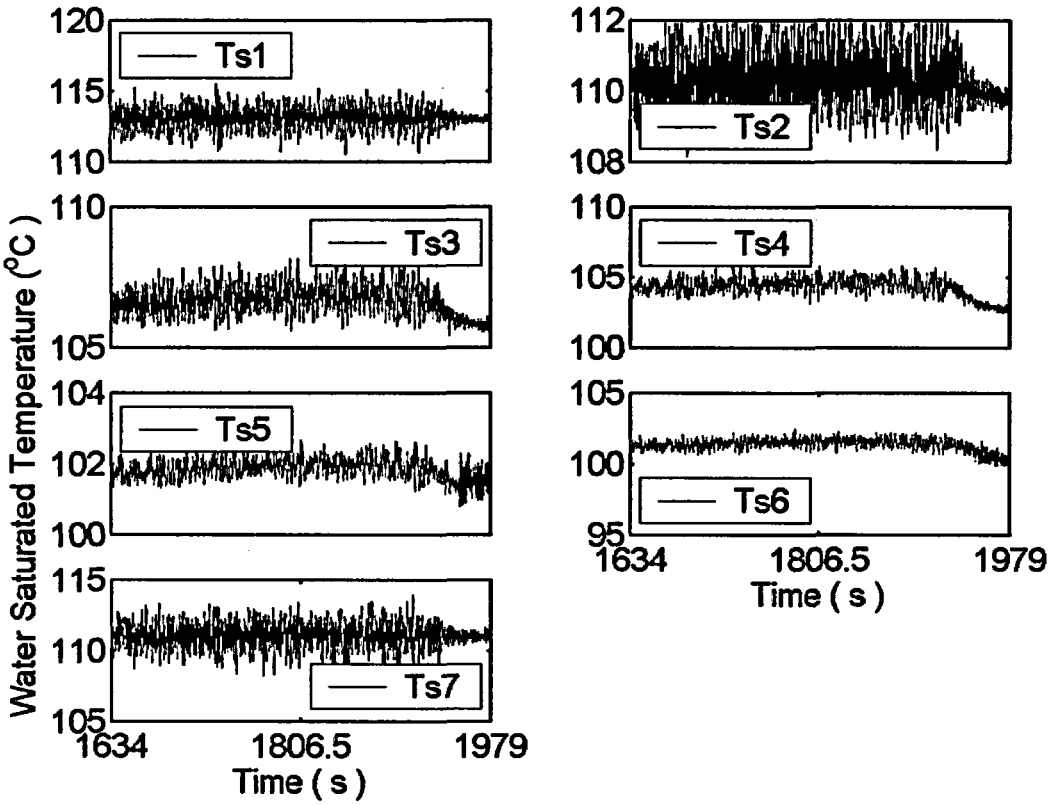

Figure A12.14. Water saturation temperature calculated from local pressure data at q = 0.93 MW/m^2.

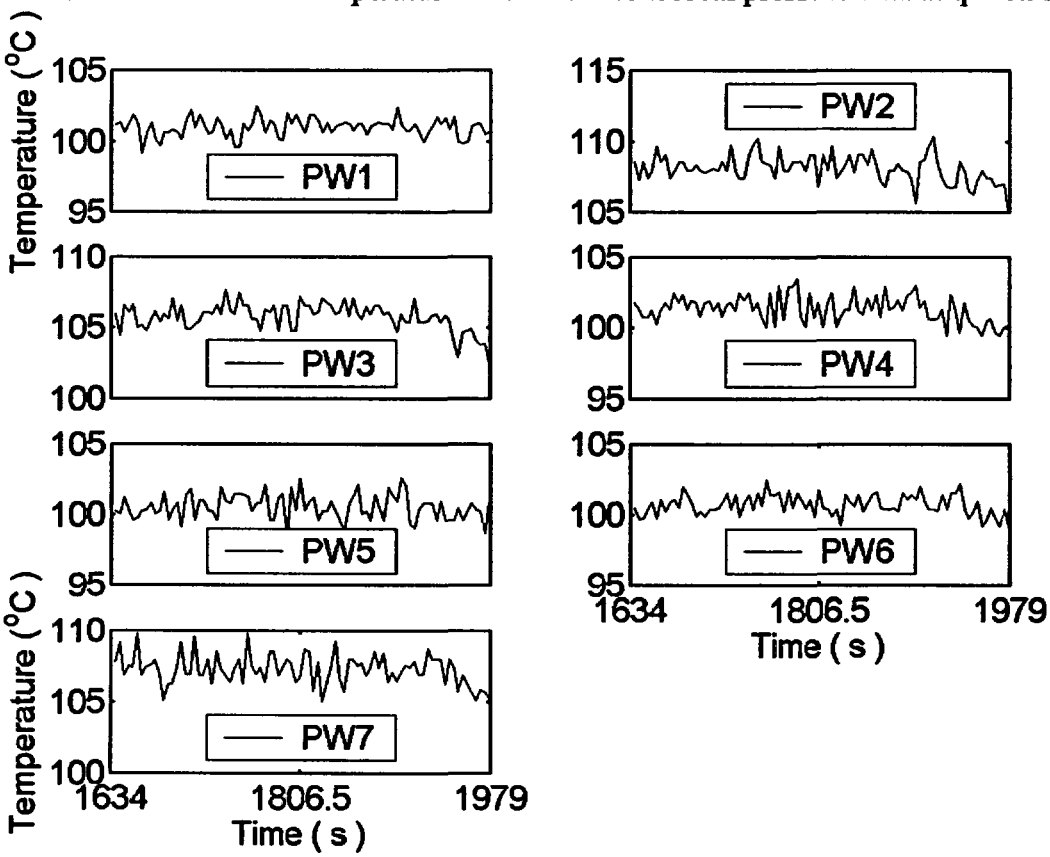

Figure A12.15. Water temperature measured at location of pressure transducer at q = 0.93 MW/m^2.

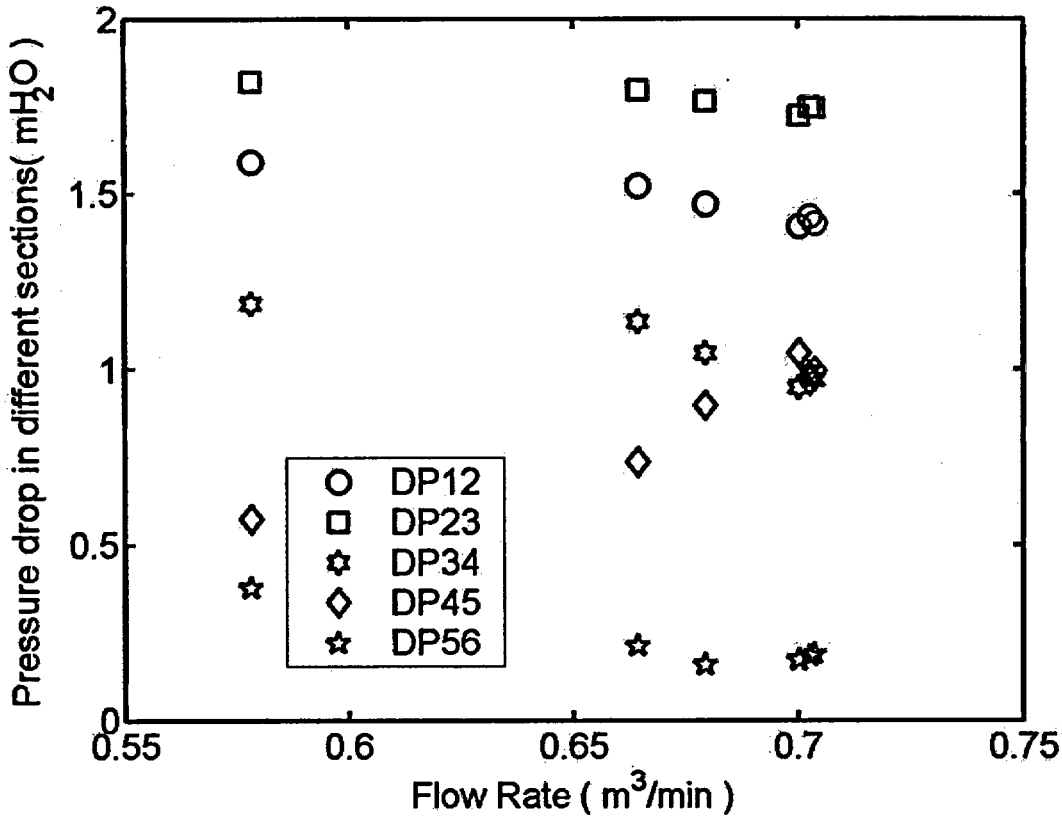

Figure A12.16. Pressure drop vs. flow rate at different heat fluxes.

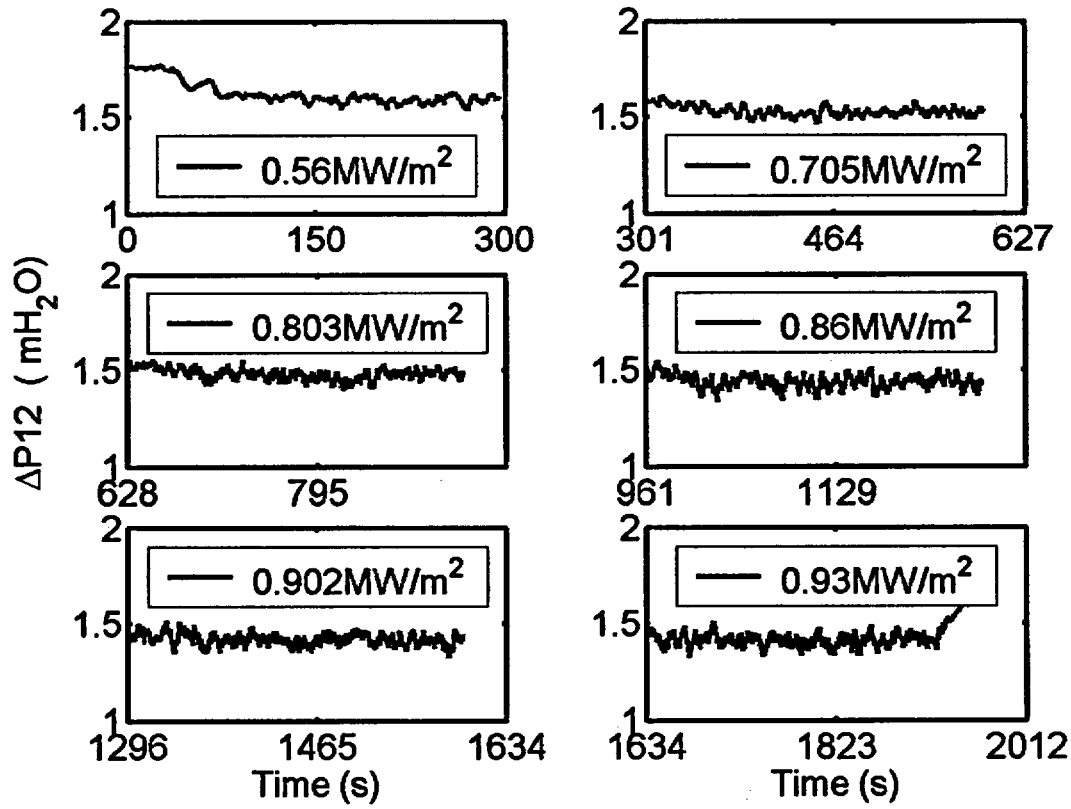

Figure A12.17. Differential Pressure ΔP12 at different heat fluxes.

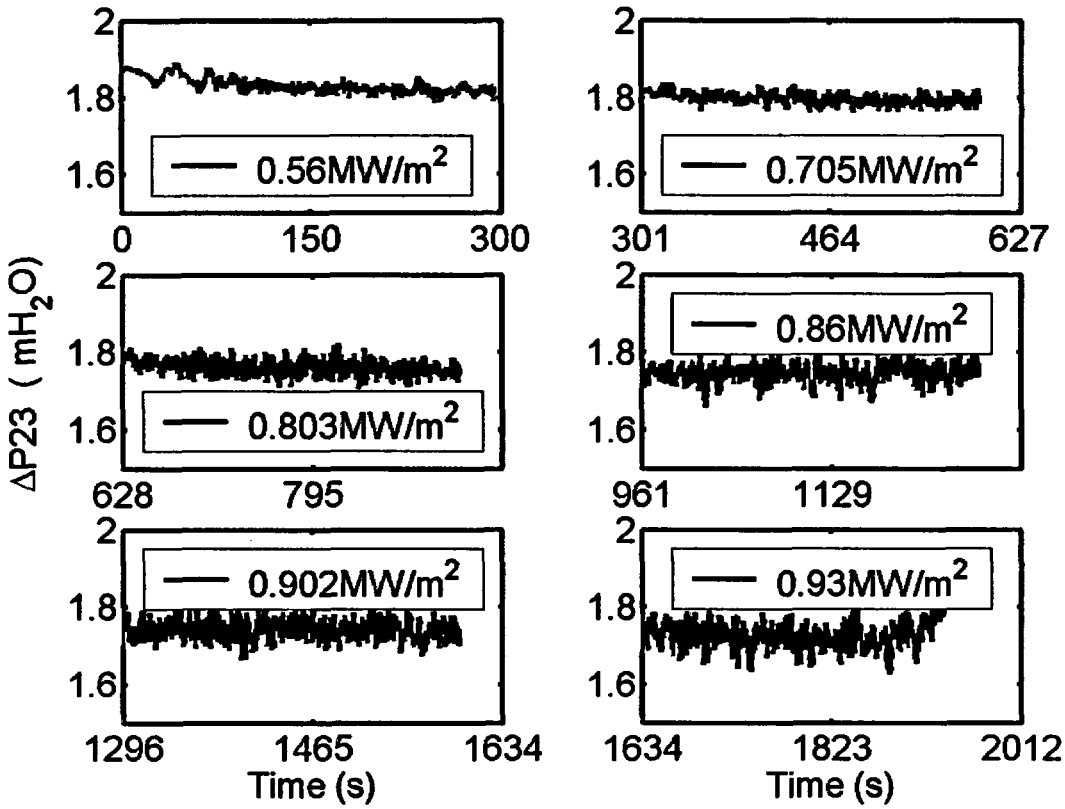

Figure A12.18. Differential Pressure ΔP23 at different heat fluxes.

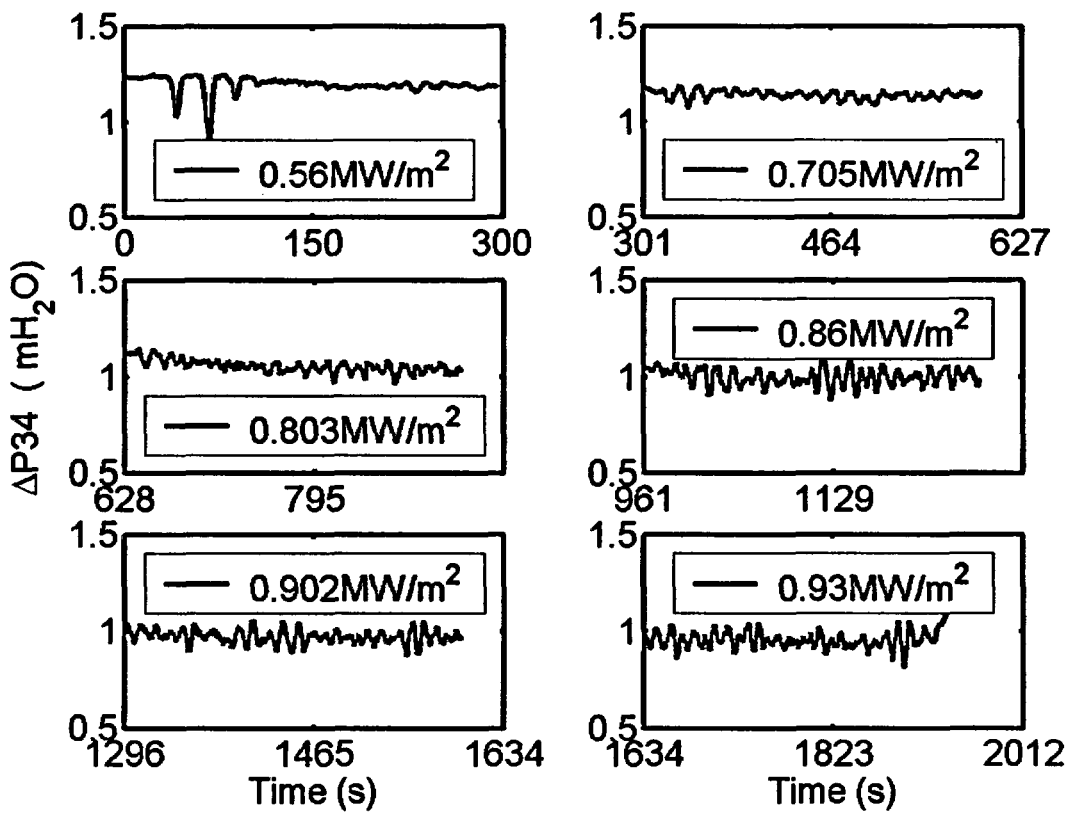

Figure A12.19. Differential Pressure ΔP34 at different heat fluxes.

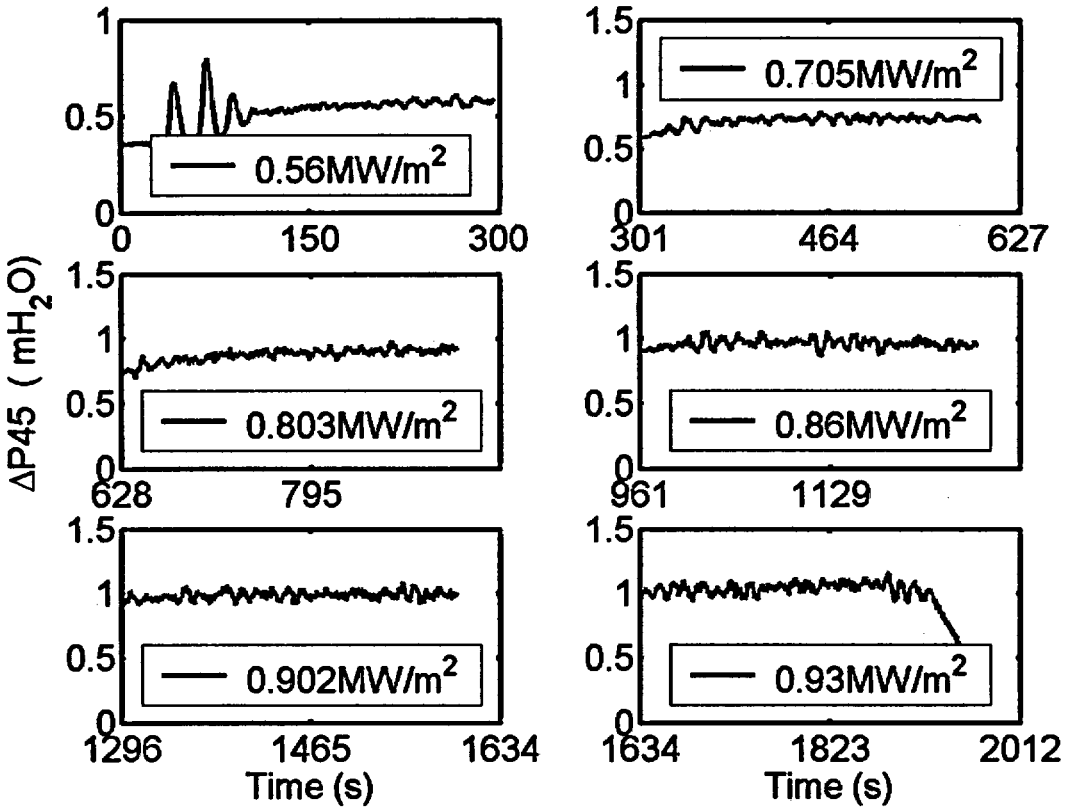

Figure A12.20. Differential Pressure ΔP45 at different heat fluxes.

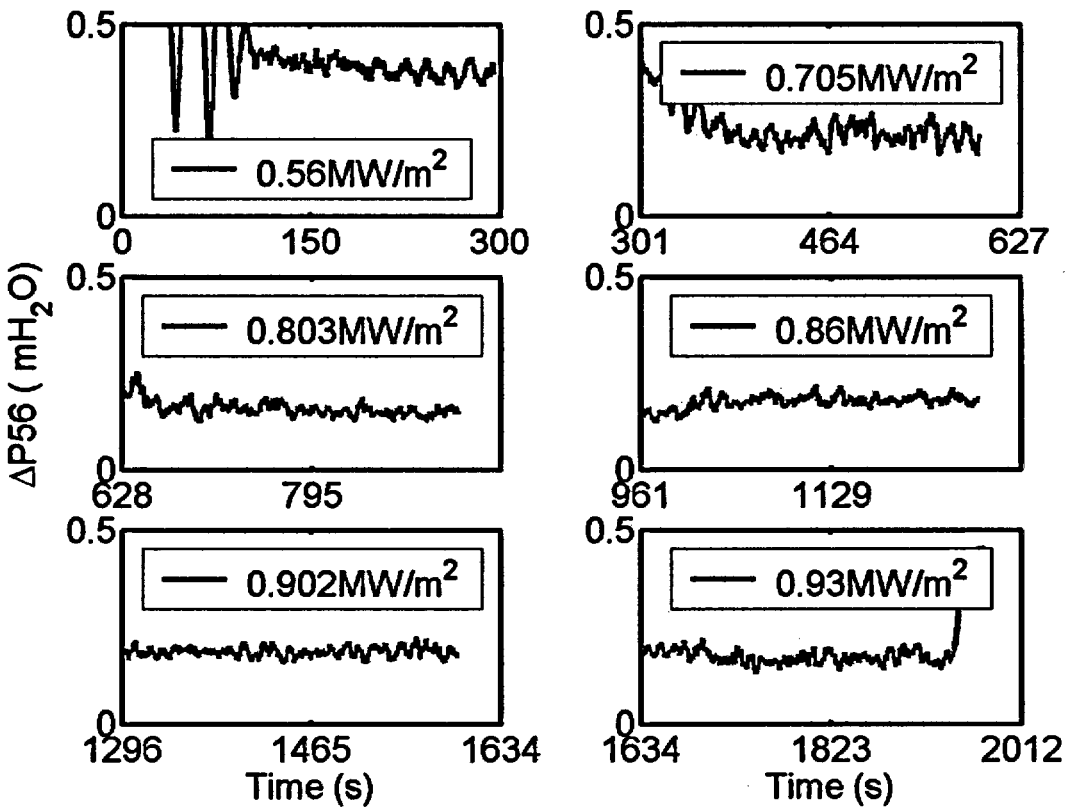

Figure A12.21 Differential Pressure ΔP56 at different heat fluxes.

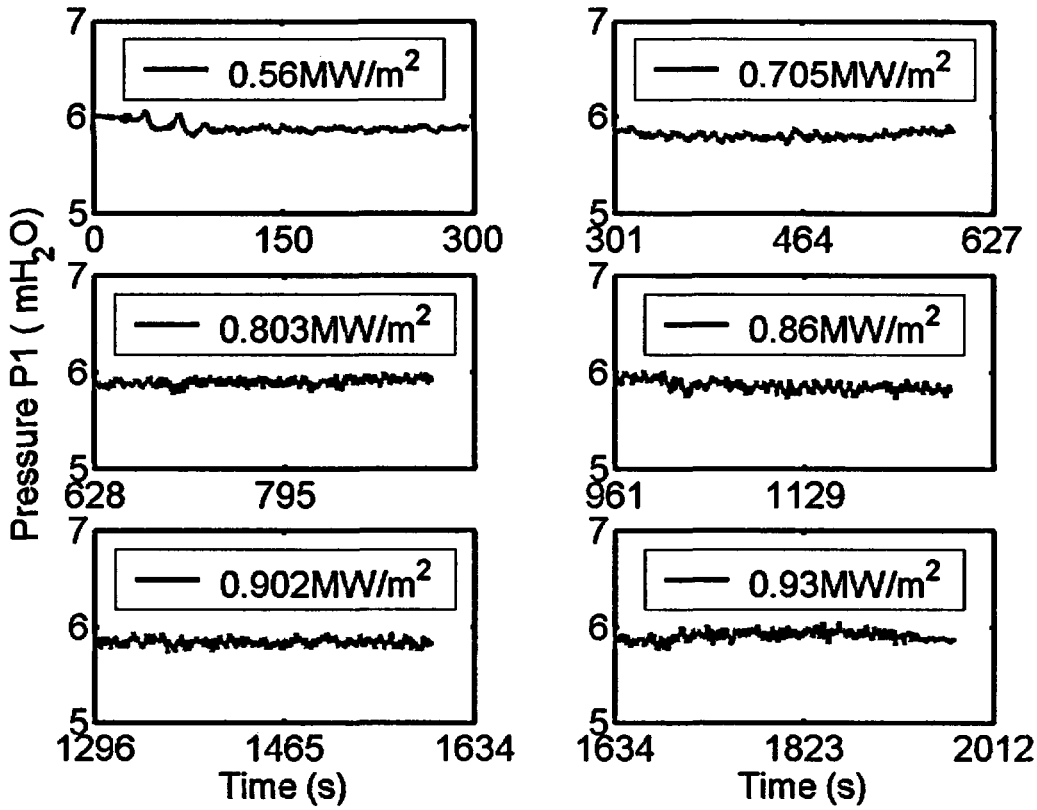

Figure A12.22. Pressure P1 at different heat fluxes.

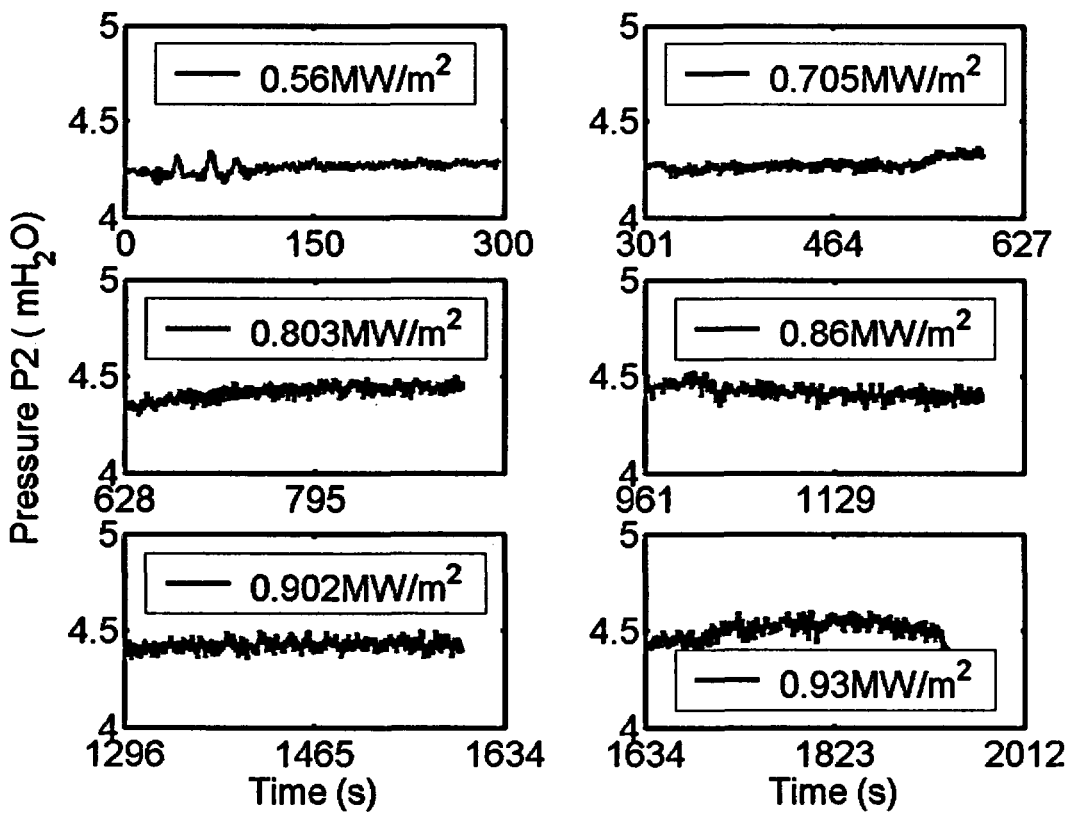

Figure A12.23. Pressure P2 at different heat fluxes.

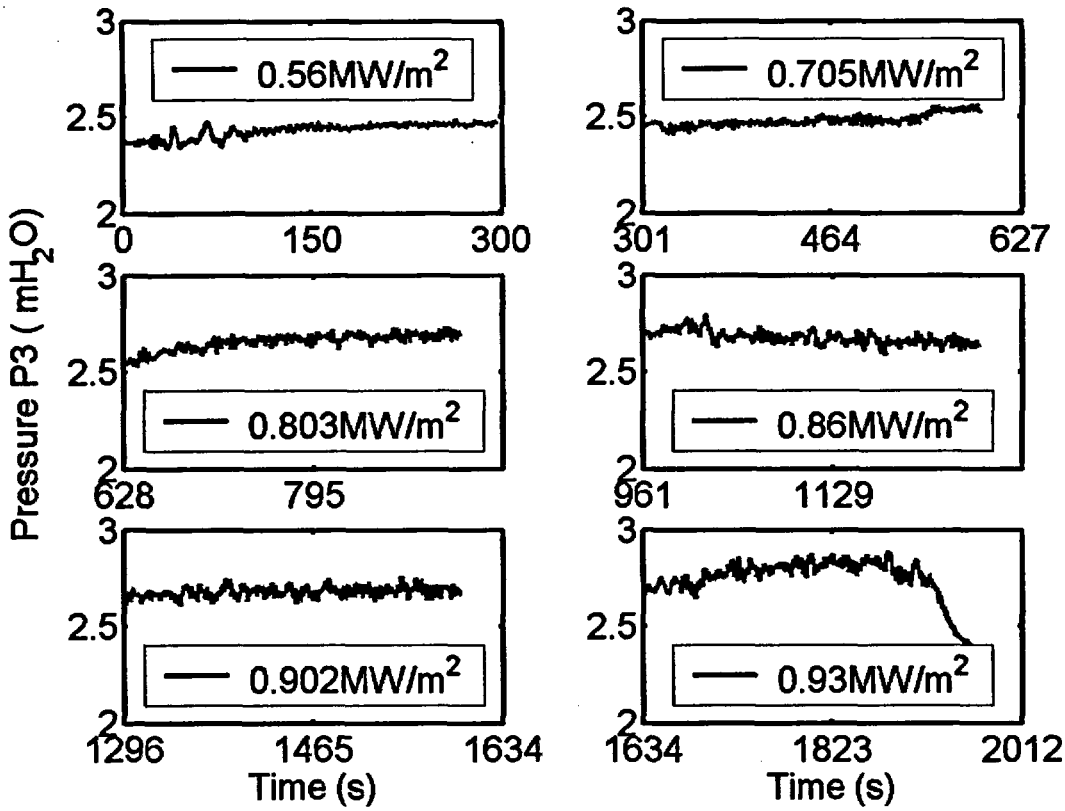

Figure A12.24. Pressure P3 at different heat fluxes.

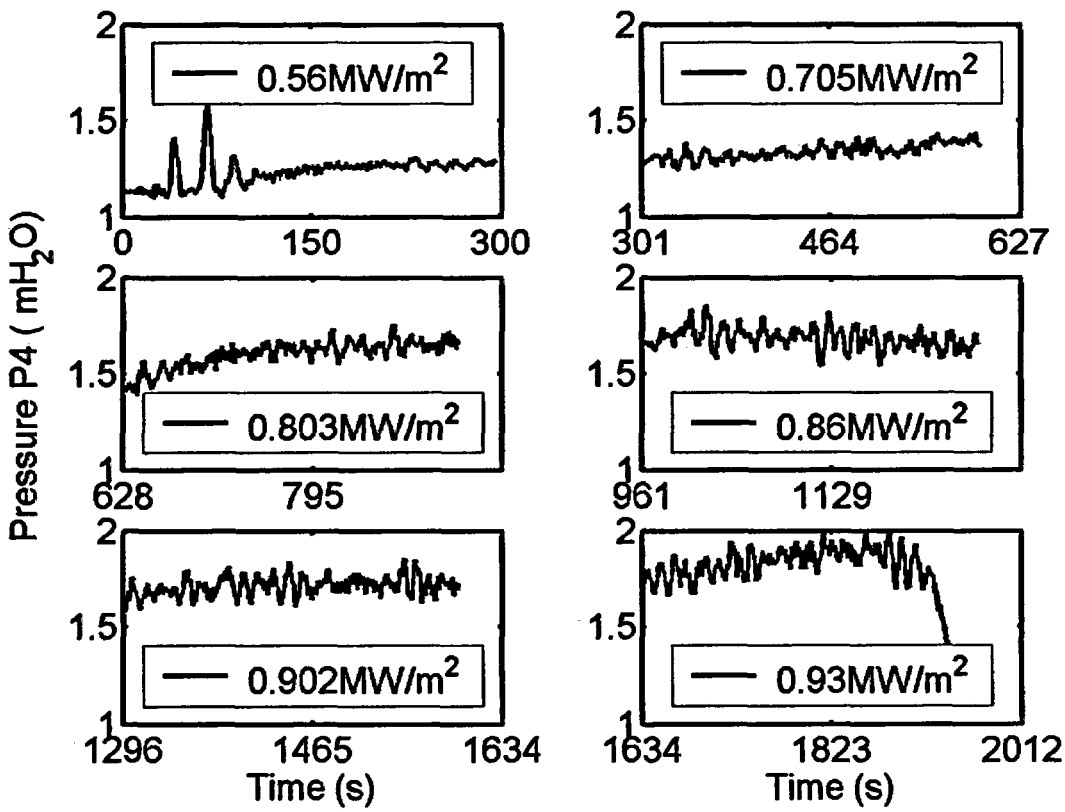

Figure A12.25. Pressure P4 at different heat fluxes.

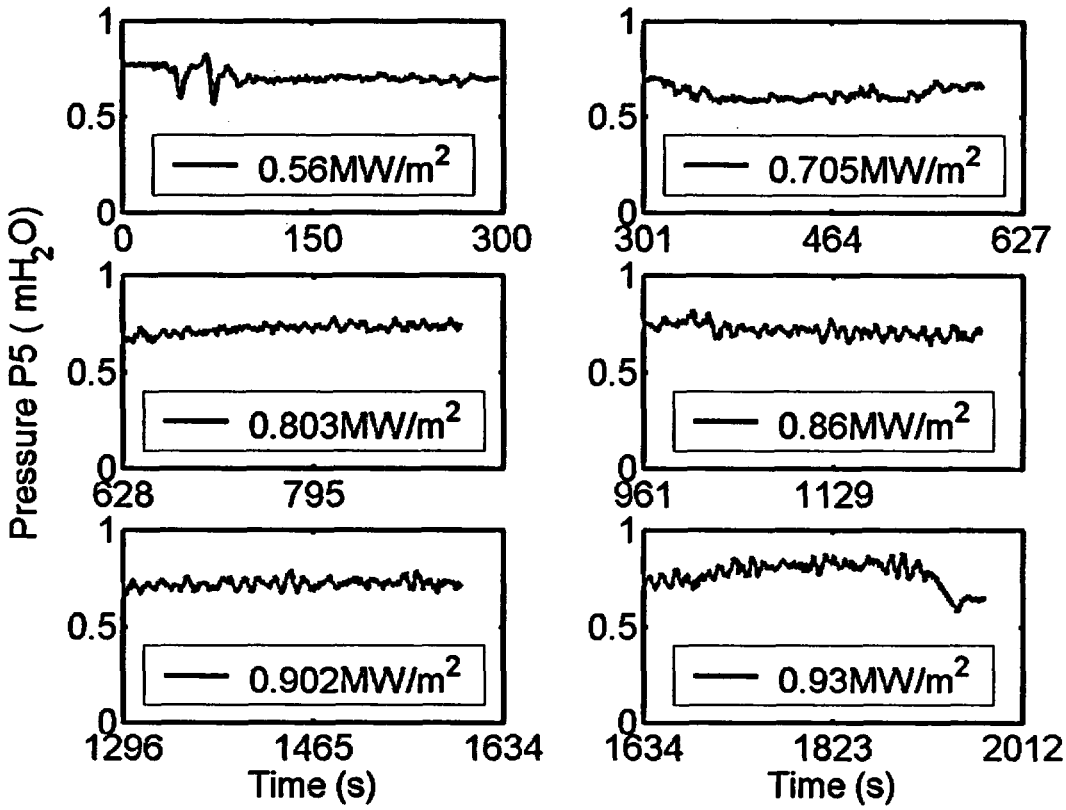

Figure A12.26. Pressure P5 at different heat fluxes.

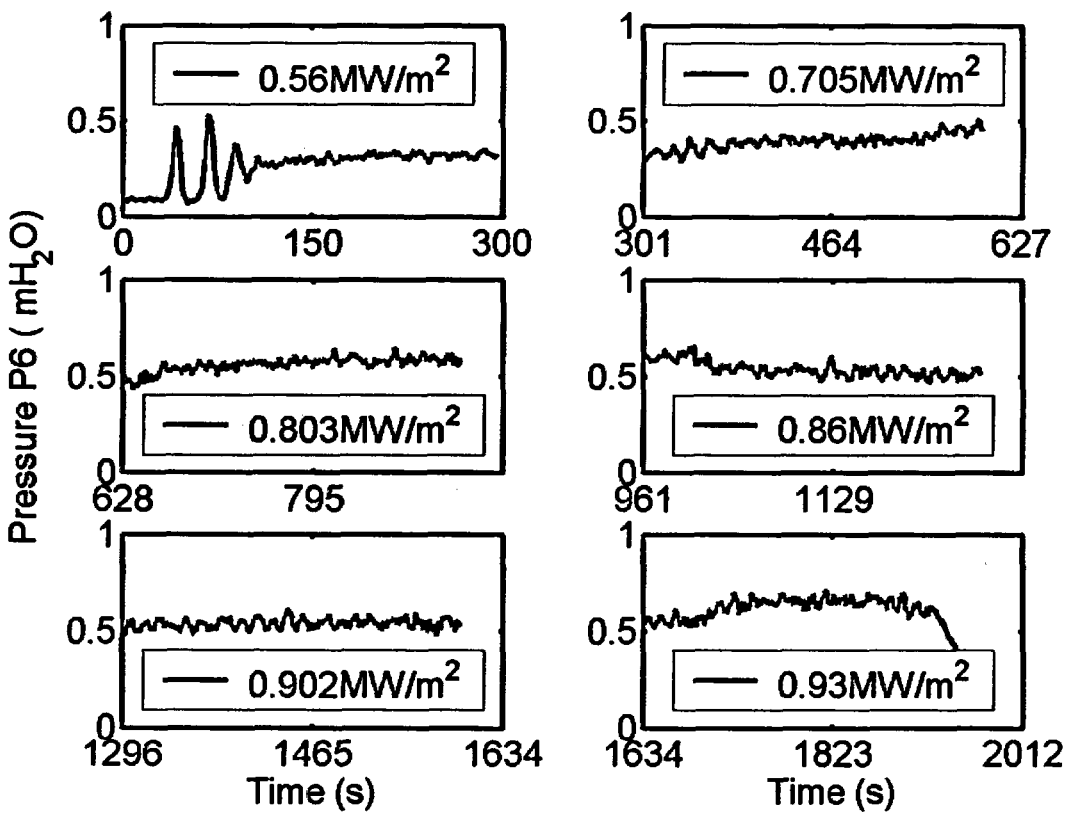

Figure A12.27. Pressure P6 at different heat fluxes.

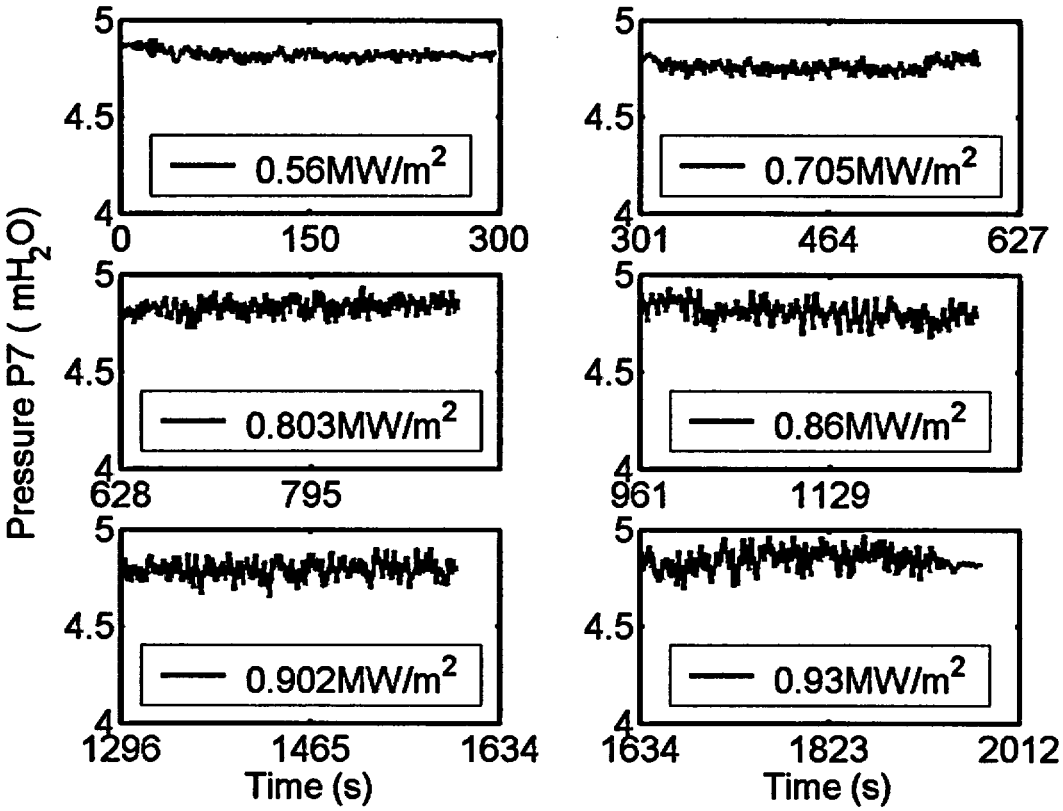

Figure A12.28. Pressure P7 at different heat fluxes.

ID #13

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T24A	1128	RB5	46	C	01/03/2003/15:50

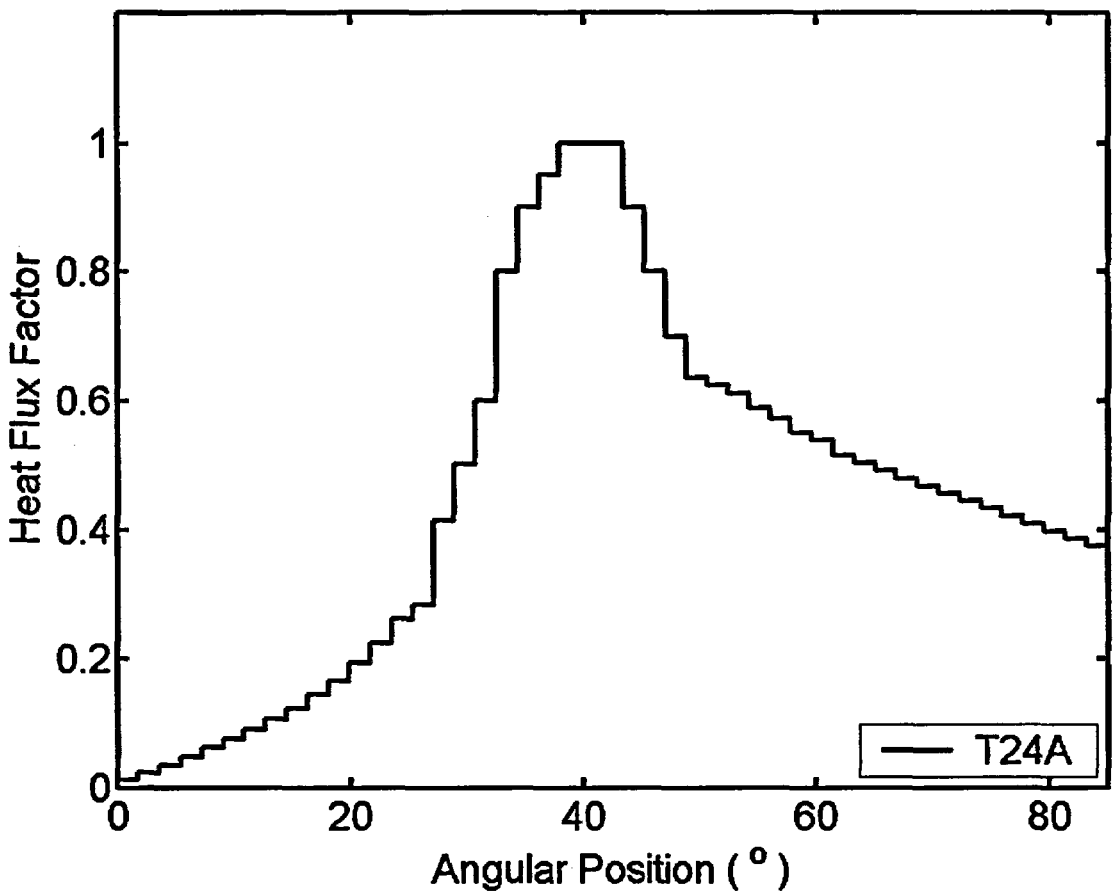

Figure A13.1. Power shape.

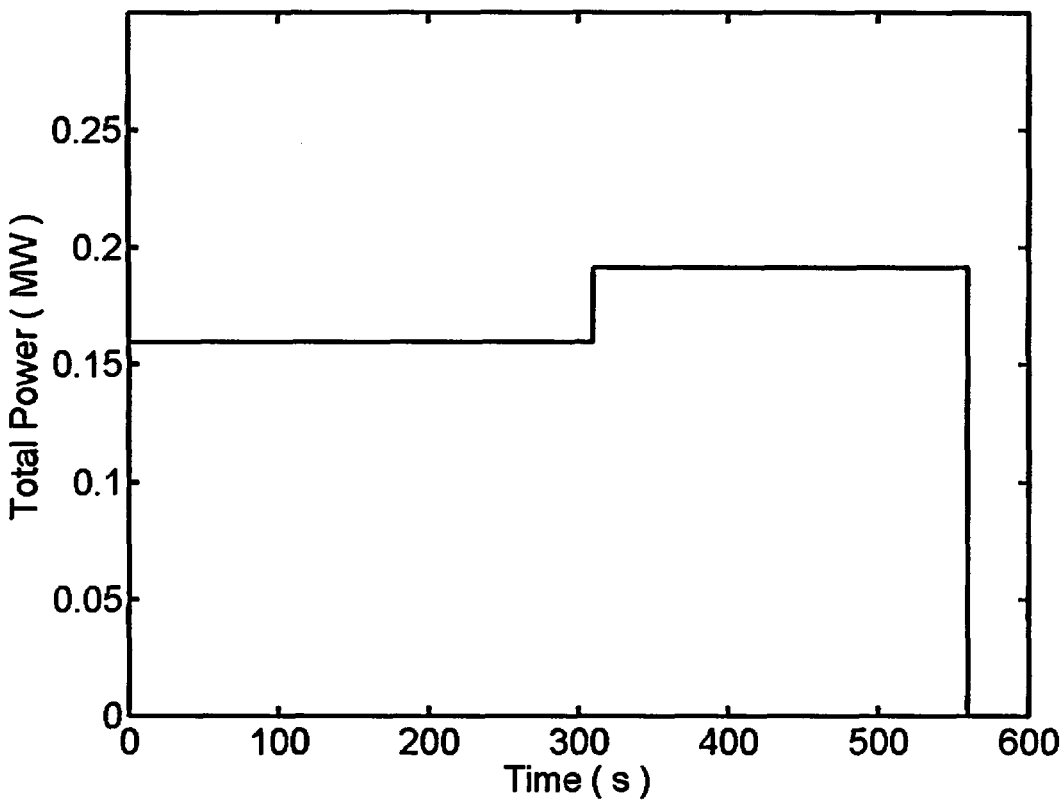

Figure A13.2. Total input power history.

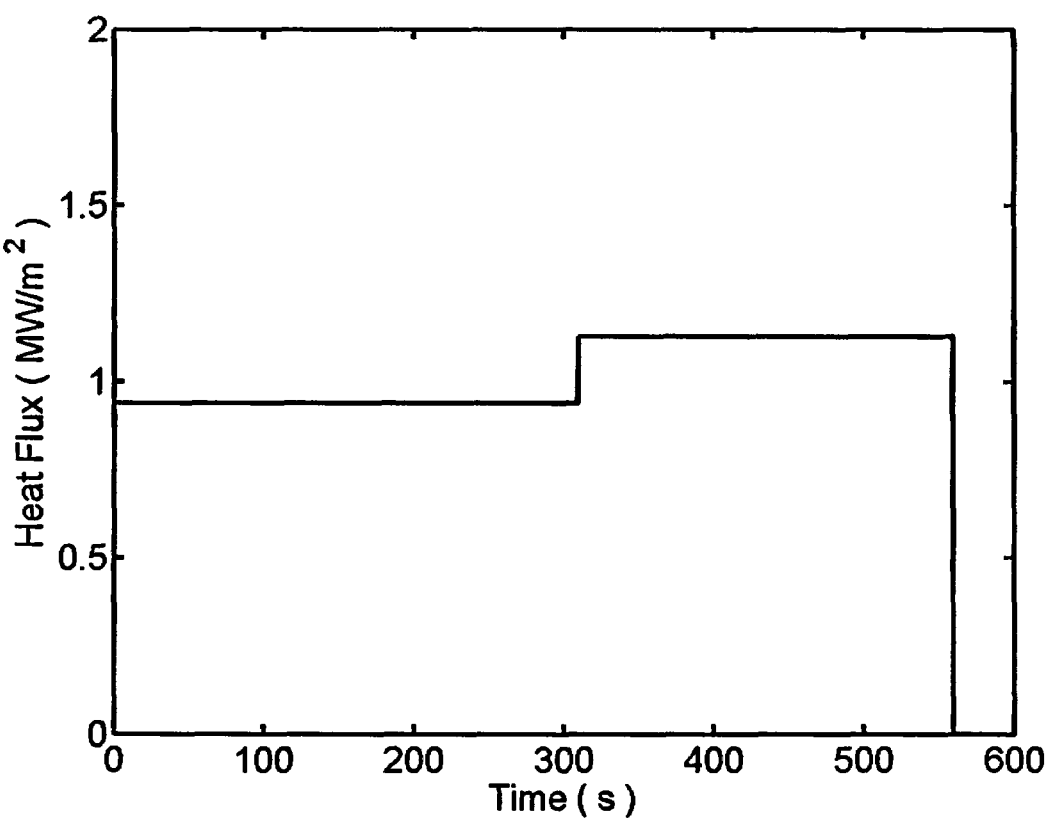

Figure A13.3. Heat flux history.

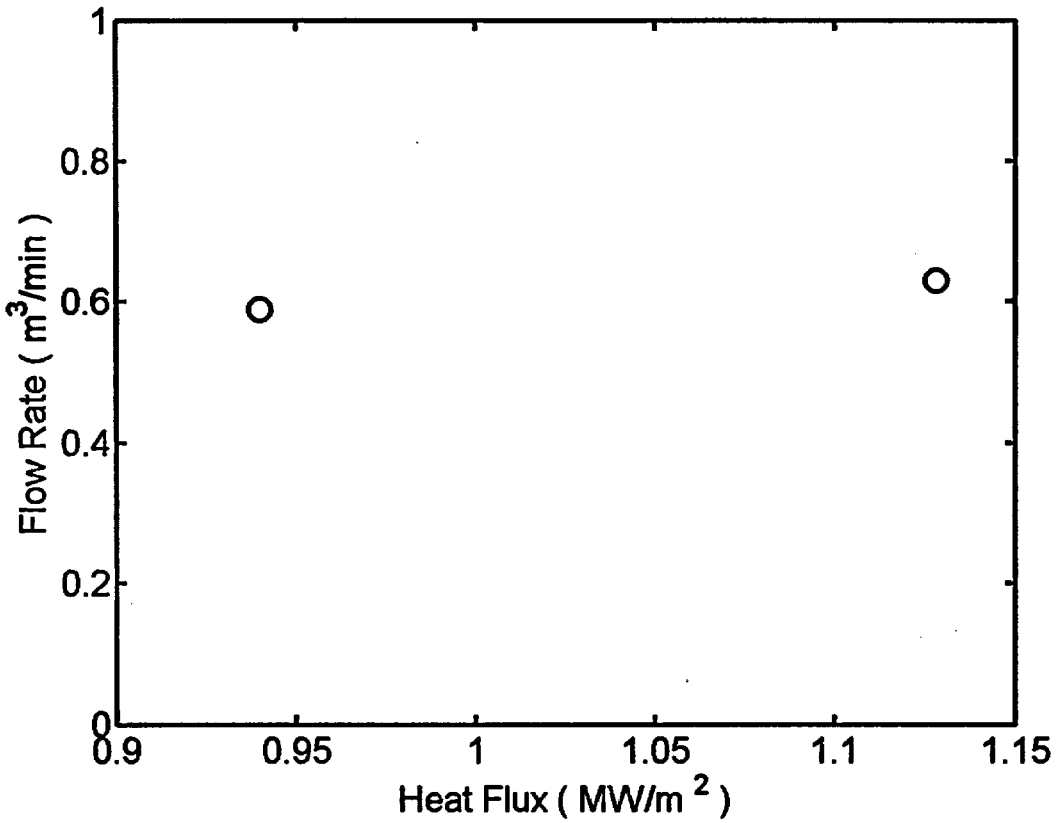

Figure A13.4. Flow rate vs. heat fluxes.

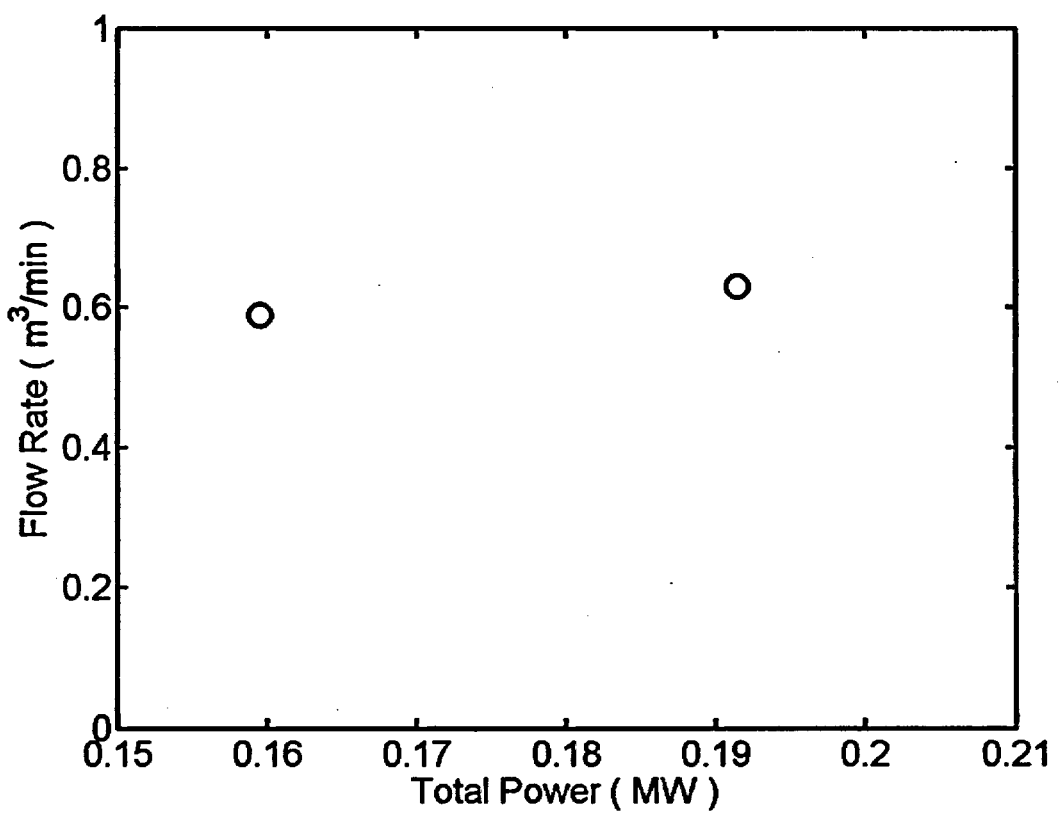

Figure A13.5. Flow rate vs. total input power.

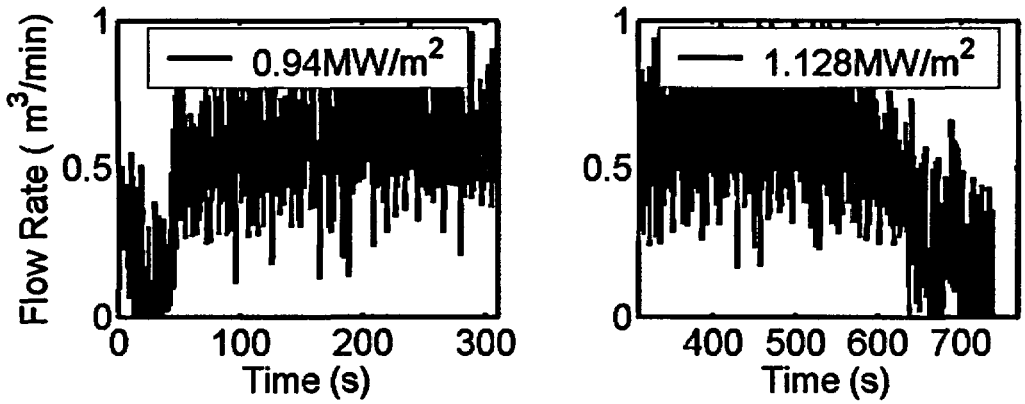

Figure A13.6. Flow rates at different heat fluxes.

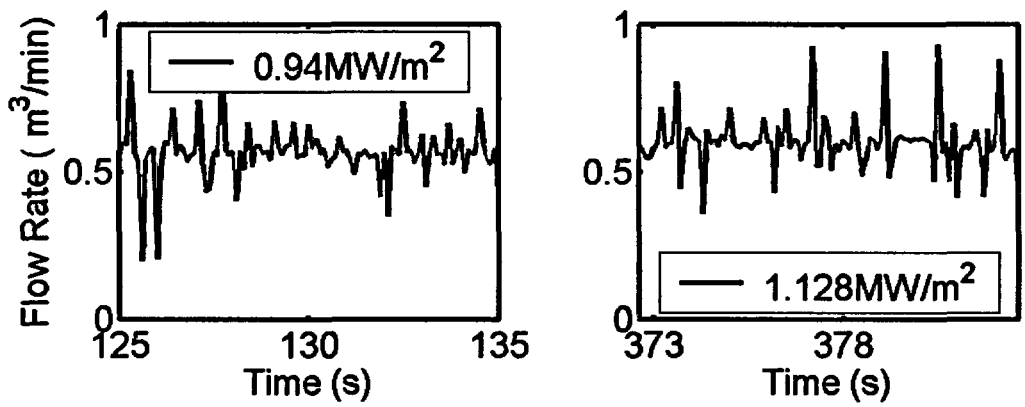

Figure A13.7. Flow rates at different heat fluxes at selected time intervals.

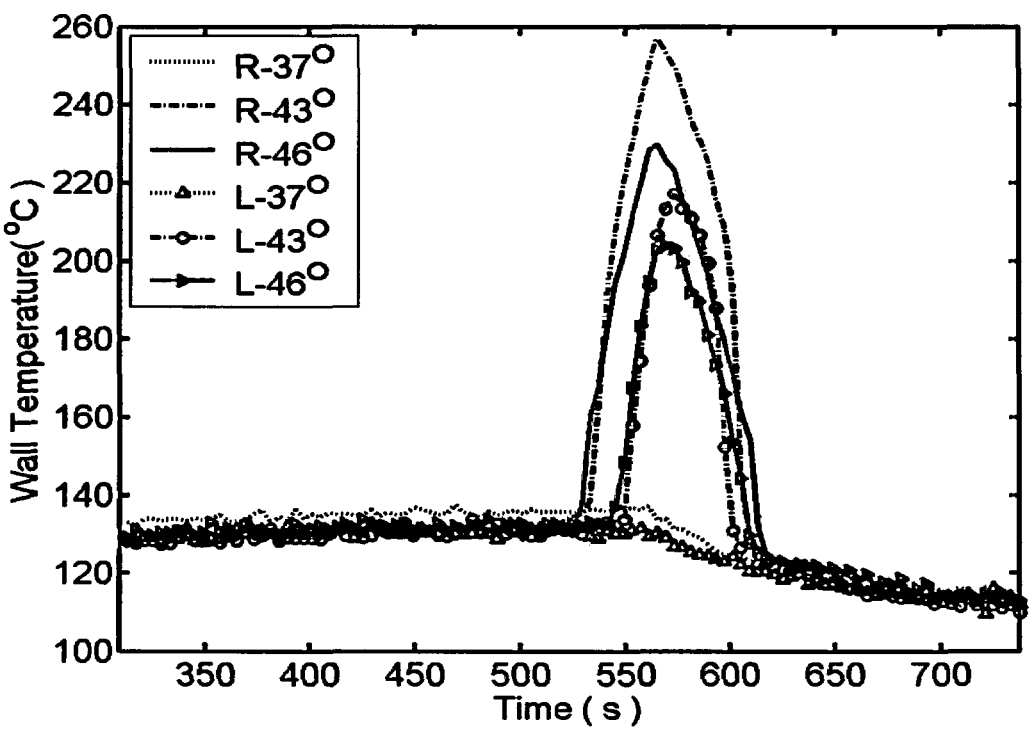

Figure A13.8. Temperature history at CHF.

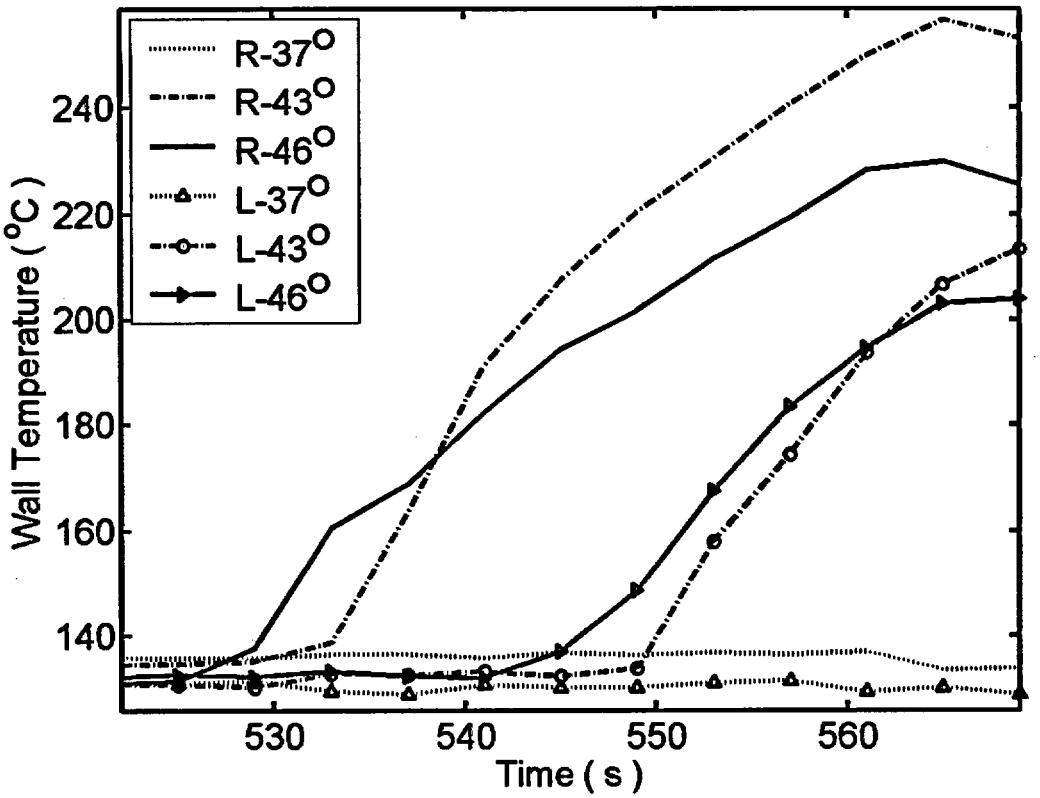

Figure A13.9. Temperature history at CHF in detail.

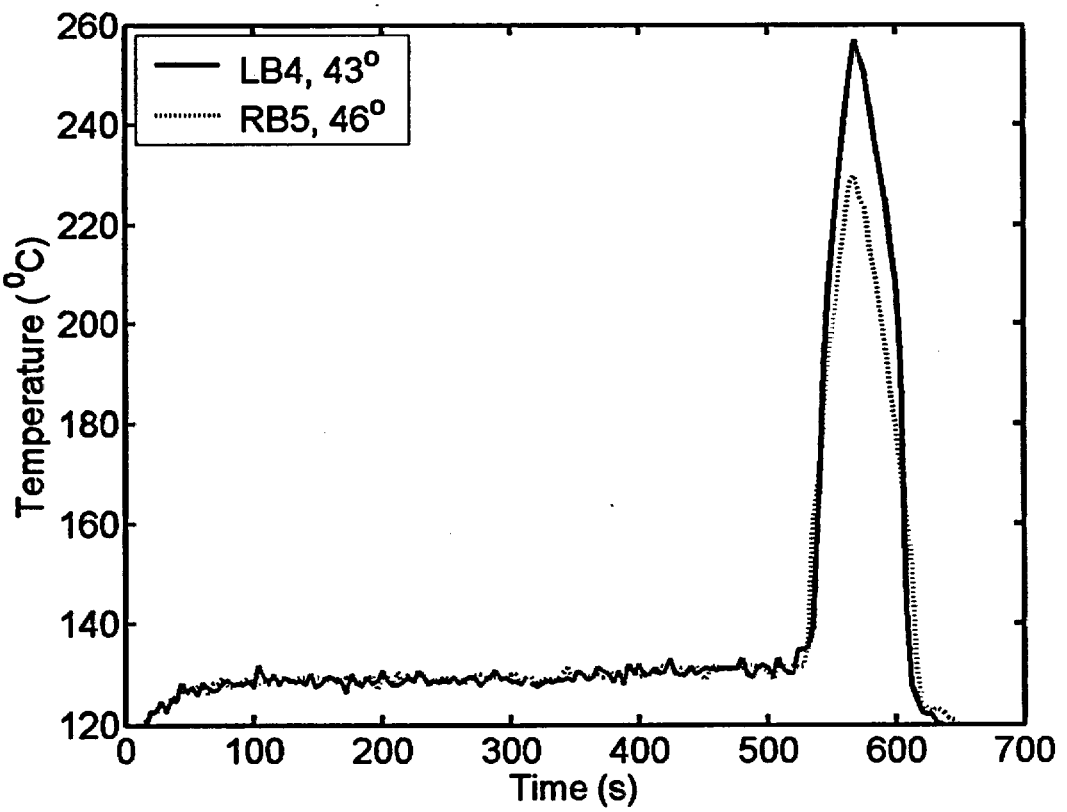

Figure A13.10. Wall temperature history measured by two thermocouples RB4 and RB5.

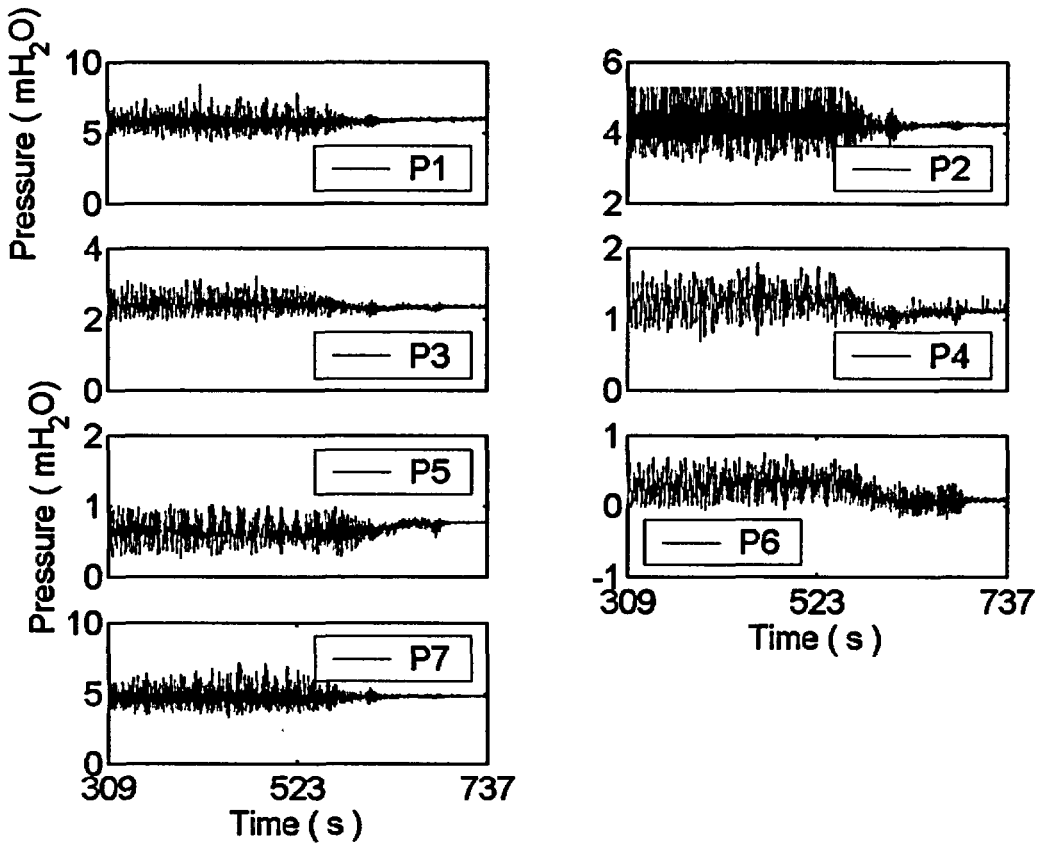

Figure A13.11. Pressure transducer data at q = 1.128 MW/m^2.

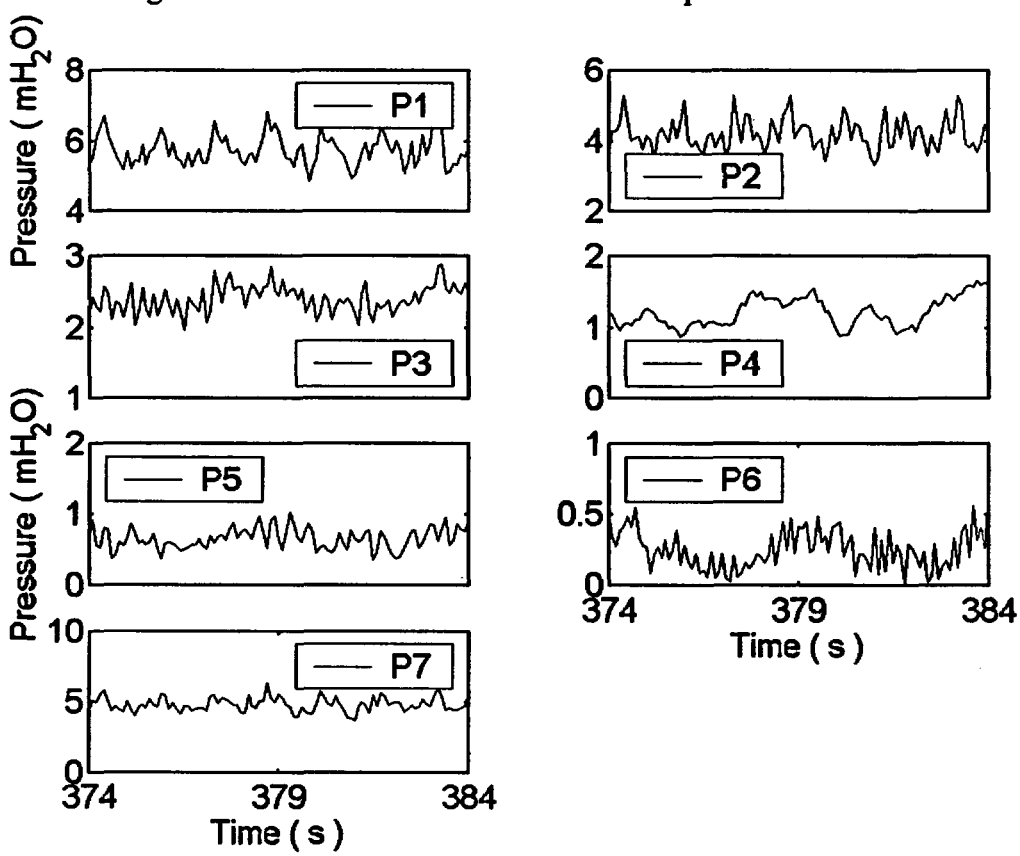

Figure A13.12. Pressure data in detail at q = 1.128 MW/m^2.

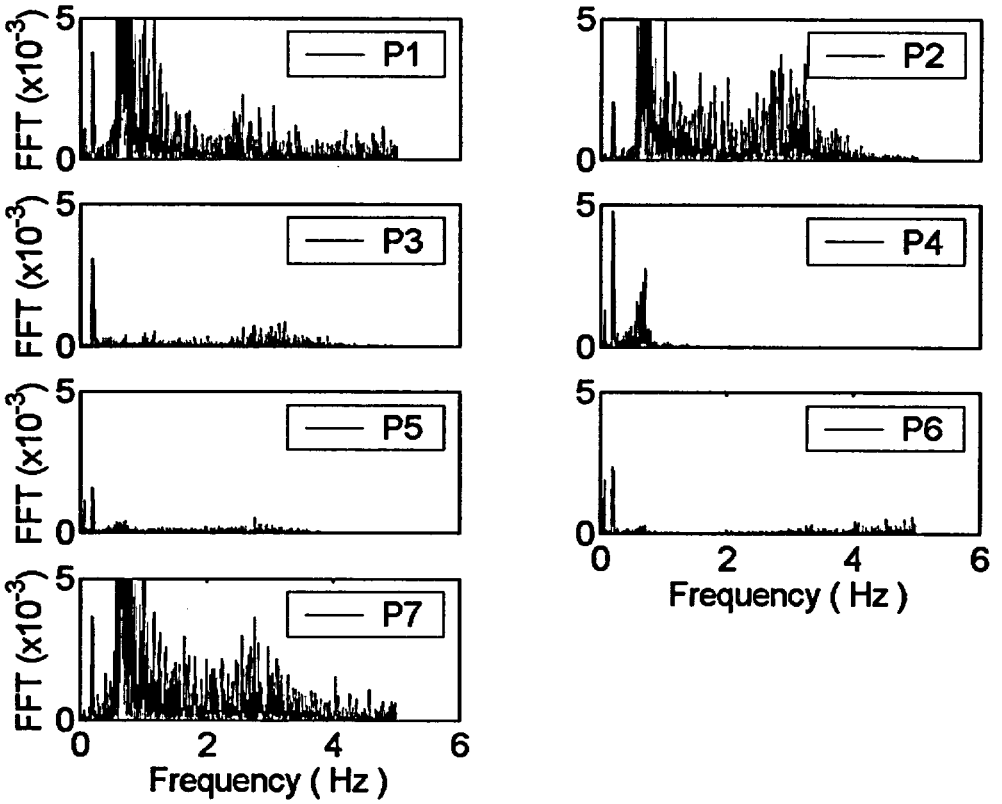

Figure A13.13. FFT of pressure time series at q = 1.128 MW/m^2.

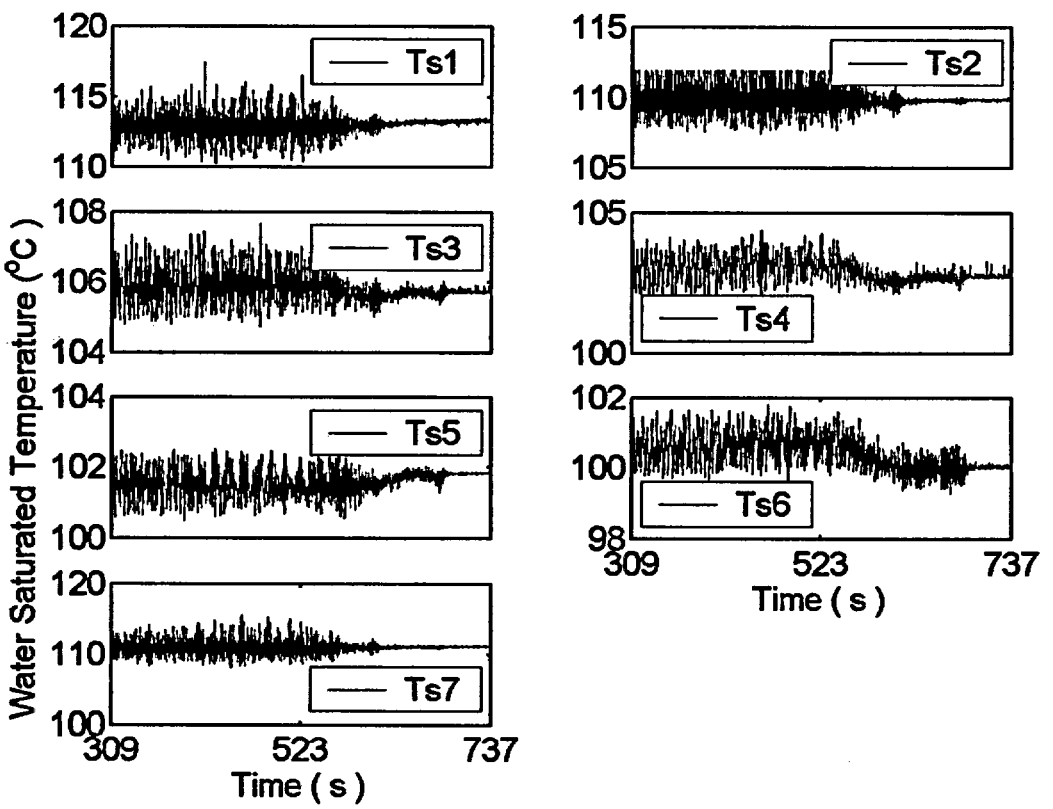

Figure A13.14. Water saturation temperature calculated from local pressure data at q = 1.128 MW/m^2.

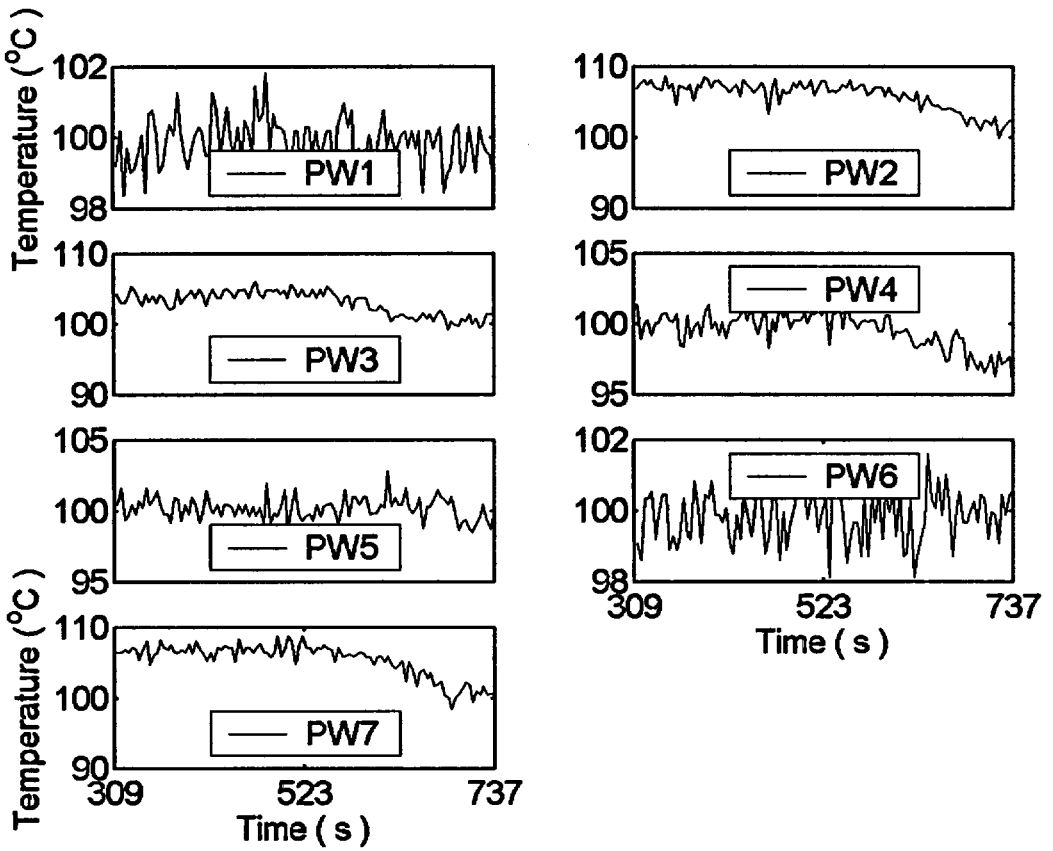

Figure A13.15. Water temperature measured at location of pressure transducer at q = 1.128 MW/m^2.

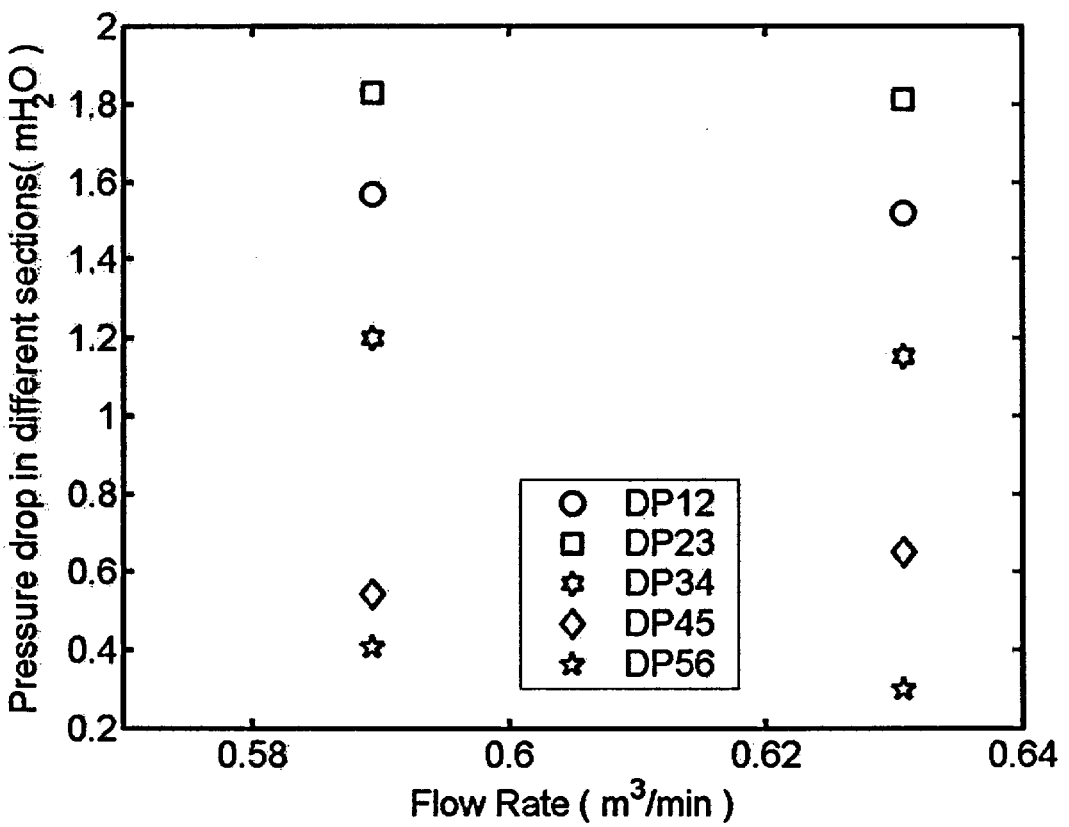

Figure A13.16. Pressure drop vs. flow rate at different heat fluxes.

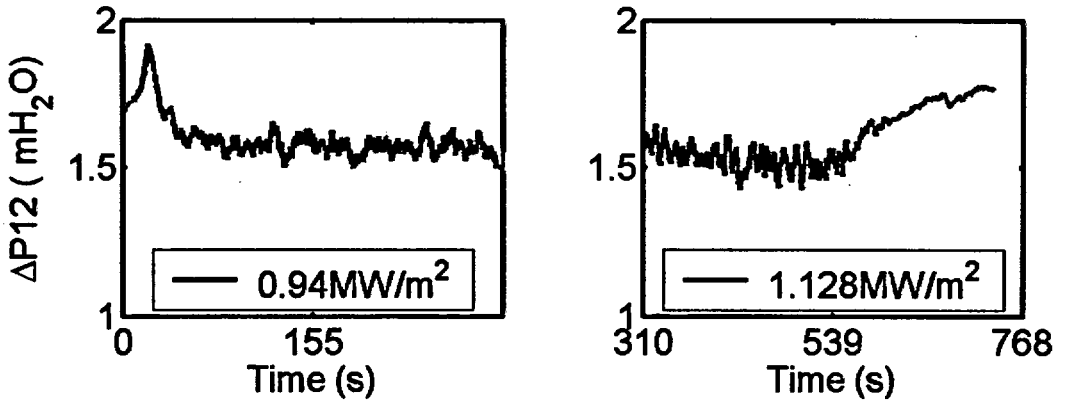

Figure A13.17. Differential Pressure ΔP12 at different heat fluxes.

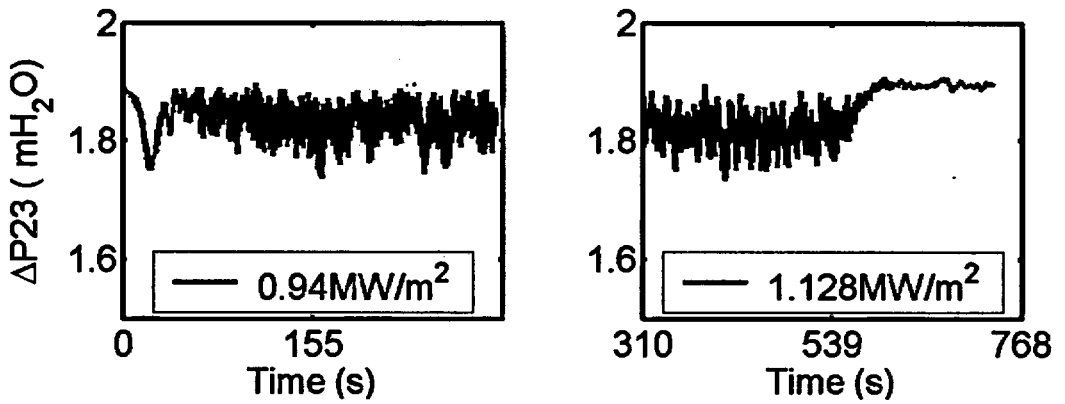

Figure A13.18. Differential Pressure ΔP23 at different heat fluxes.

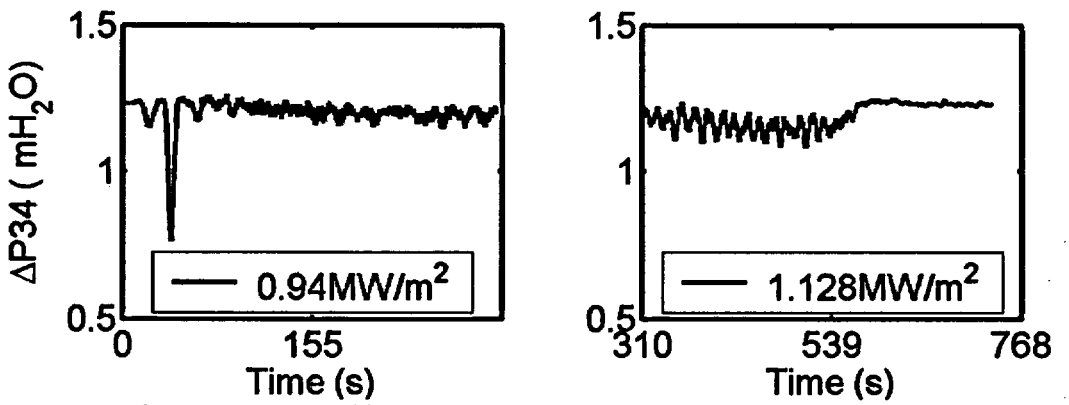

Figure A13.19. Differential Pressure ΔP34 at different heat fluxes.

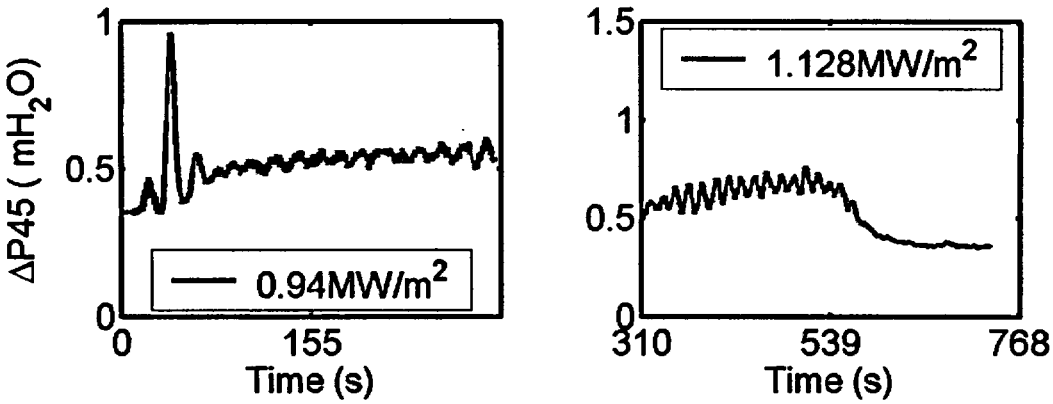

Figure A13.20. Differential Pressure ΔP45 at different heat fluxes.

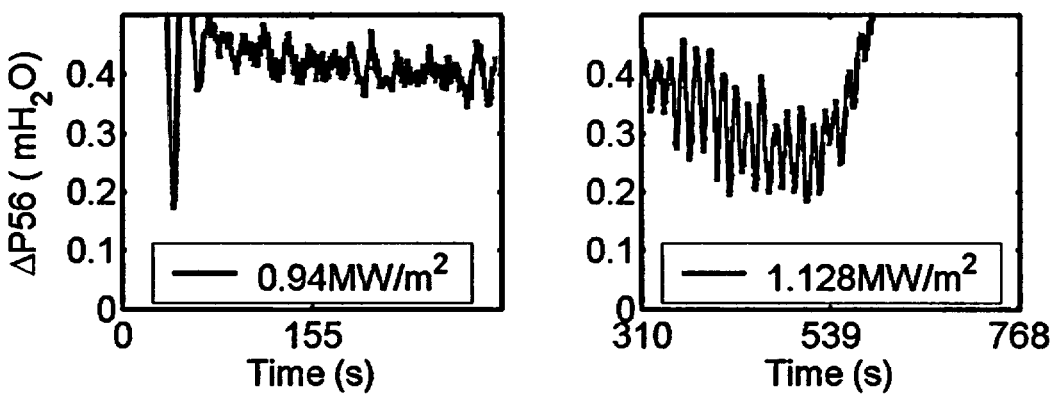

Figure A13.21. Differential Pressure ΔP56 at different heat fluxes.

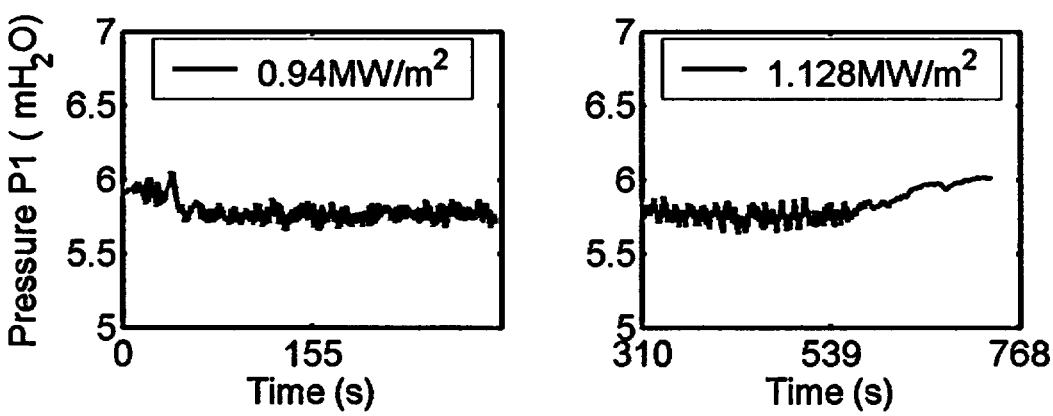

Figure A13.22. Pressure P1 at different heat fluxes.

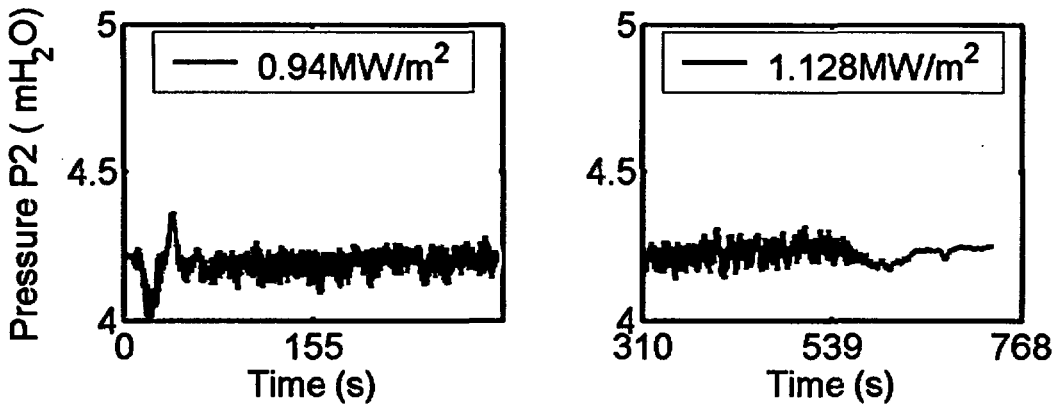

Figure A13.23. Pressure P2 at different heat fluxes.

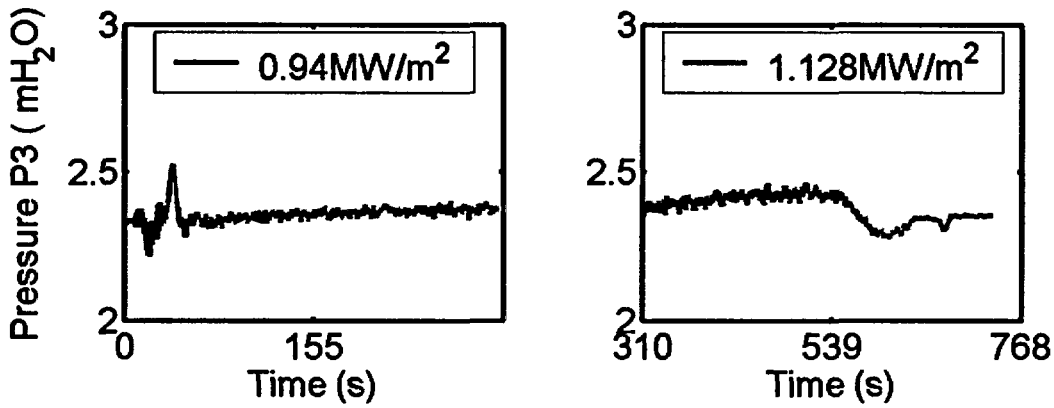

Figure A13.24. Pressure P3 at different heat fluxes.

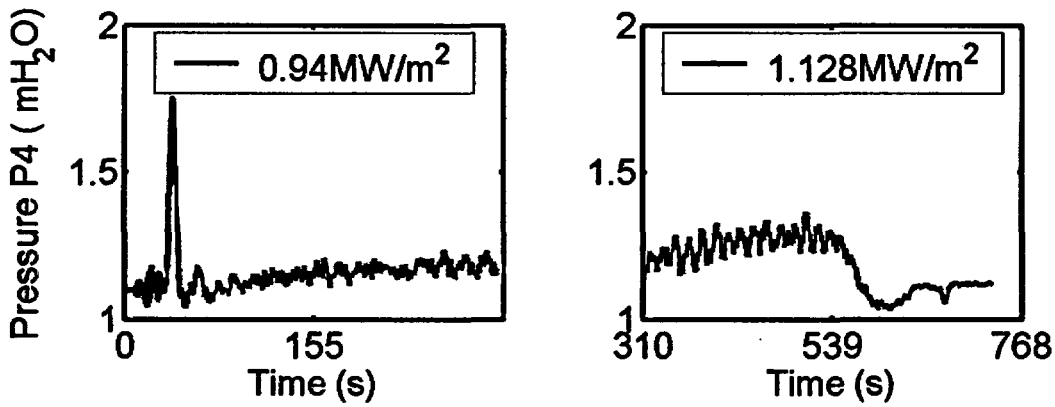

Figure A13.25. Pressure P4 at different heat fluxes.

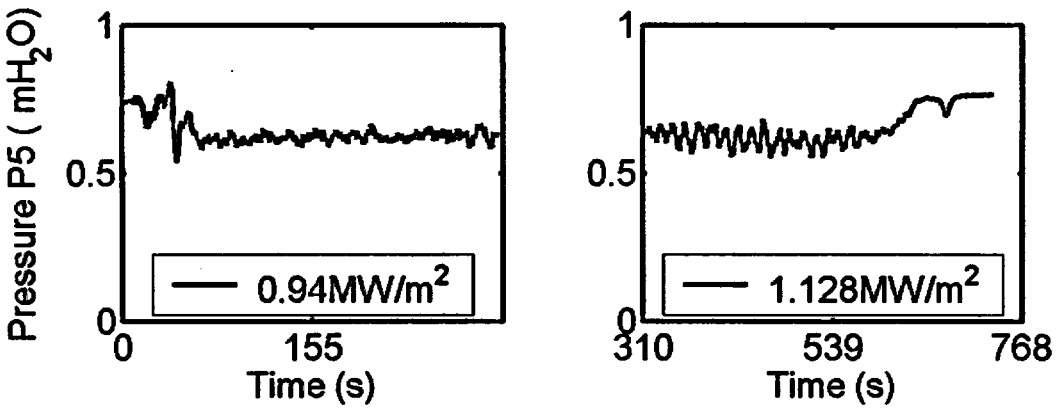

Figure A13.26. Pressure P5 at different heat fluxes.

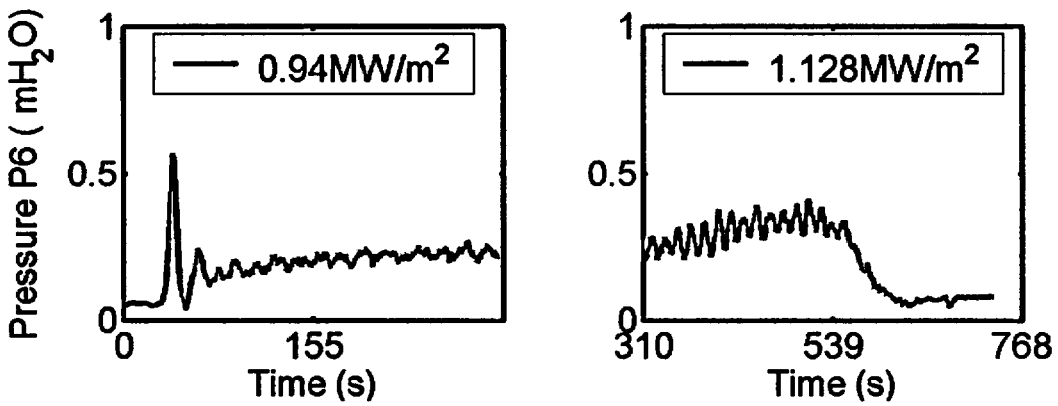

Figure A13.27. Pressure P6 at different heat fluxes.

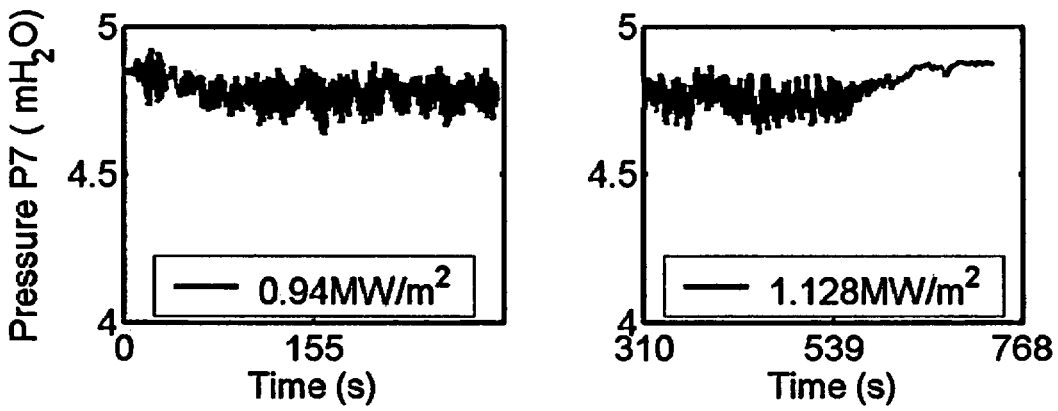

Figure A13.28. Pressure P7 at different heat fluxes.

ID #14

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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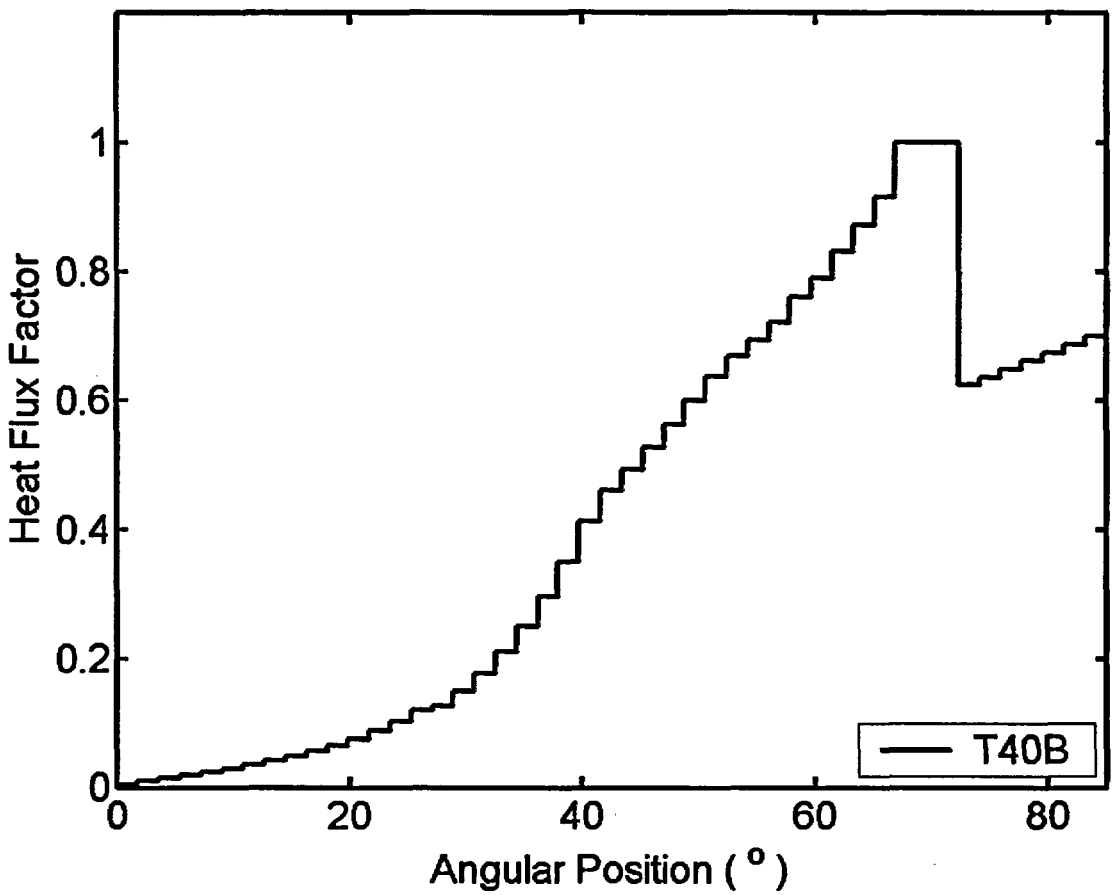

Figure A14.1. Power shape.

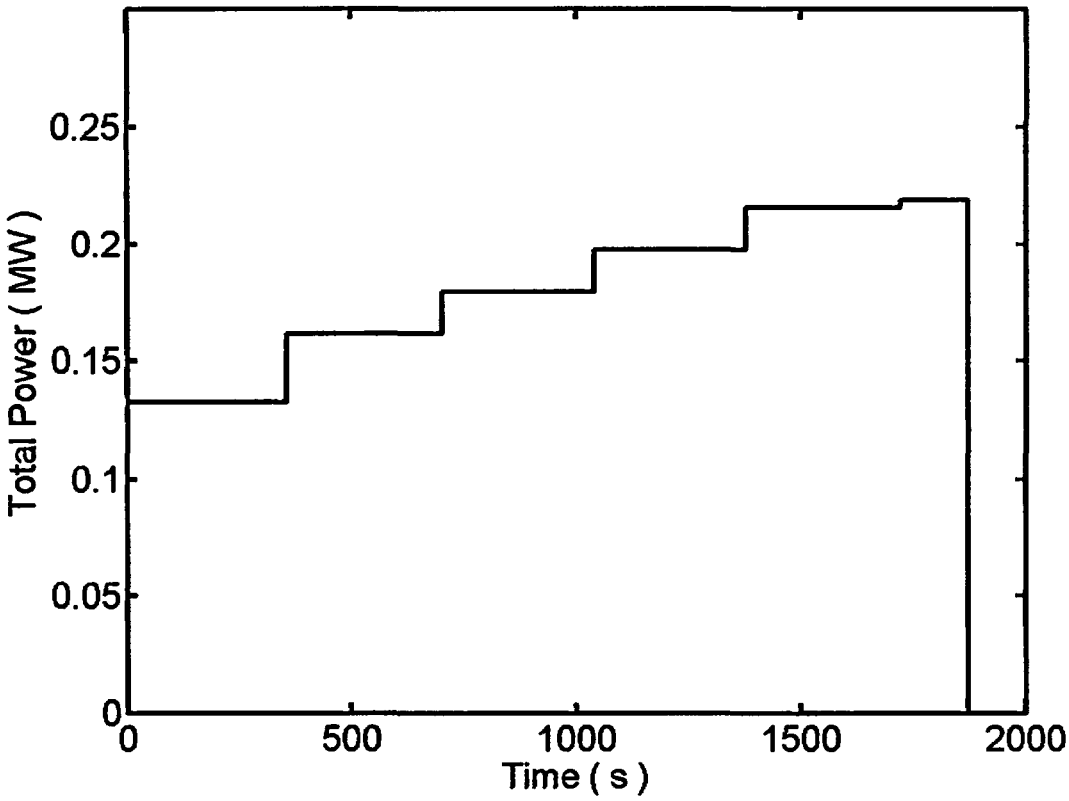

Figure A14.2. Total input power history.

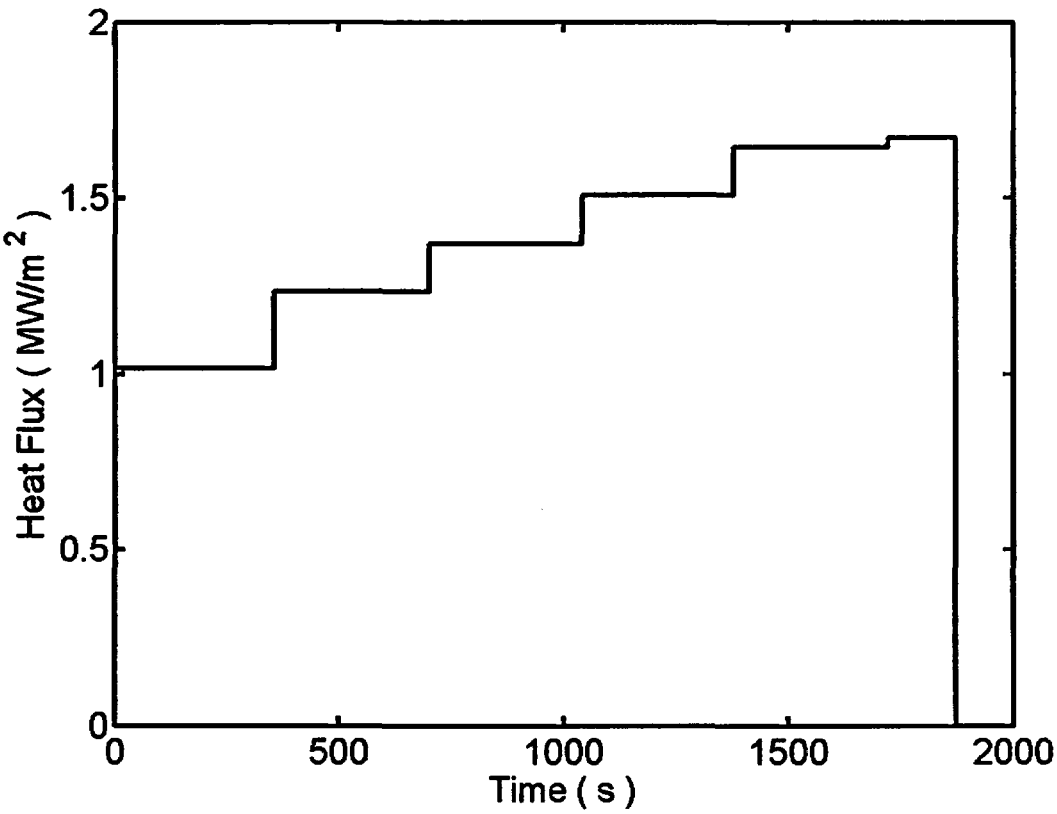

Figure A14.3. Heat flux history.

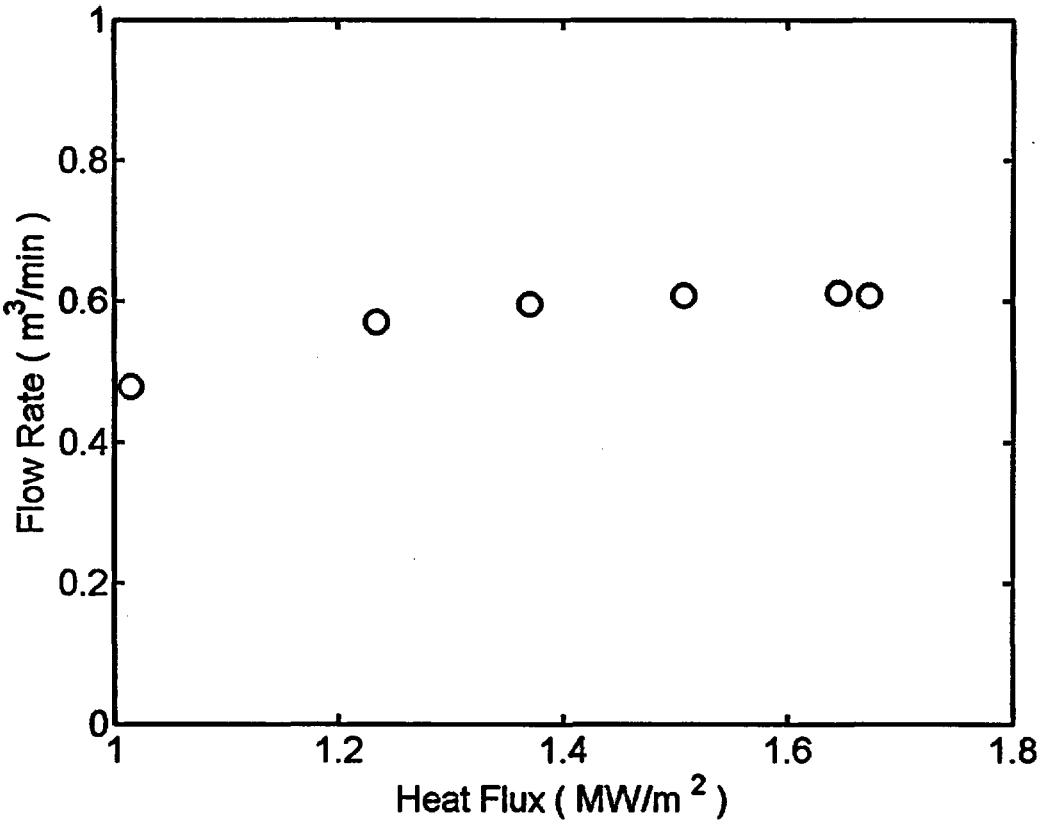

Figure A14.4. Flow rate vs. heat fluxes.

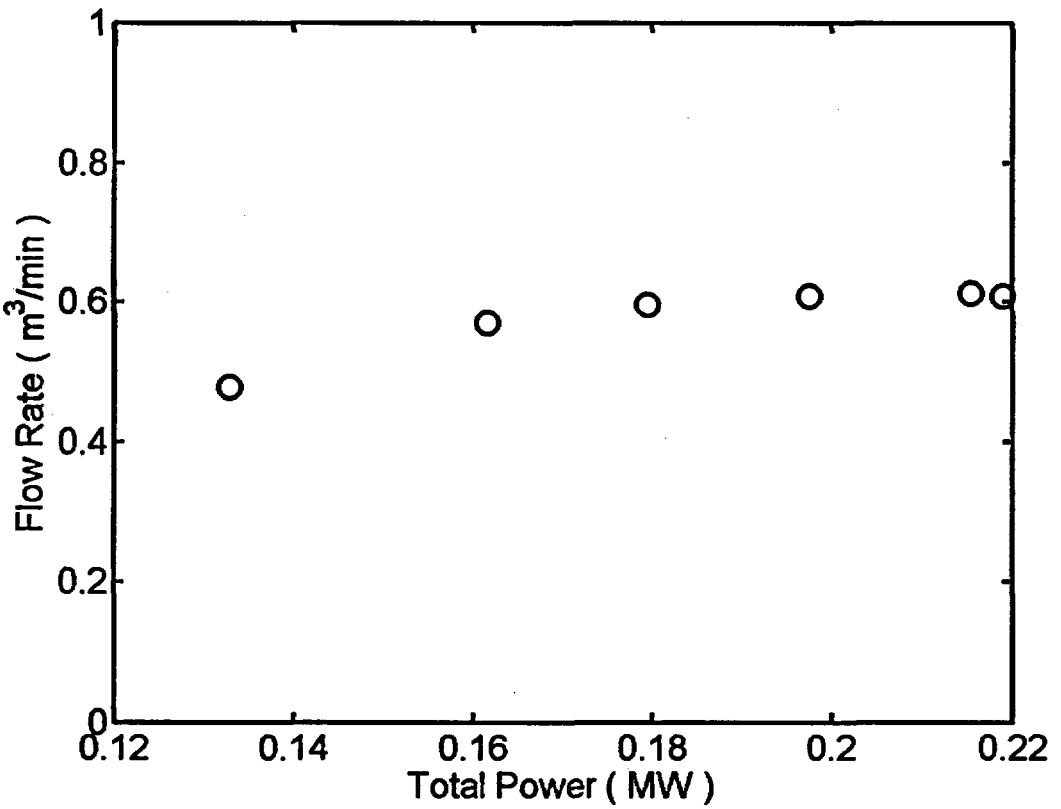

Figure A14.5. Flow rate vs. total input power.

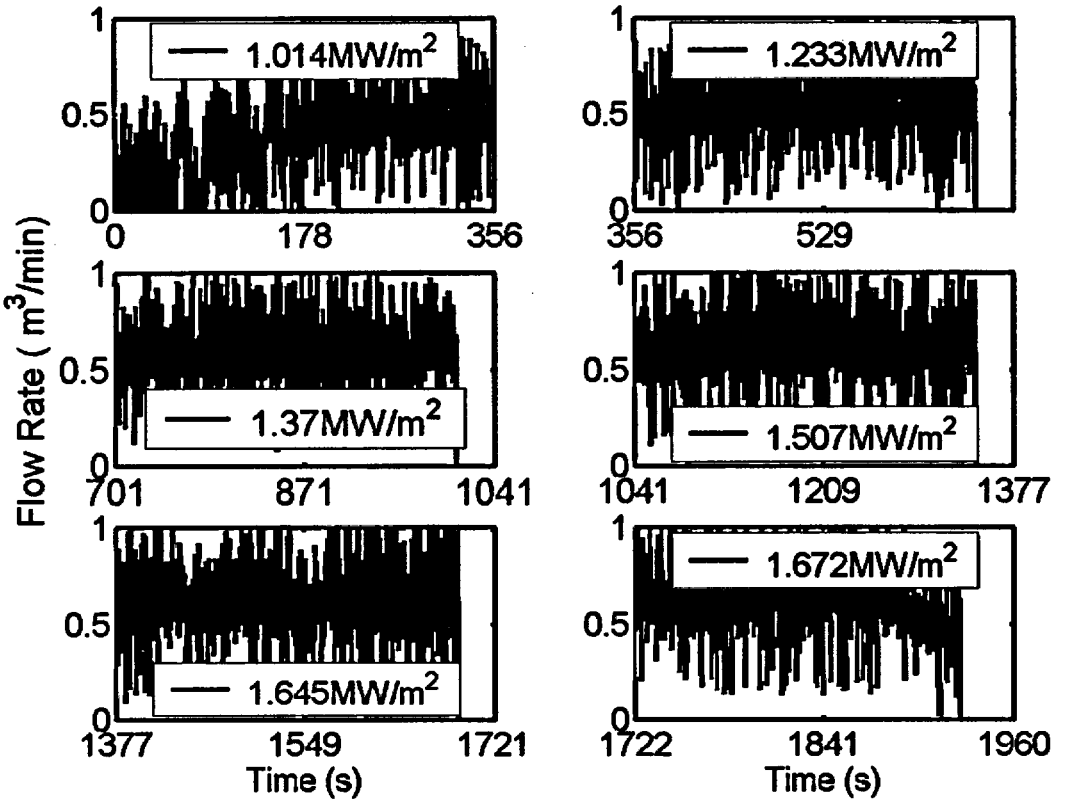

Figure A14.6. Flow rates at different heat fluxes.

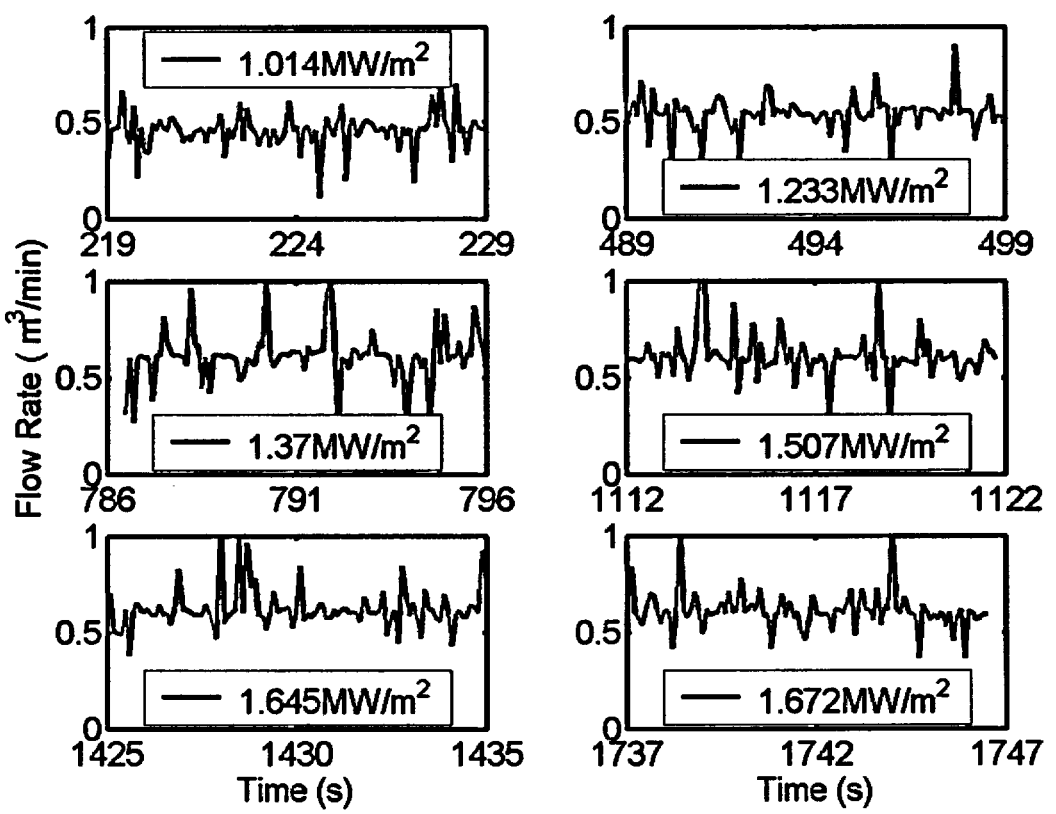

Figure A14.7. Flow rates at different heat fluxes at selected time intervals.

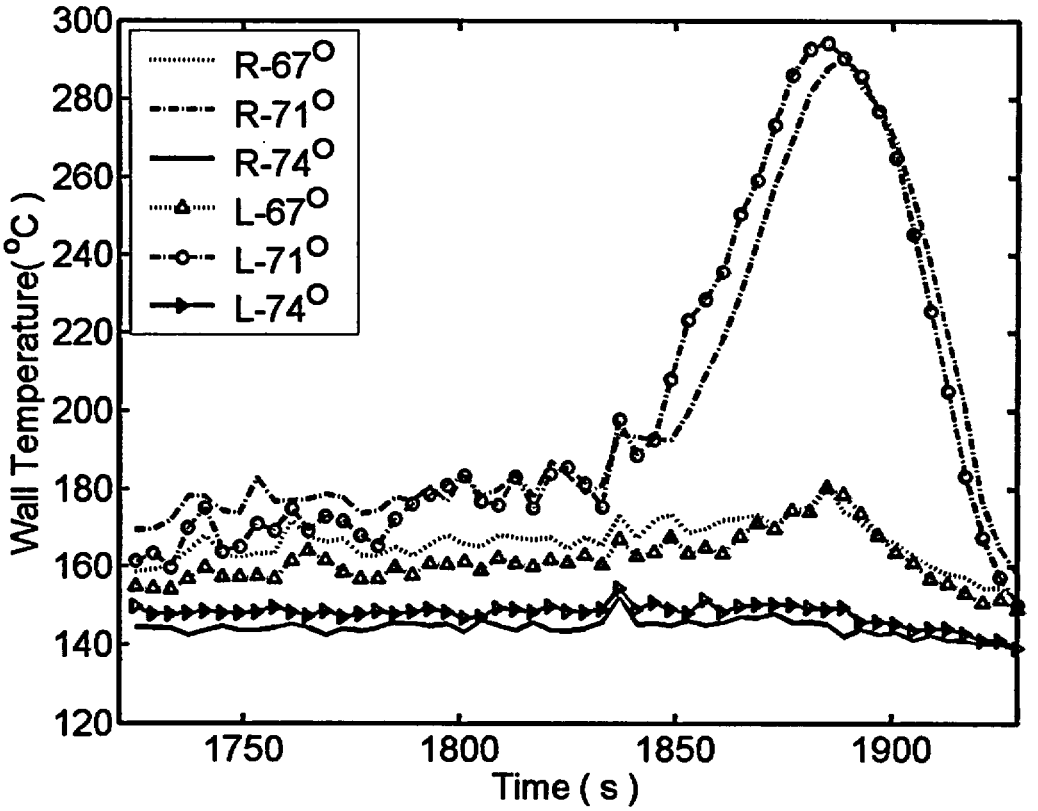

Figure A14.8. Temperature history at CHF.

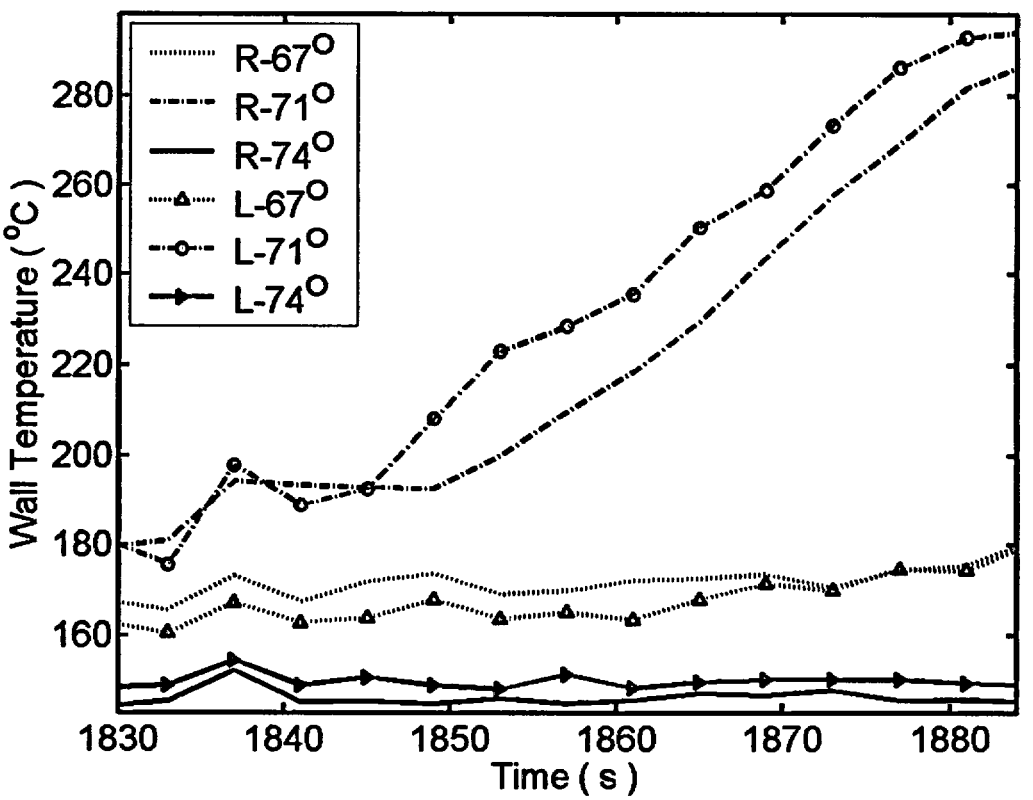

Figure A14.9. Temperature history at CHF in detail.

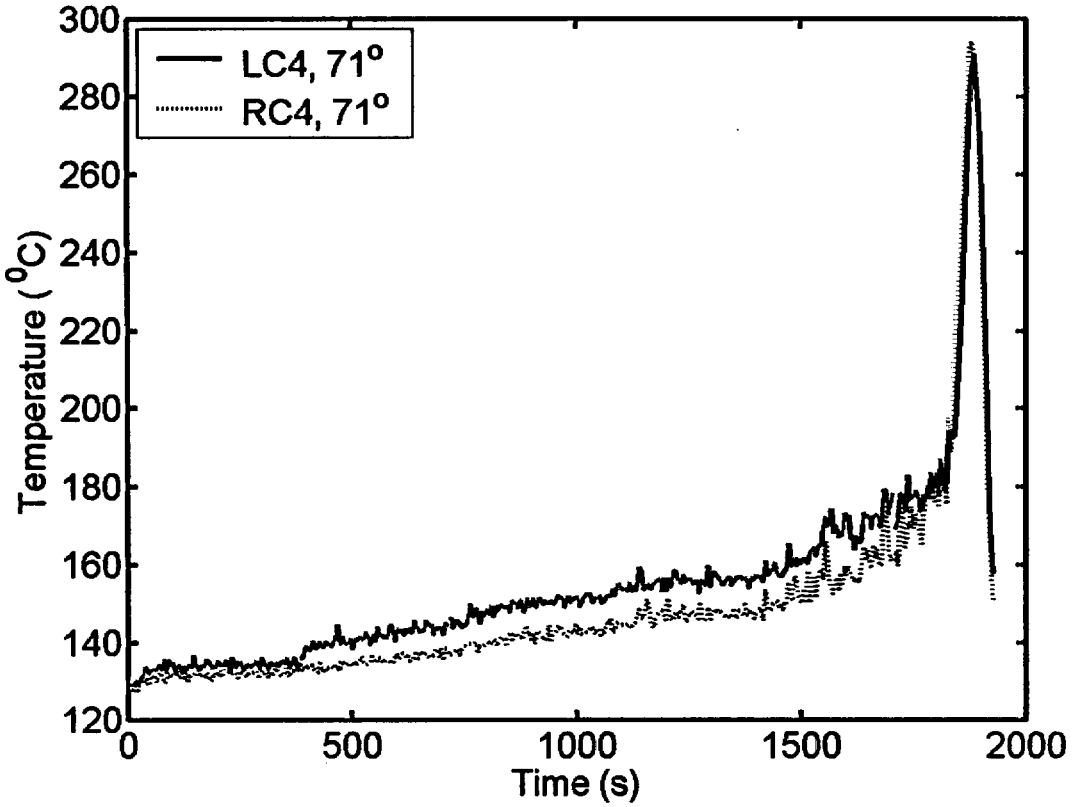

Figure A14.10. Wall temperature history measured by two thermocouples LC4 and RC4.

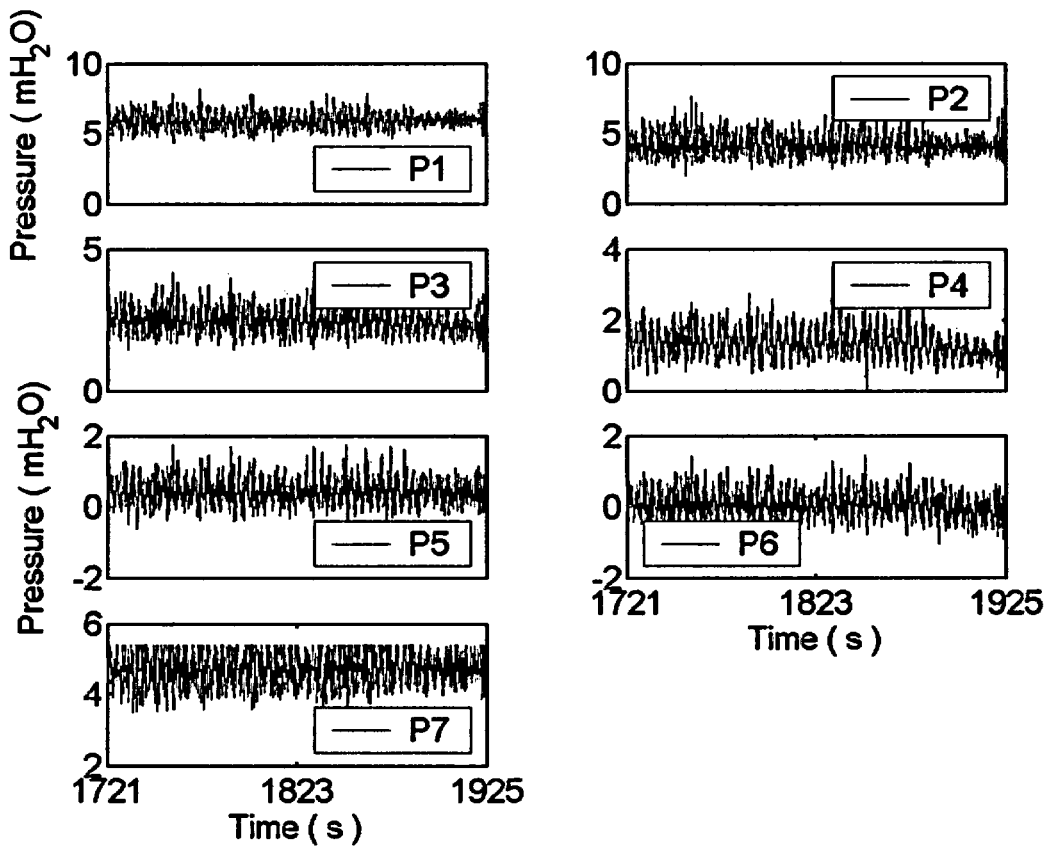

Figure A14.11. Pressure transducer data at q = 1.672 MW/m^2.

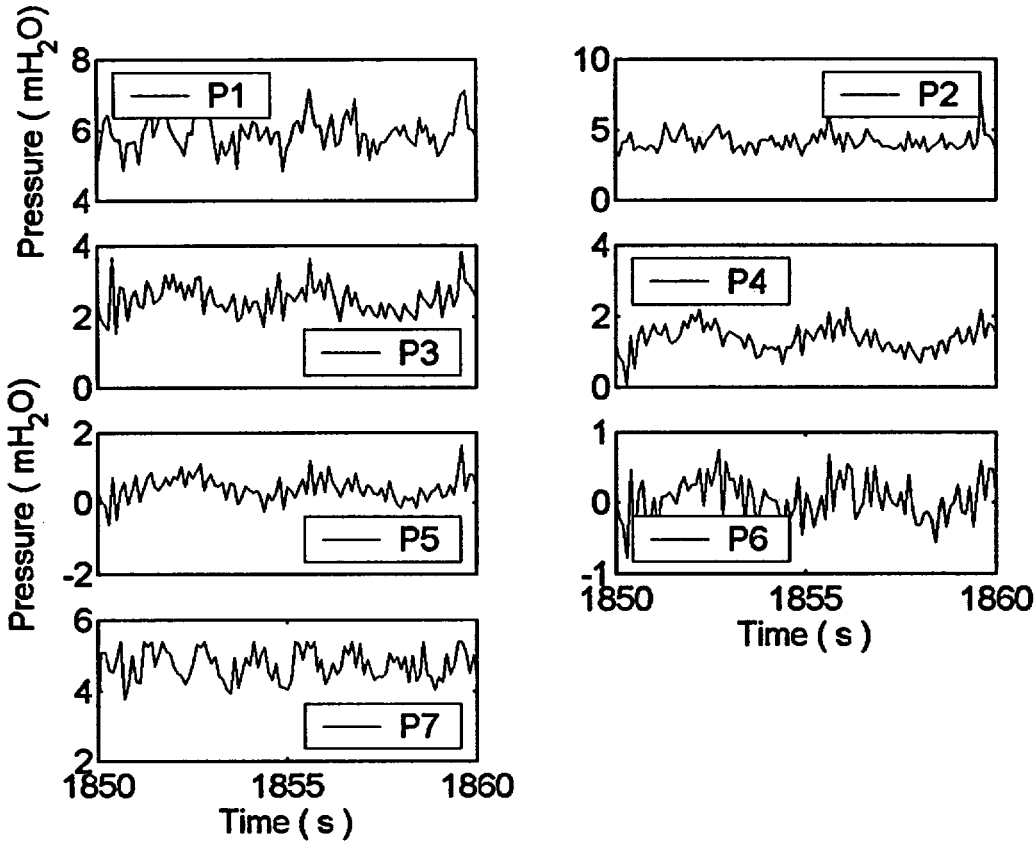

Figure A14.12. Pressure data in detail at q = 1.672 MW/m^2.

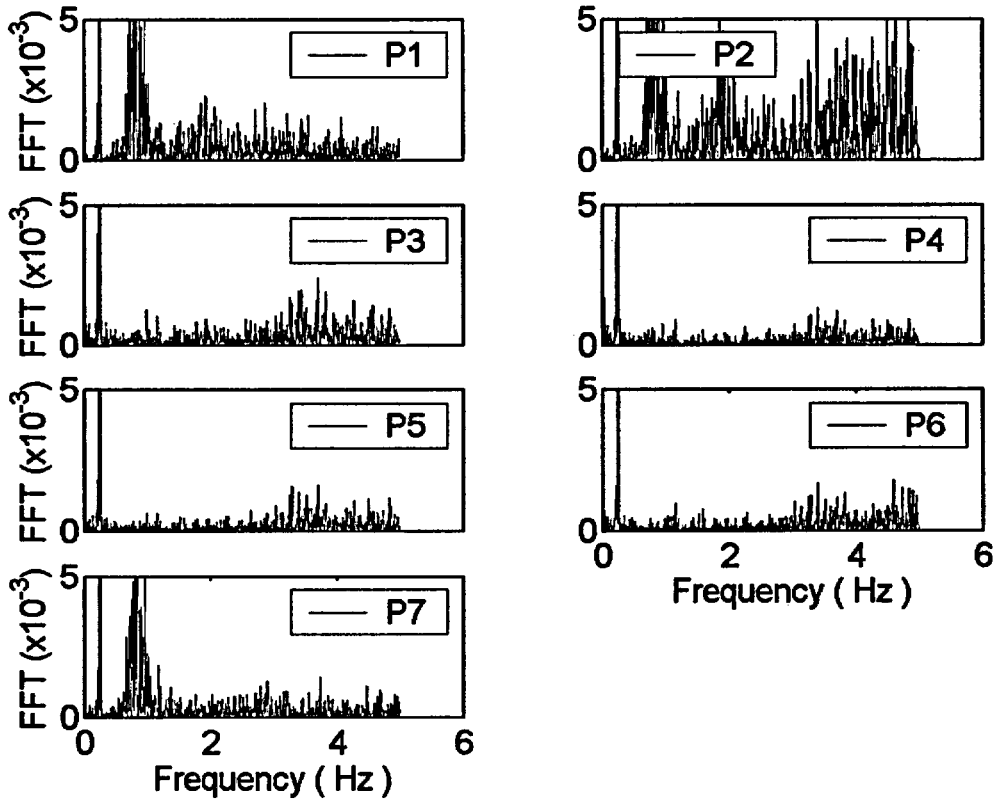

Figure A14.13. FFT of pressure time series at q = 1.672 MW/m^2.

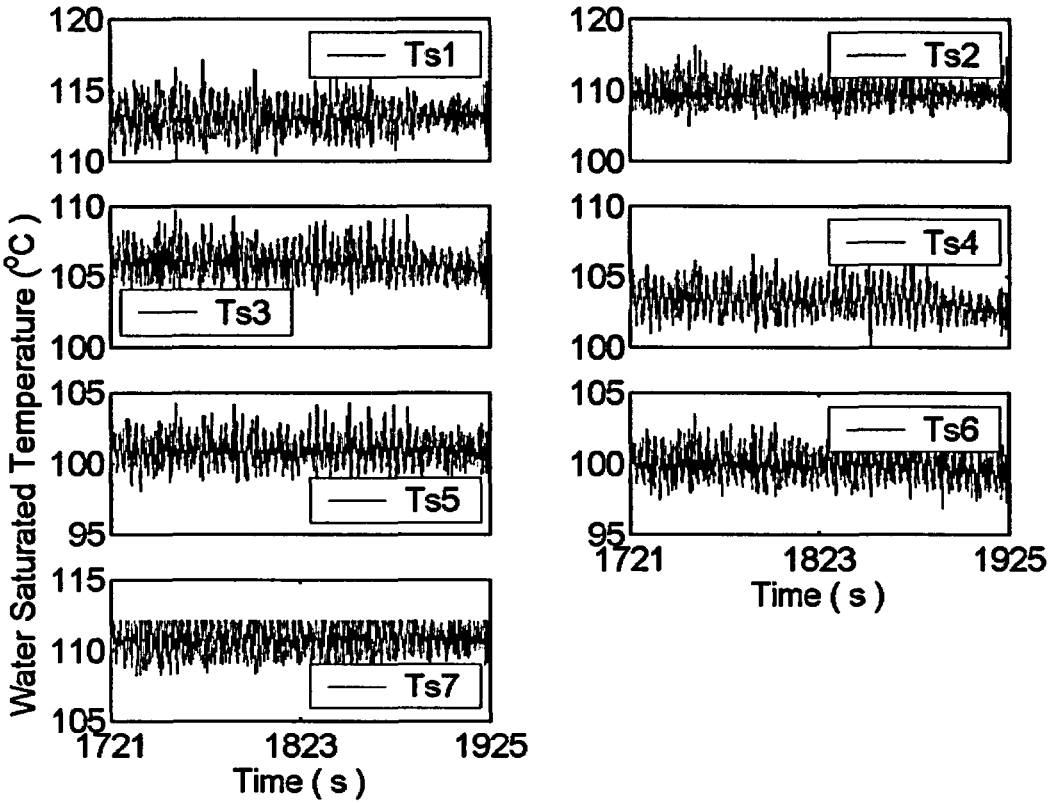

Figure A14.14. Water saturation temperature calculated from local pressure data at q = 1.672 MW/m^2.

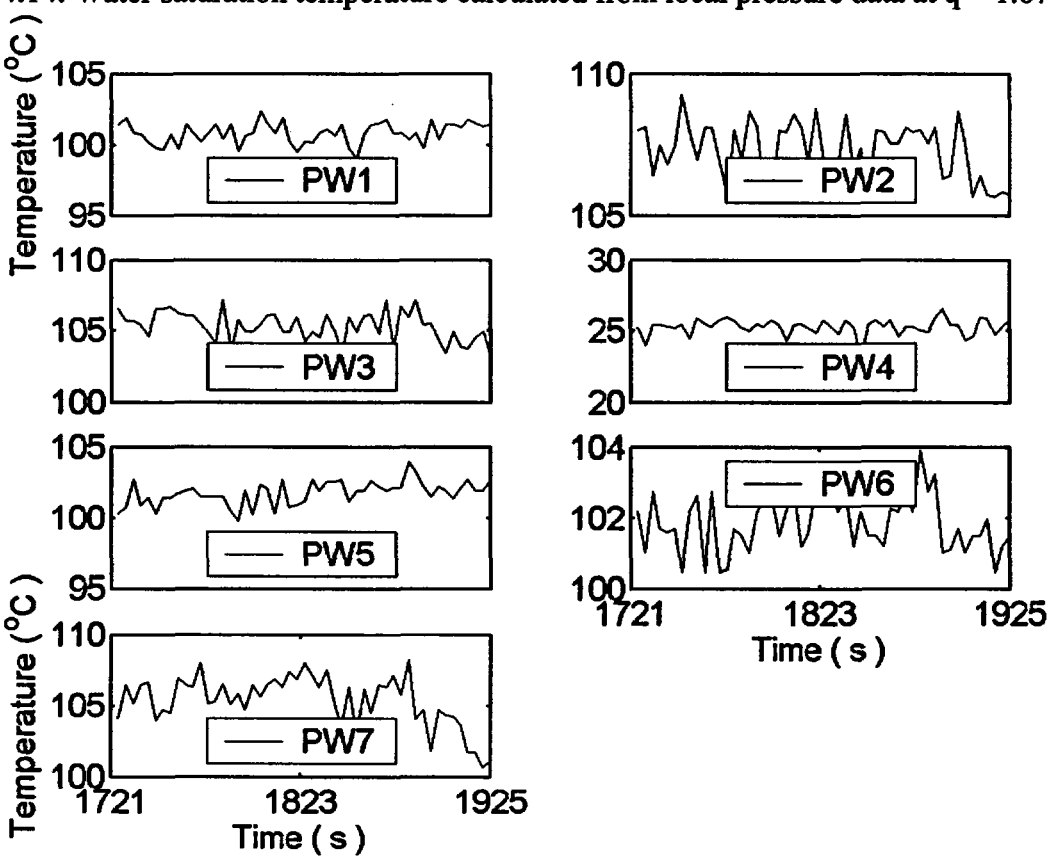

Figure A14.15. Water temperature measured at location of pressure transducer at q = 1.672 MW/m^2.

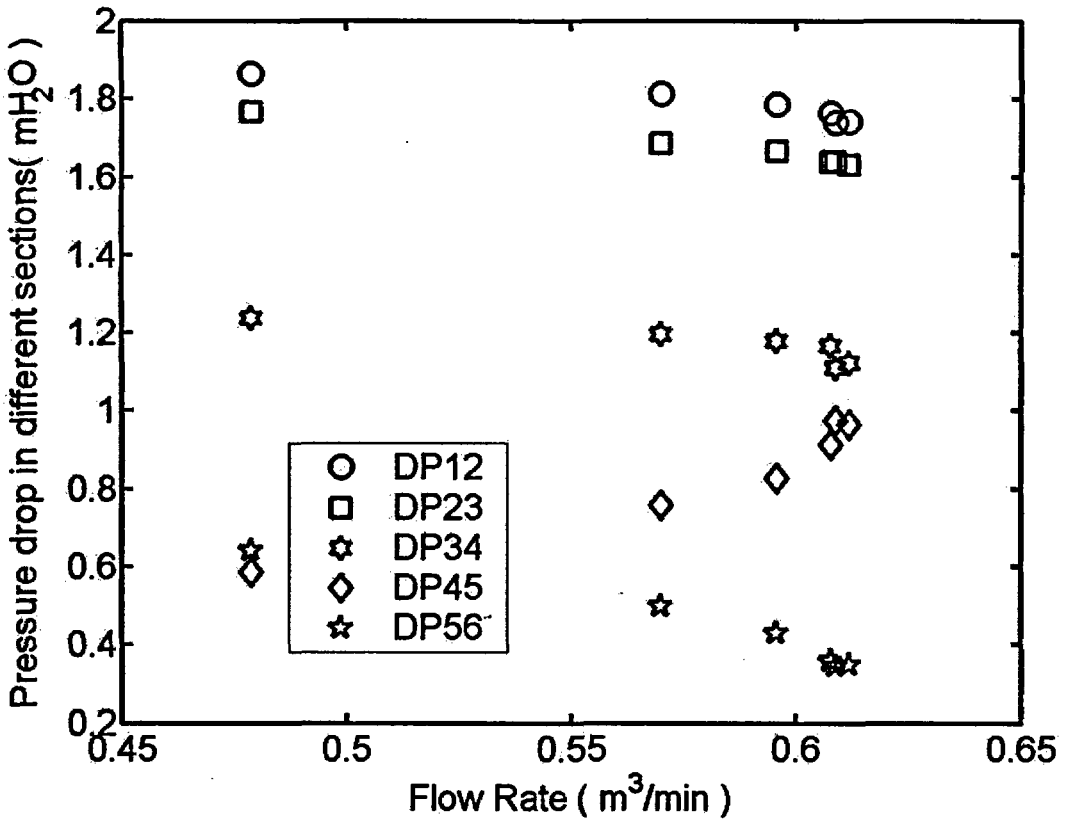

Figure A14.16. Pressure drop vs. flow rate at different heat fluxes.

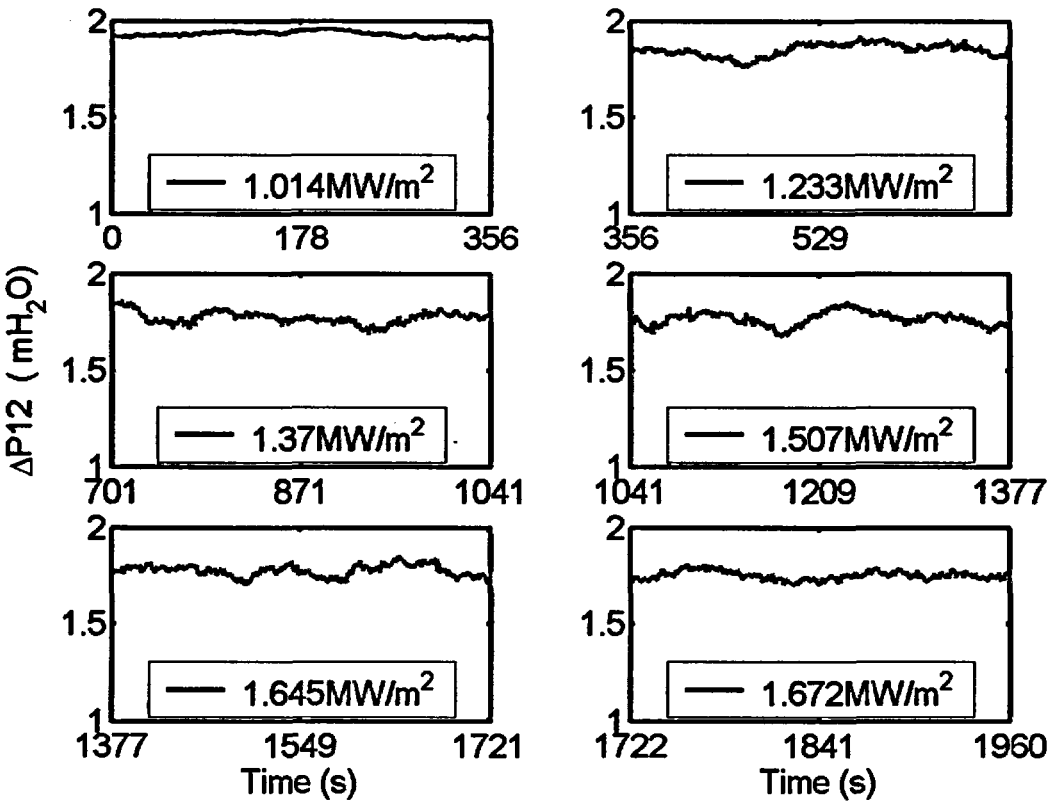

Figure A14.17. Differential Pressure ΔP12 at different heat fluxes.

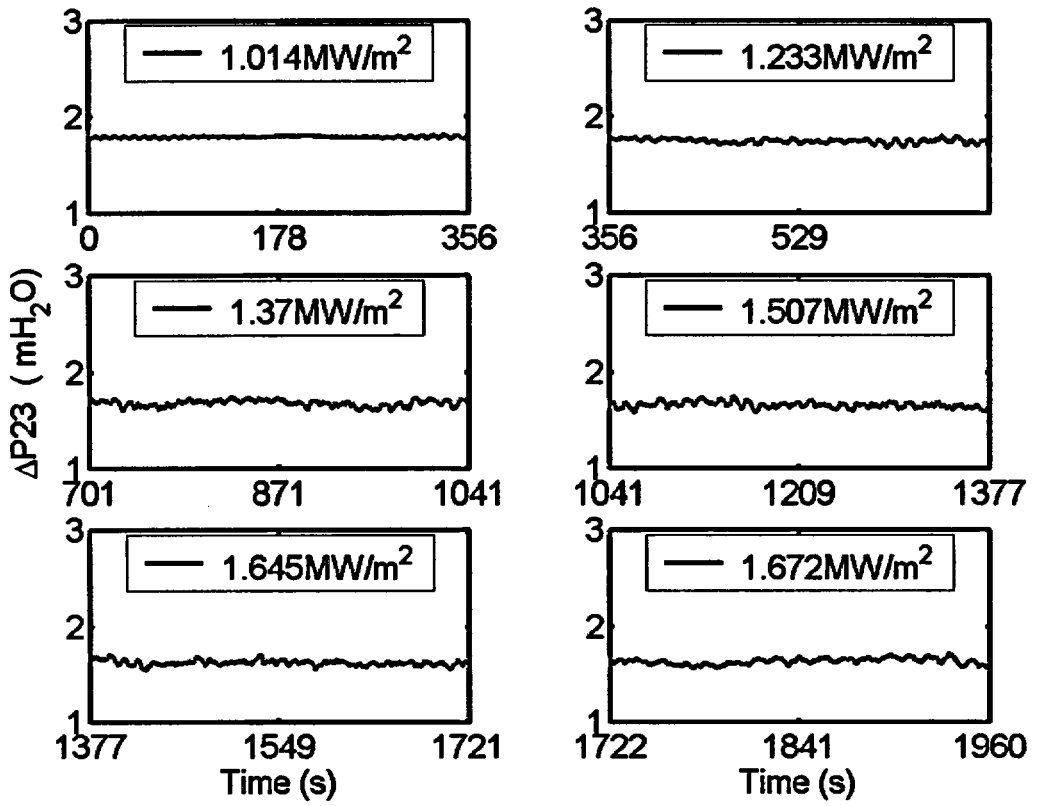

Figure A14.18. Differential Pressure ΔP23 at different heat fluxes.

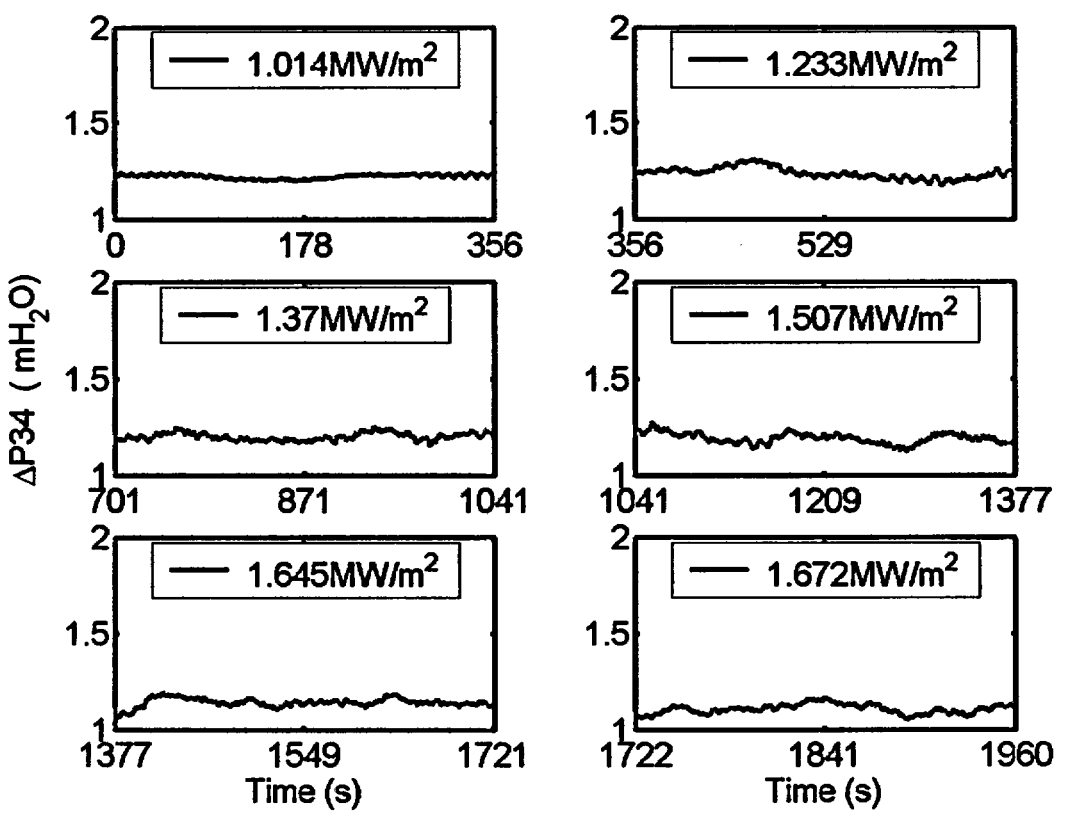

Figure A14.19. Differential Pressure ΔP34 at different heat fluxes.

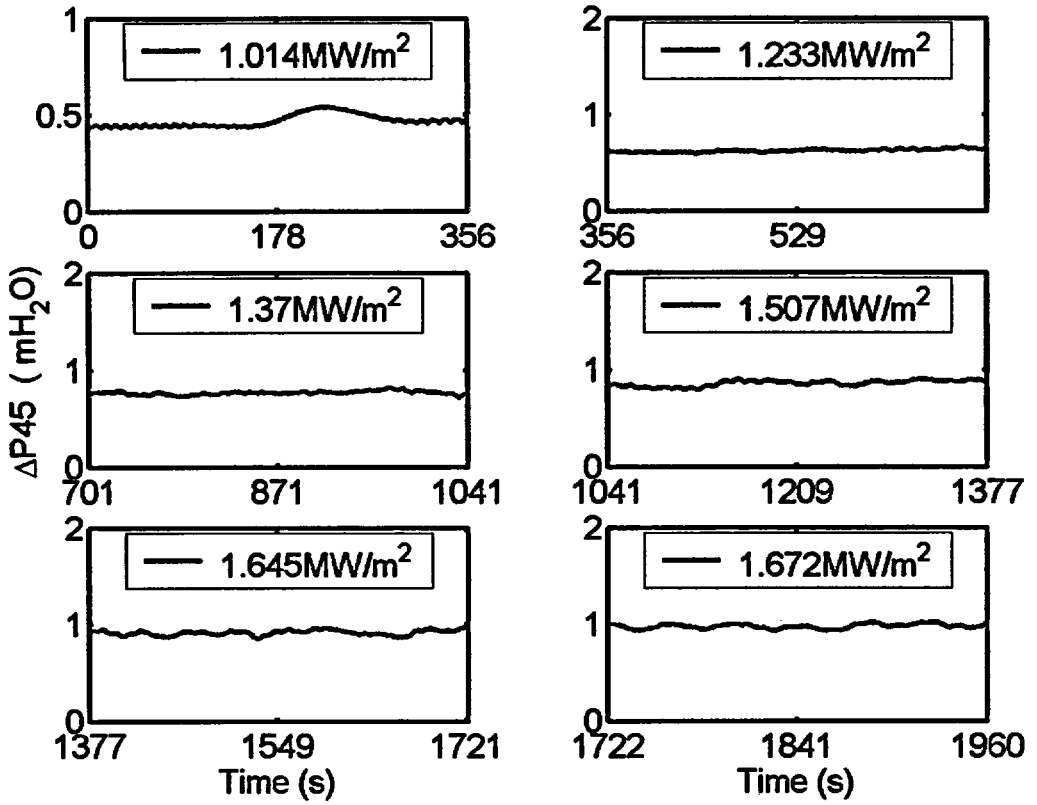

Figure A14.20. Differential Pressure ΔP45 at different heat fluxes.

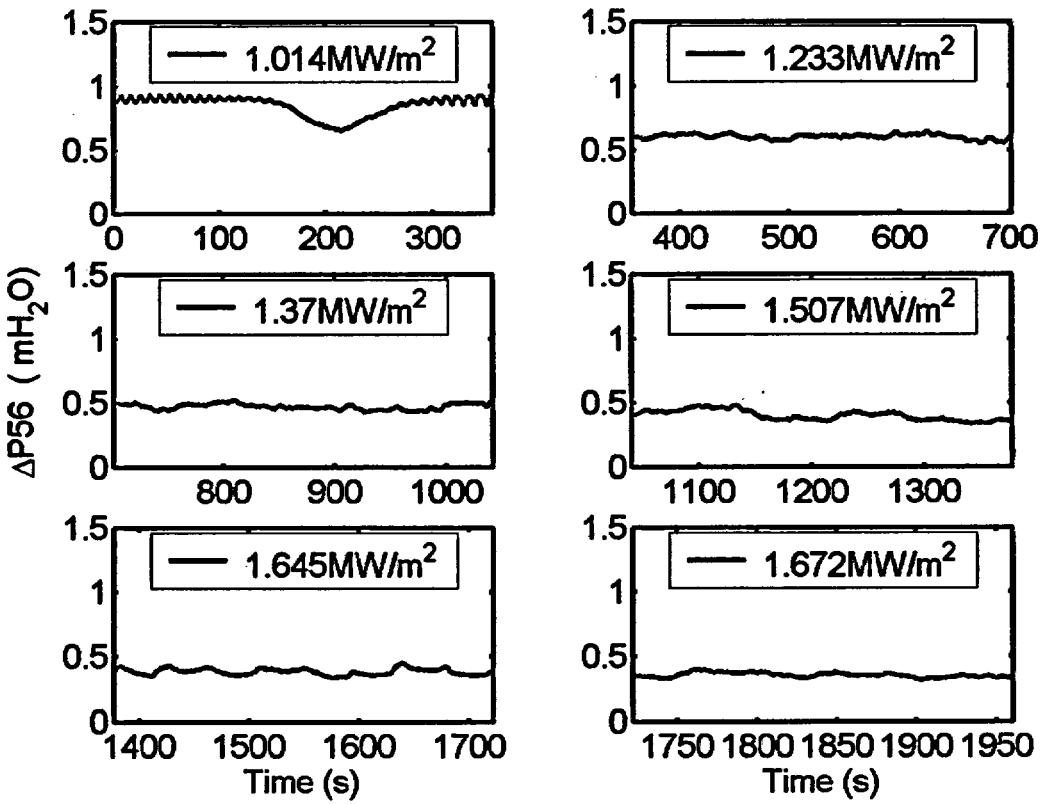

Figure A14.21. Differential Pressure ΔP56 at different heat fluxes.

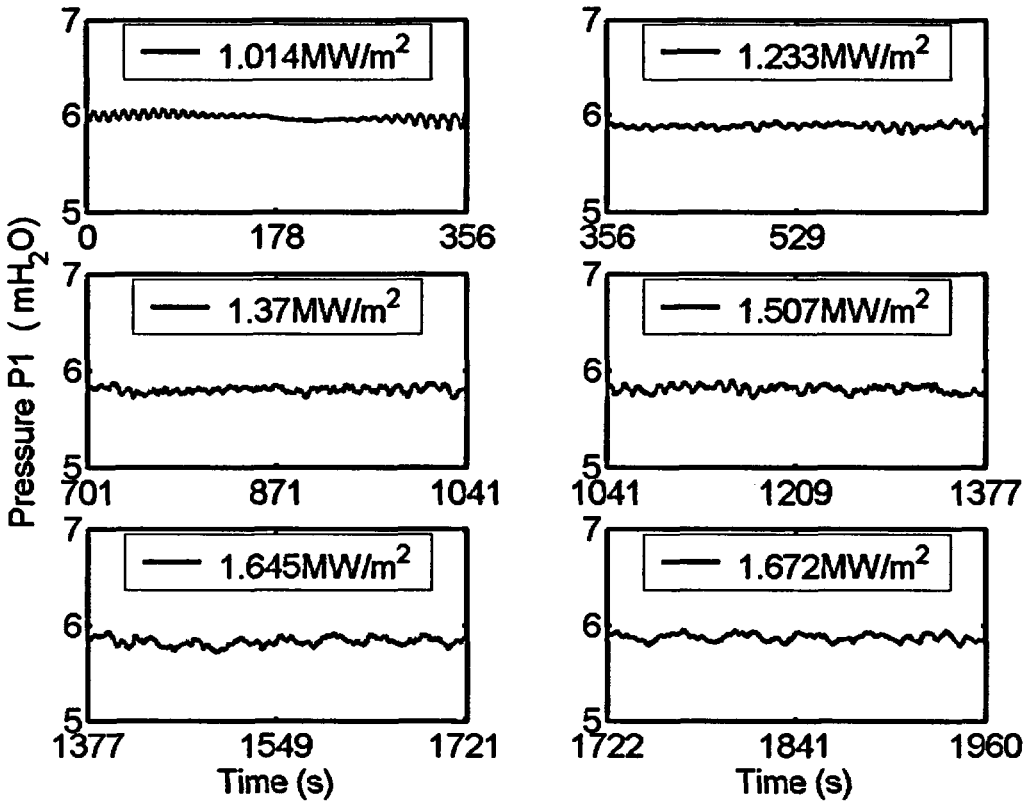

Figure A14.22. Pressure P1 at different heat fluxes.

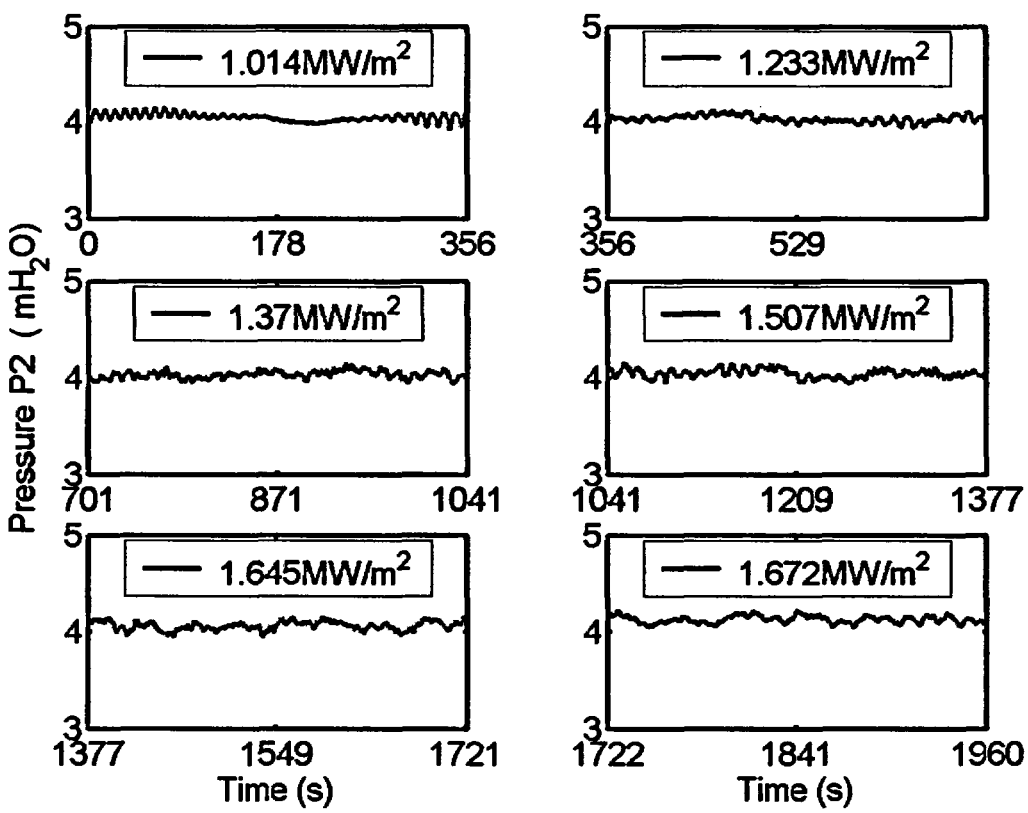

Figure A14.23. Pressure P2 at different heat fluxes.

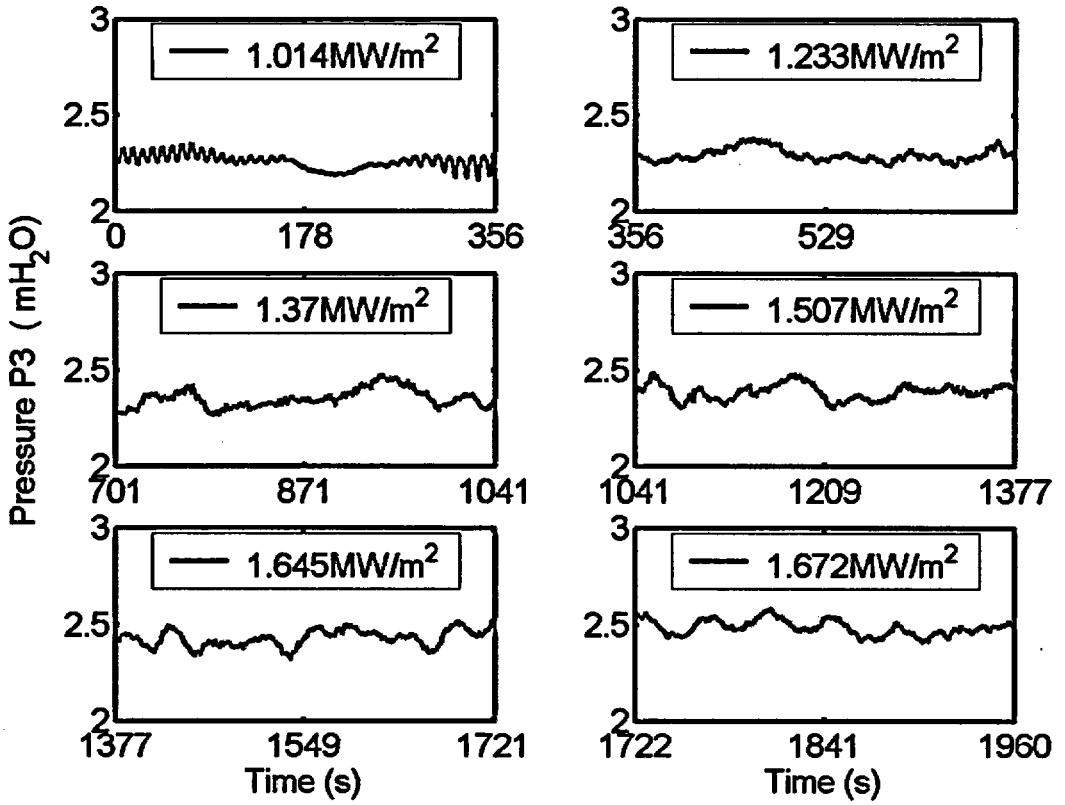

Figure A14.24. Pressure P3 at different heat fluxes.

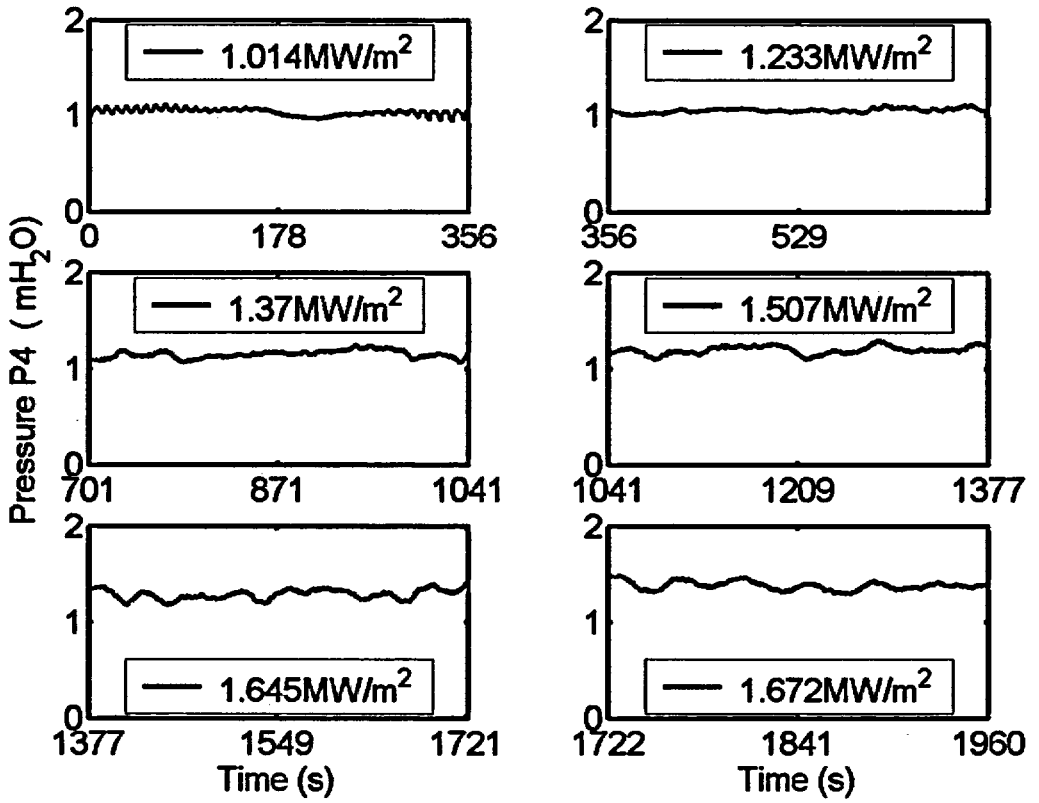

Figure A14.25. Pressure P4 at different heat fluxes.

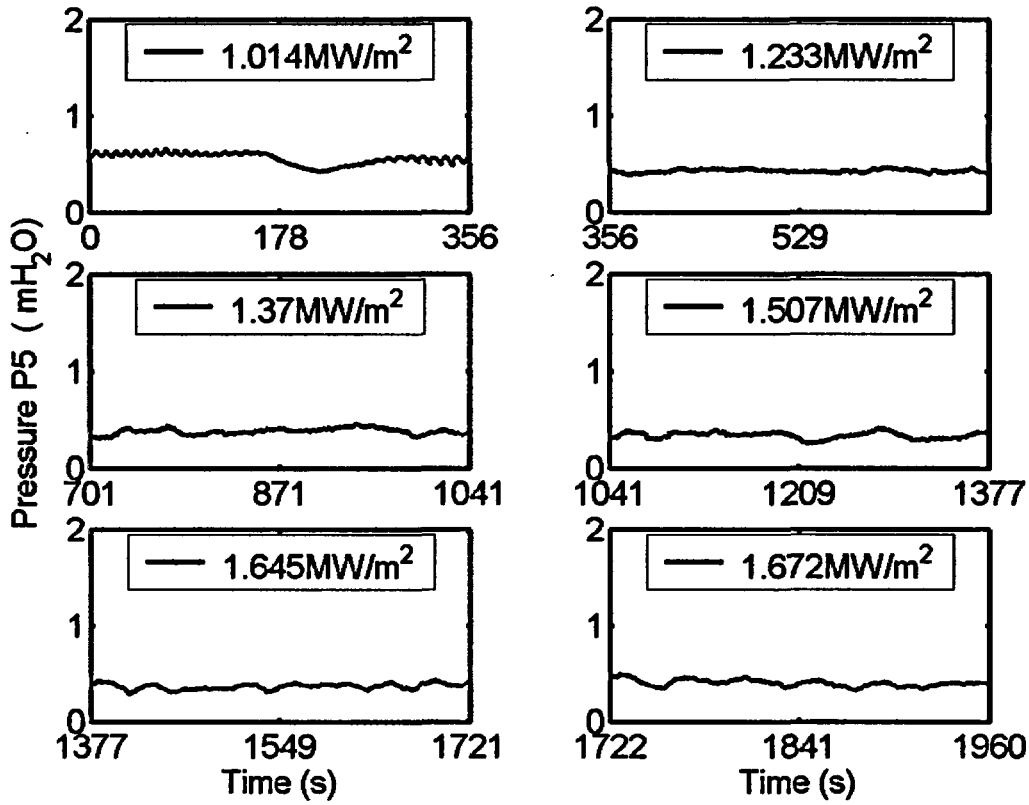

Figure A14.26. Pressure P5 at different heat fluxes.

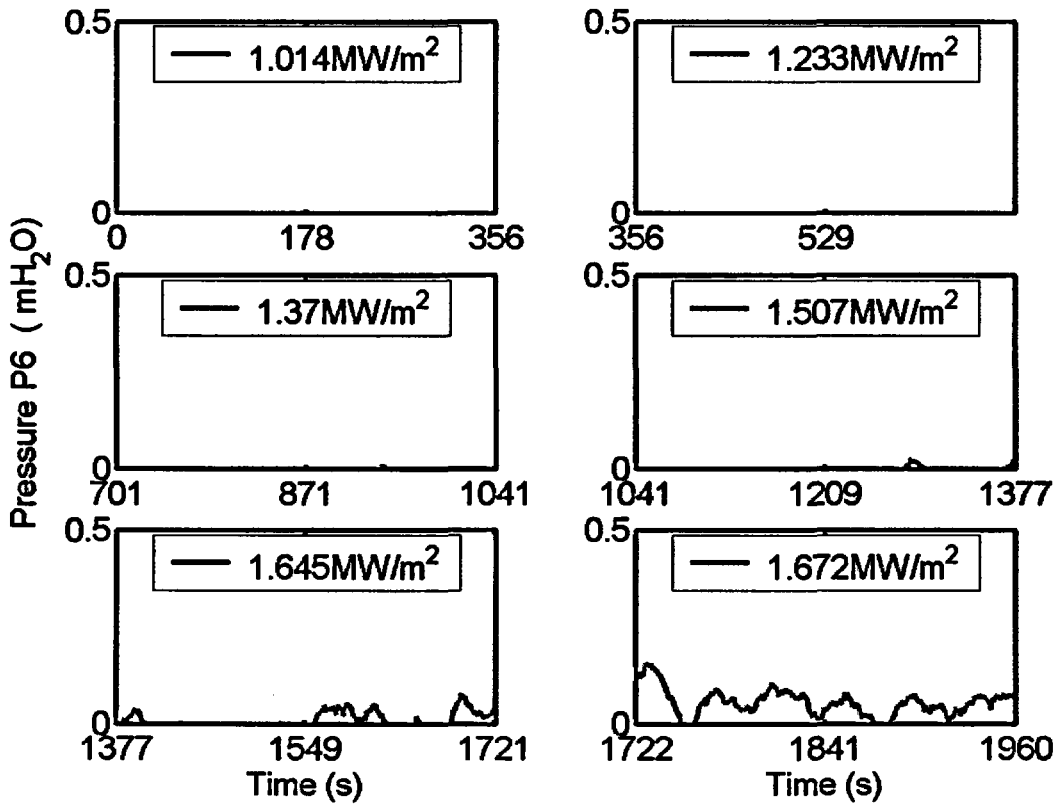

Figure A14.27. Pressure P6 at different heat fluxes.

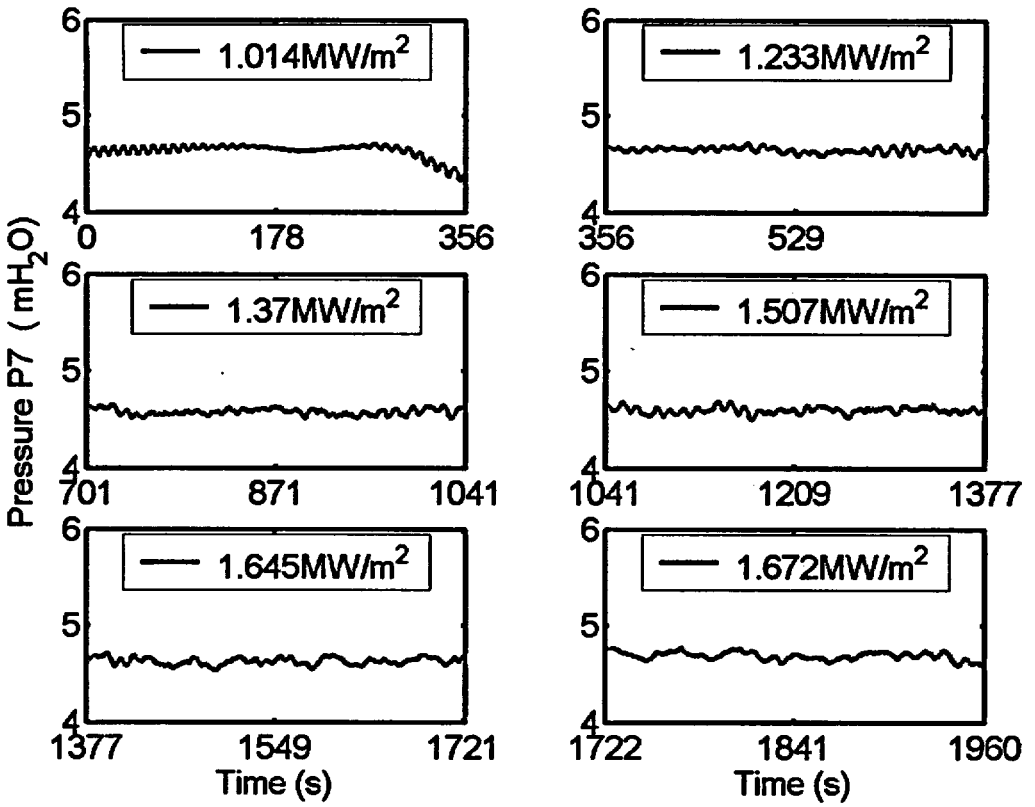

Figure A14.28. Pressure P7 at different heat fluxes.

ID #15

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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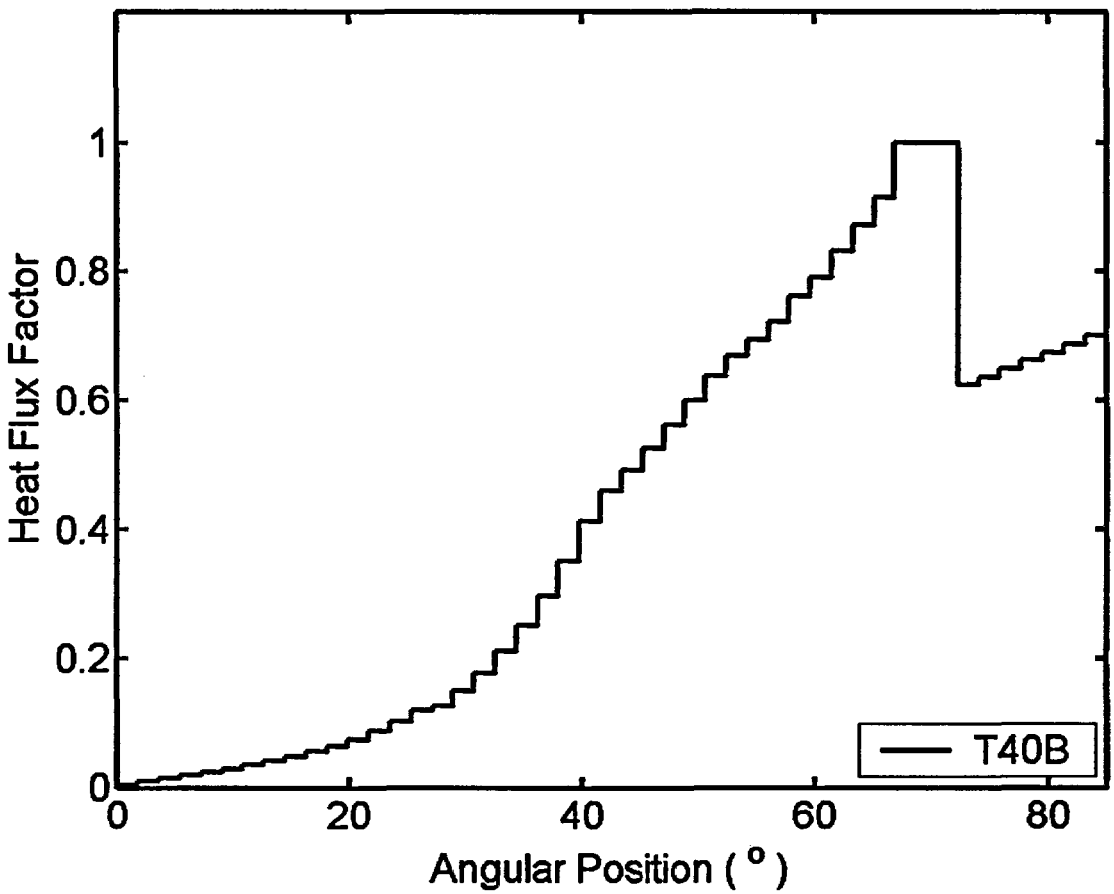

Figure A15.1. Power shape.

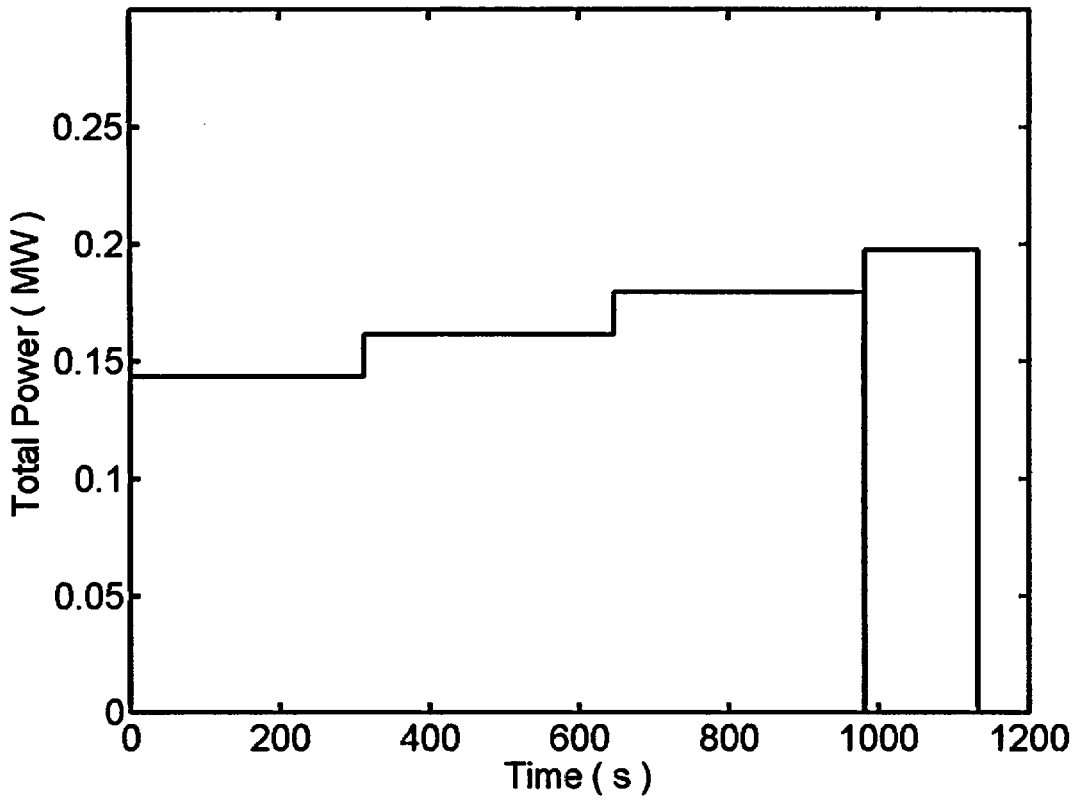

Figure A15.2. Total input power history.

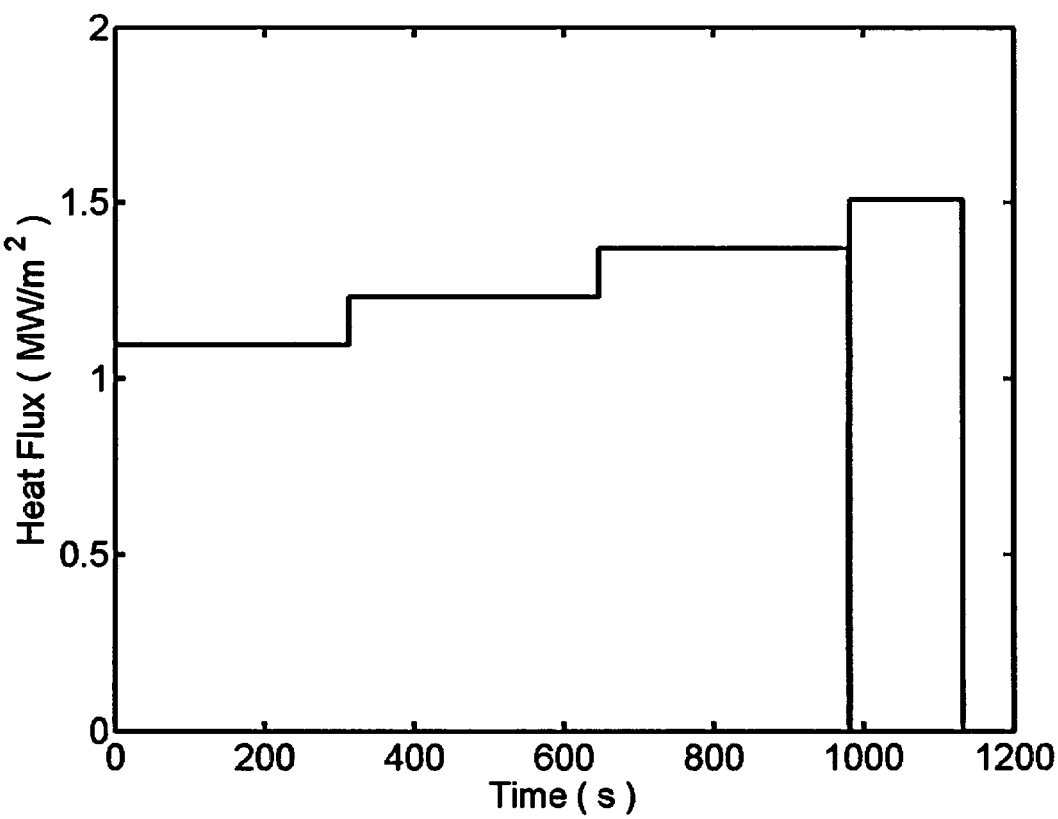

Figure A15.3. Heat flux history.

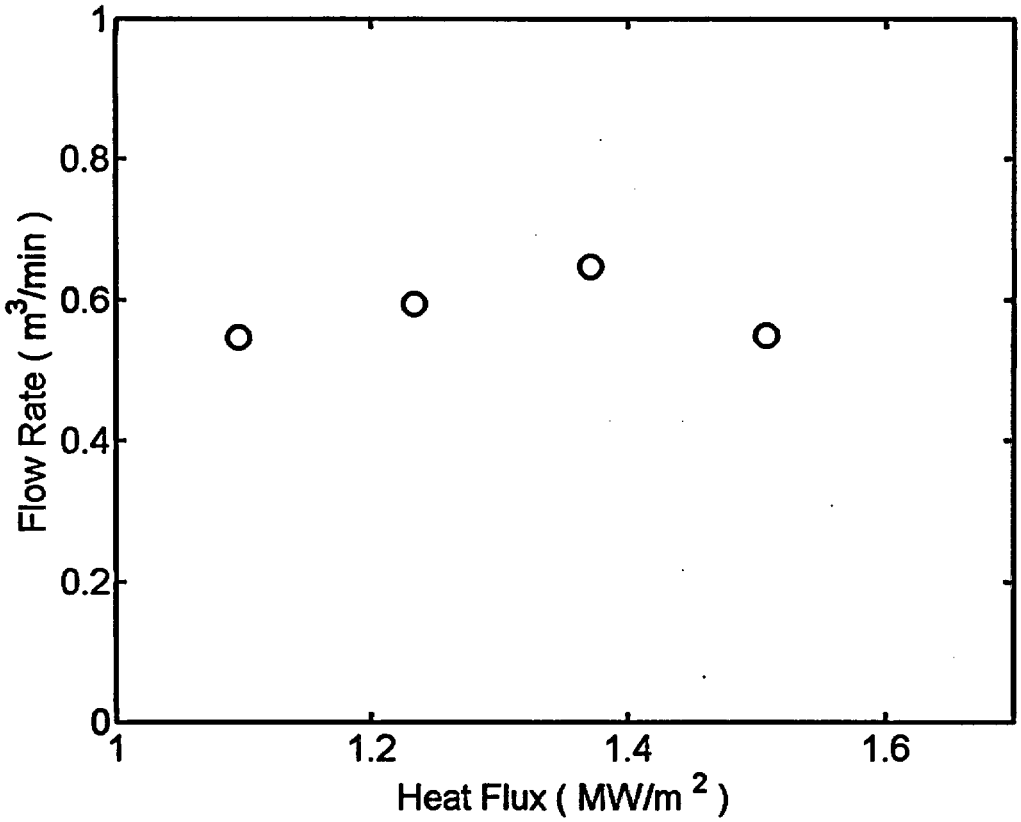

Figure A15.4. Flow rate vs. heat fluxes.

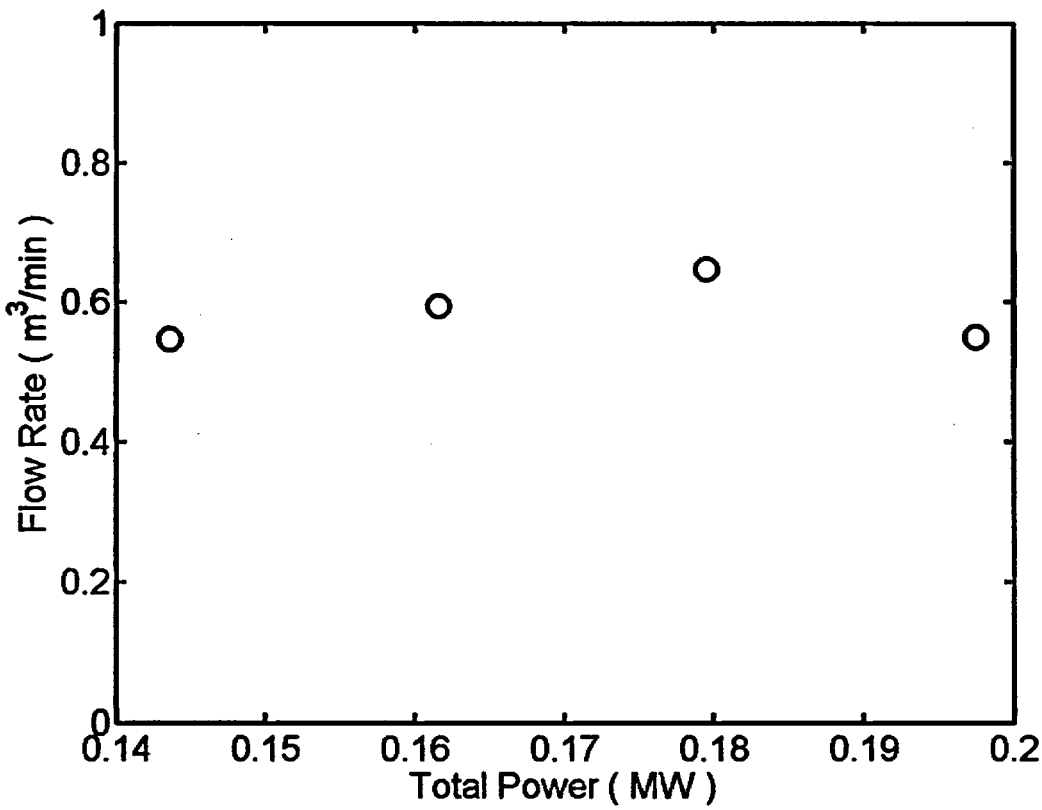

Figure A15.5. Flow rate vs. total input power.

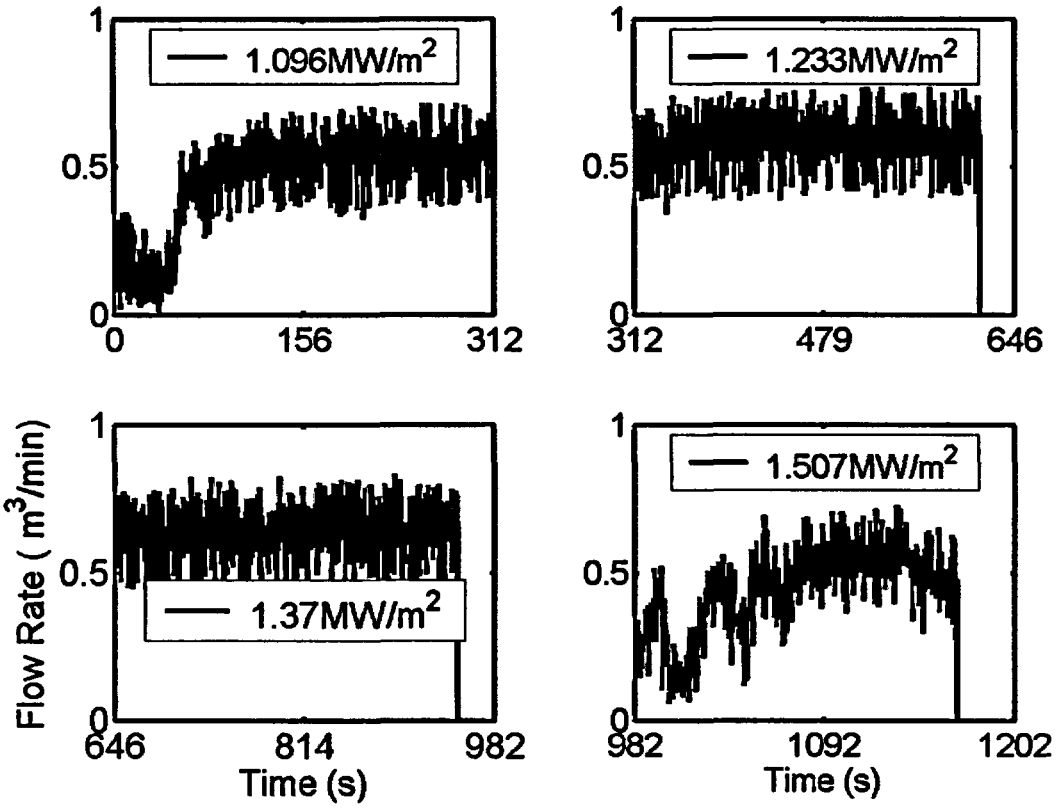

Figure A15.6. Flow rates at different heat fluxes.

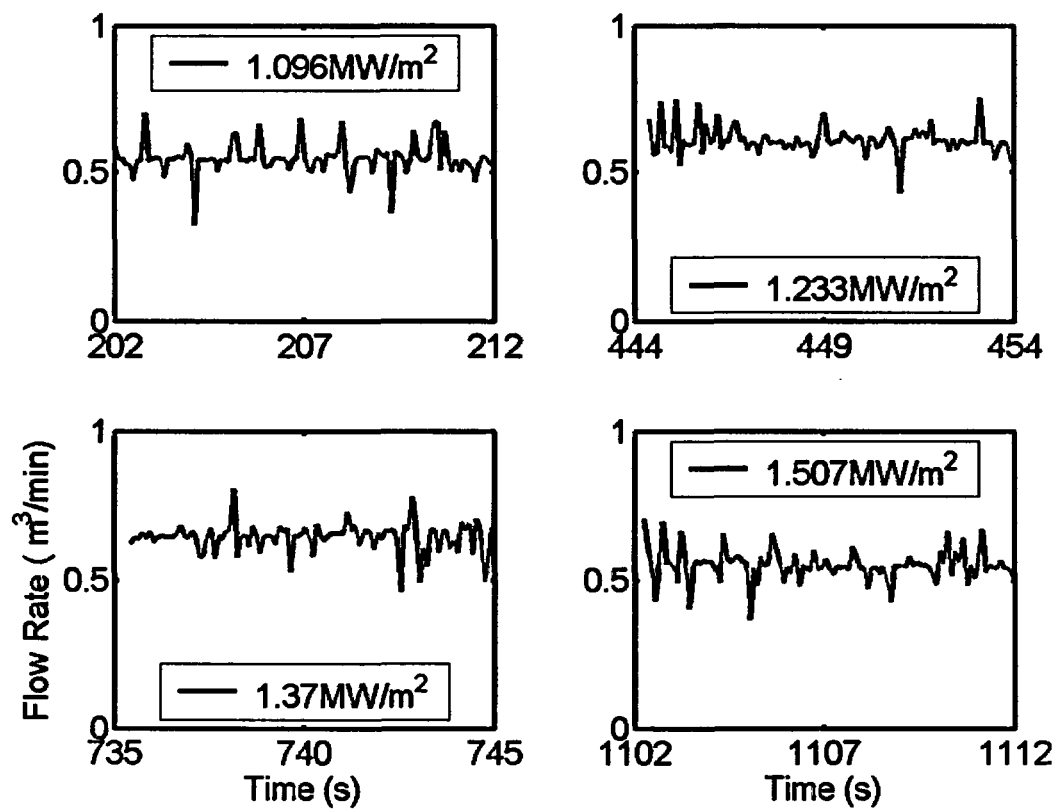

Figure A15.7. Flow rates at different heat fluxes at selected time intervals.

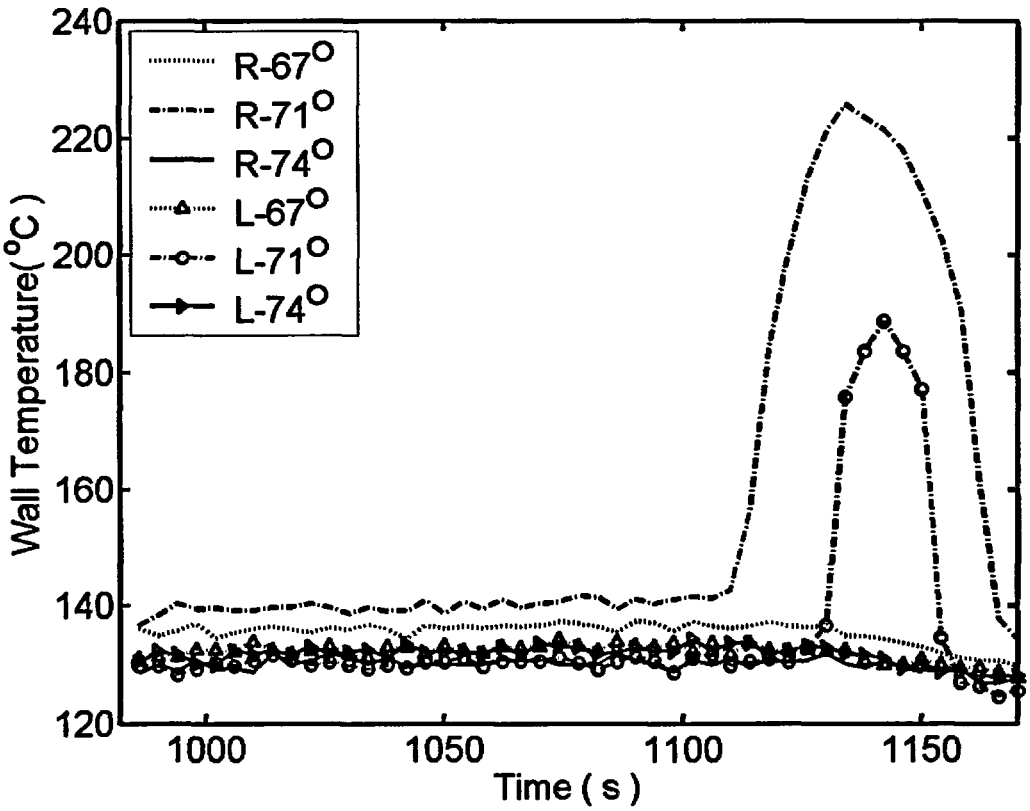

Figure A15.8. Temperature history at CHF.

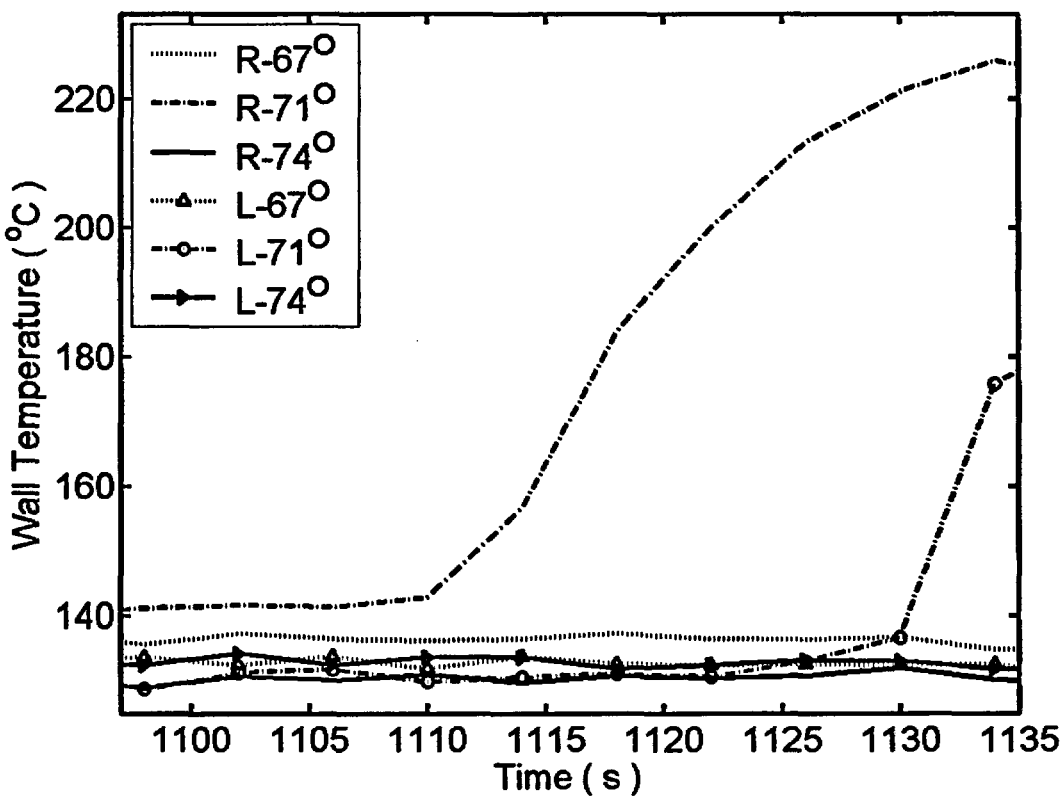

Figure A15.9. Temperature history at CHF in detail.

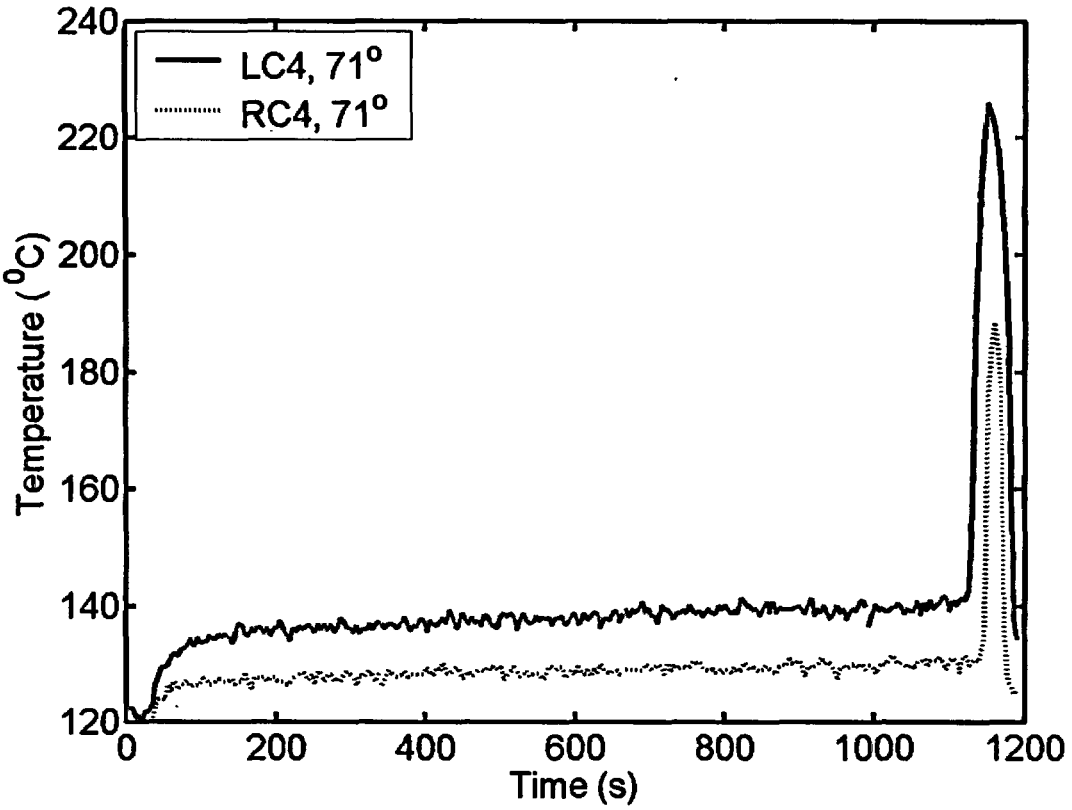

Figure A15.10. Wall temperature history measured by two thermocouples LC4 and RC4.

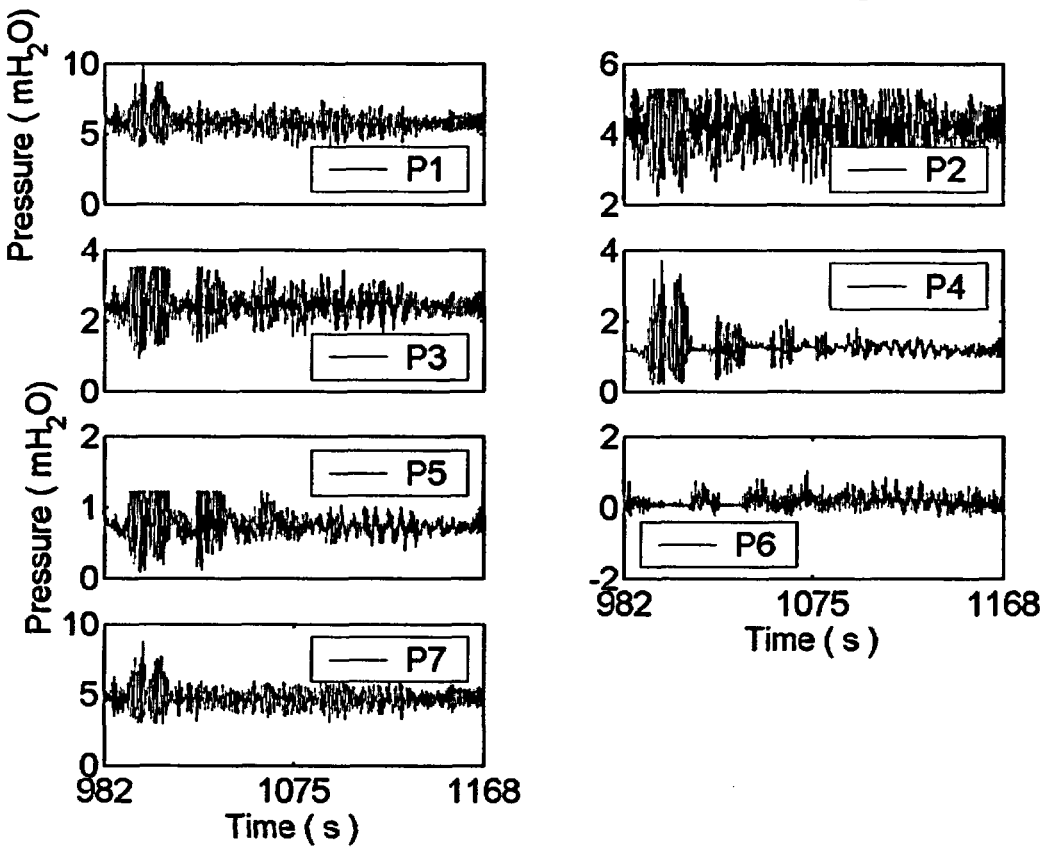

Figure A15.11. Pressure transducer data at q = 1.507 MW/m^2.

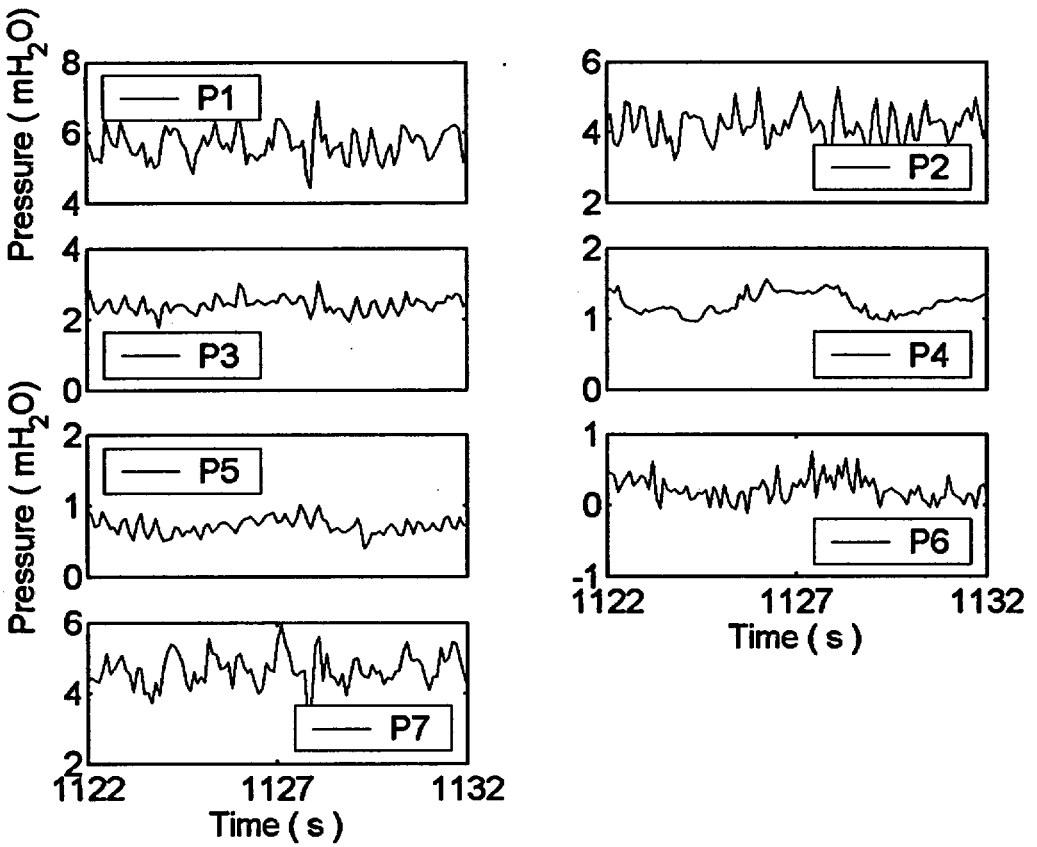

Figure A15.12. Pressure data in detail at q = 1.507 MW/m^2.

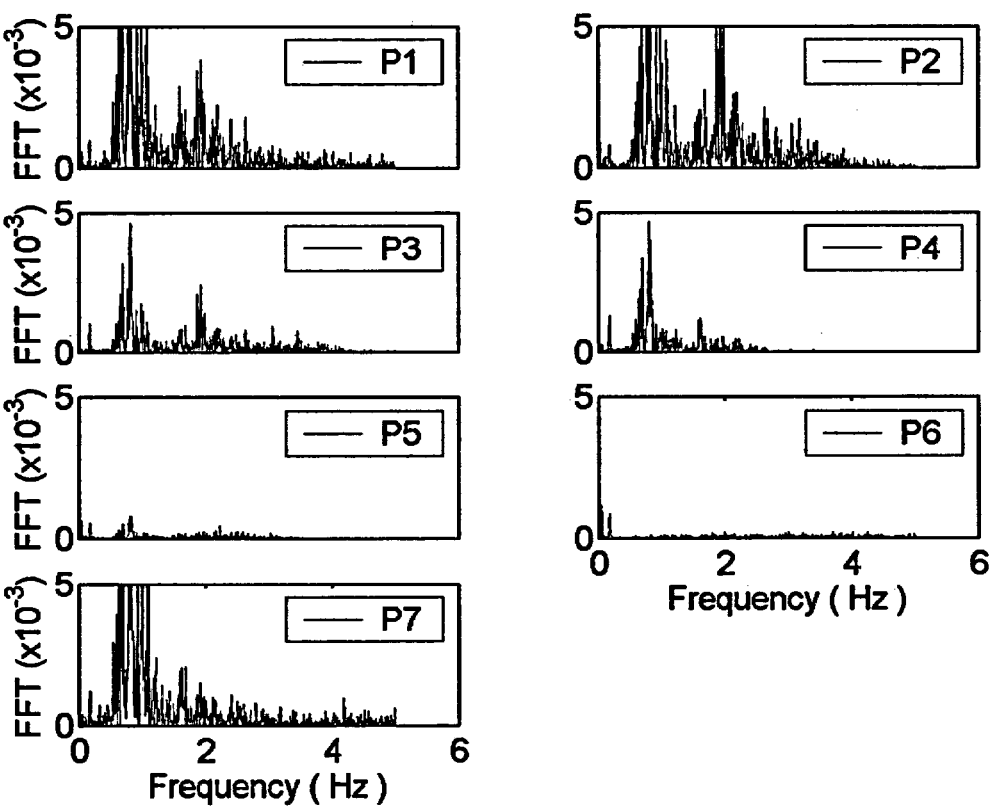

Figure A15.13. FFT of pressure time series at q = 1.507 MW/m^2.

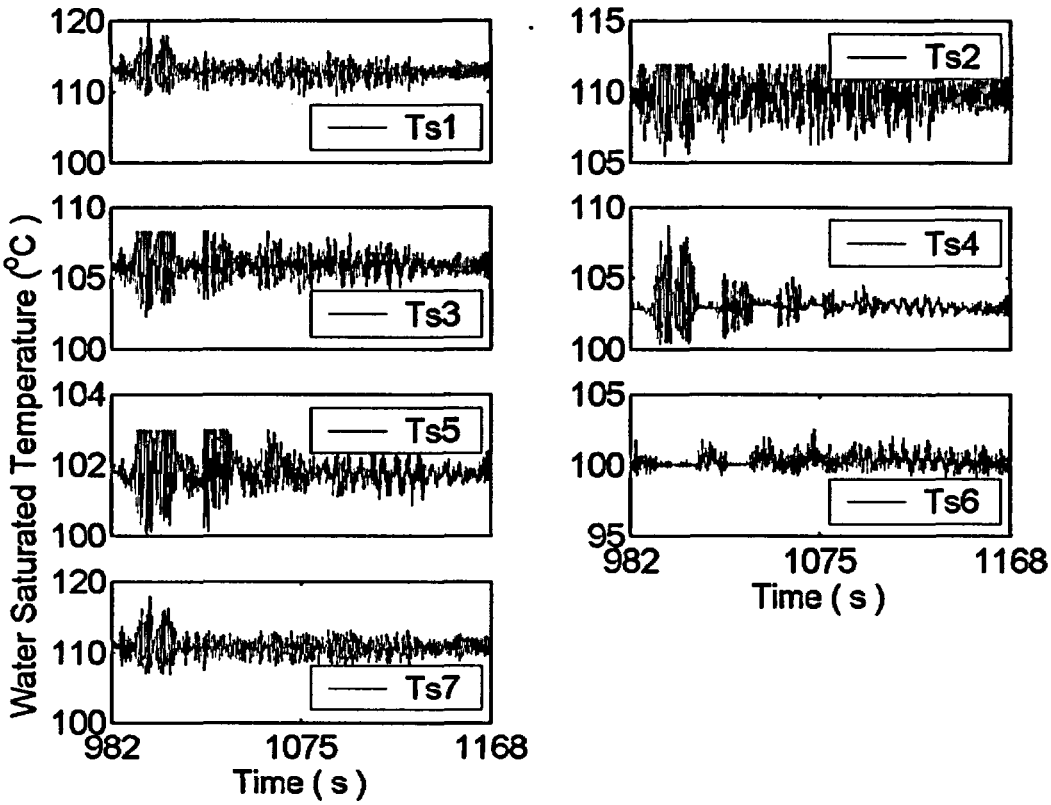

Figure A15.14. Water saturation temperature calculated from local pressure data at q = 1.507 MW/m^2.

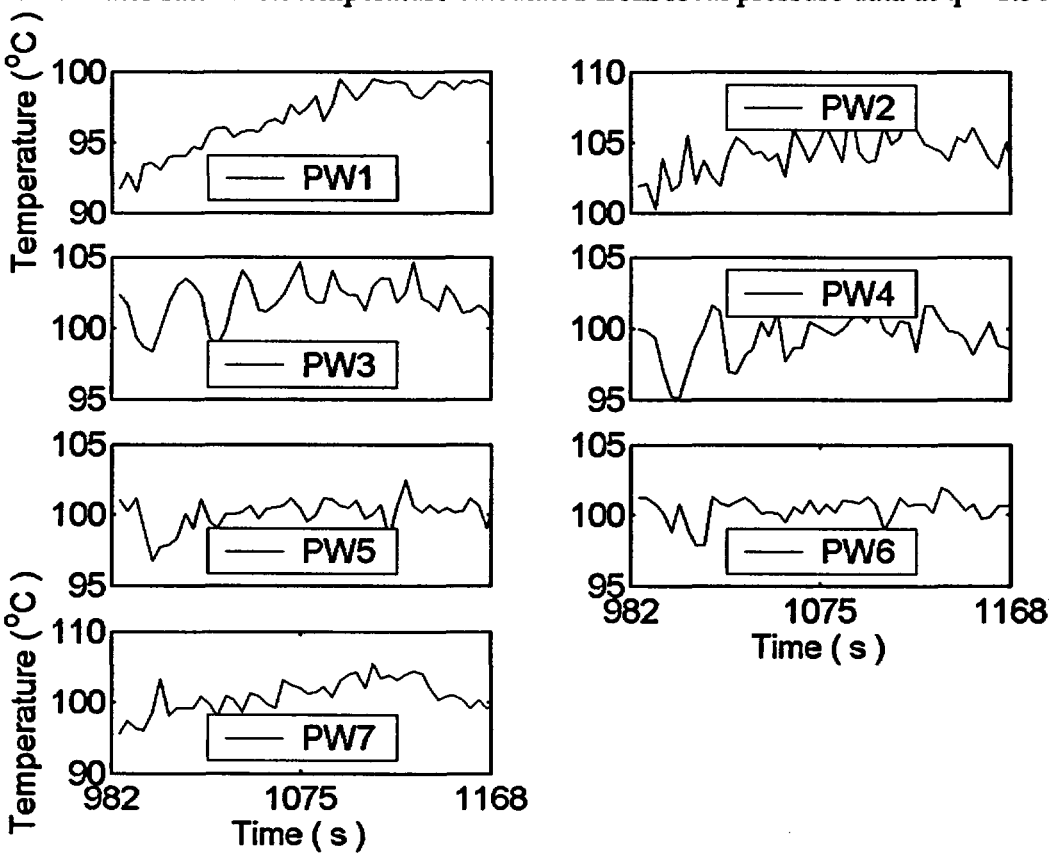

Figure A15.15. Water temperature measured at location of pressure transducer at q = 1.507 MW/m^2.

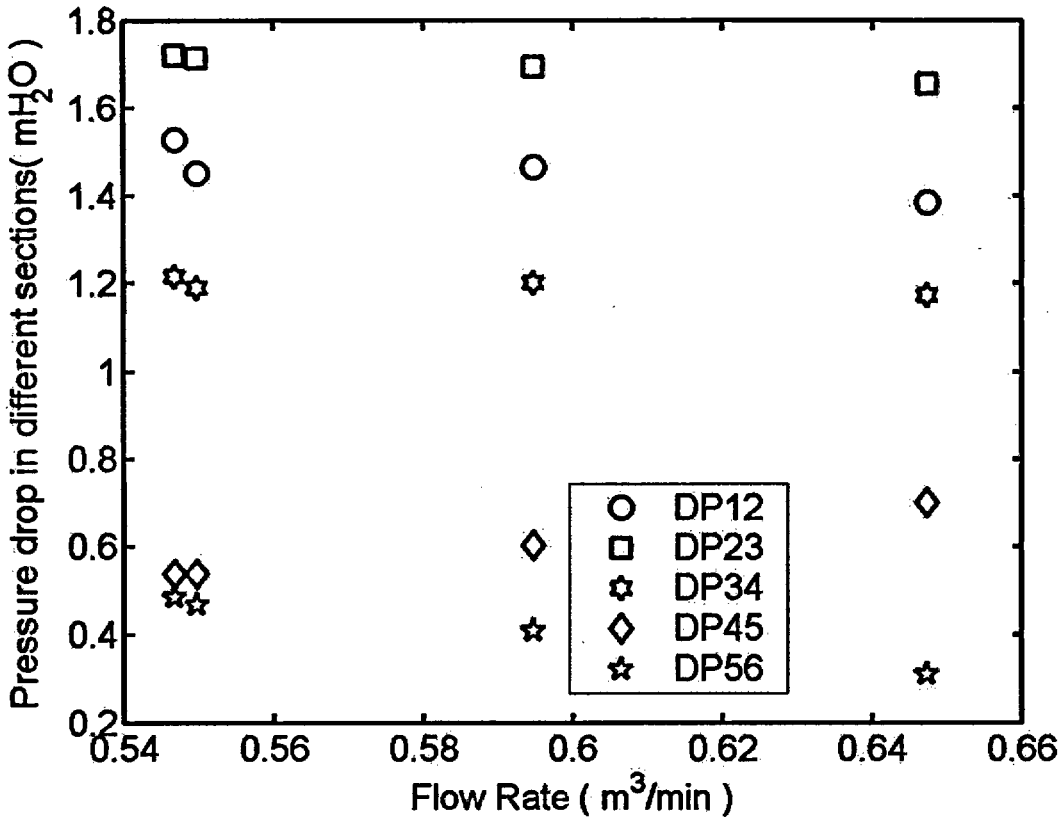

Figure A15.16. Pressure drop vs. flow rate at different heat fluxes.

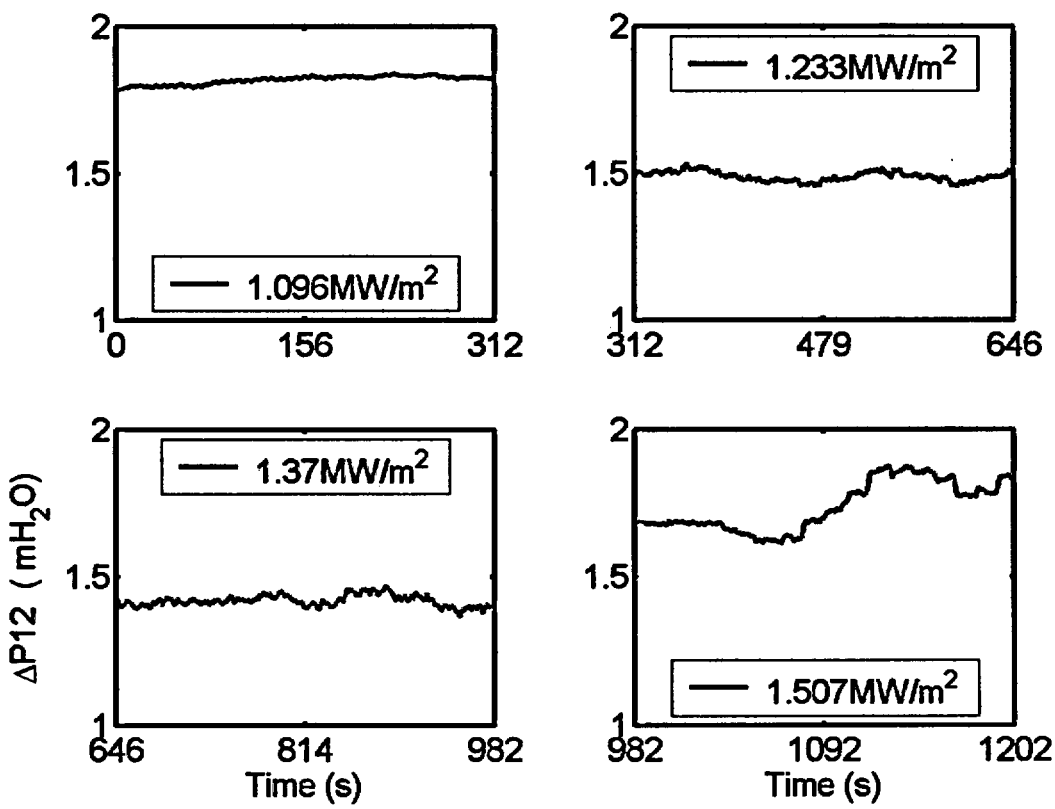

Figure A15.17. Differential Pressure ΔP12 at different heat fluxes.

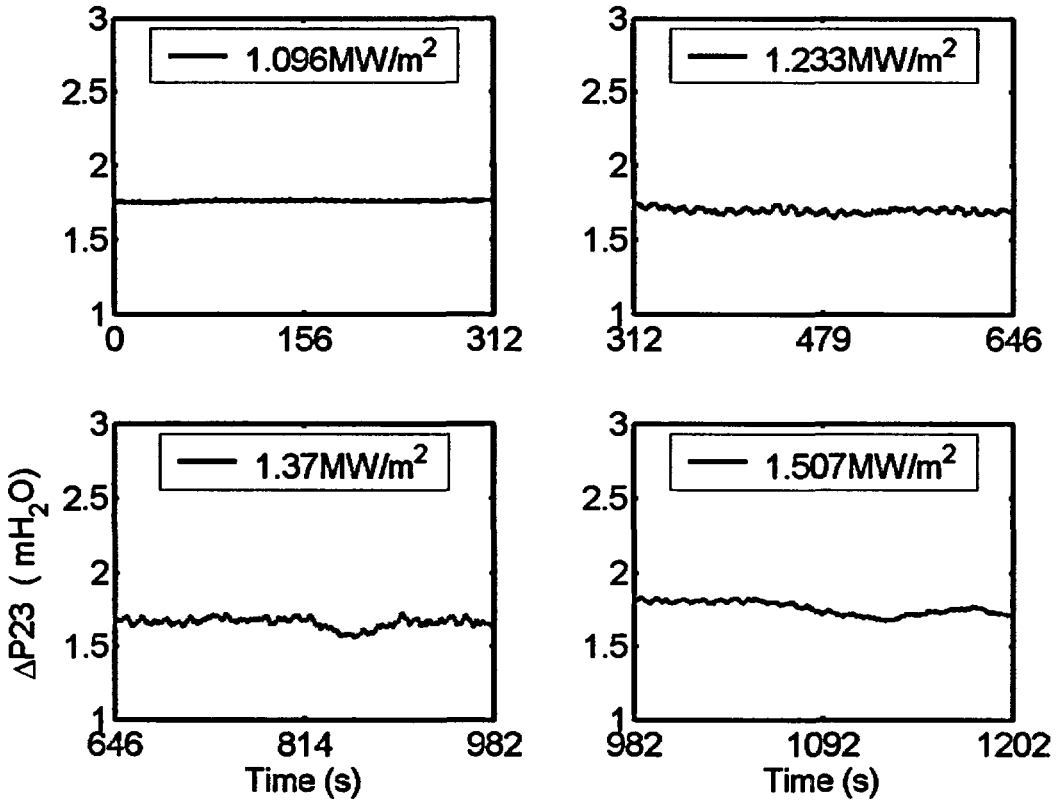

Figure A15.18. Differential Pressure ΔP23 at different heat fluxes.

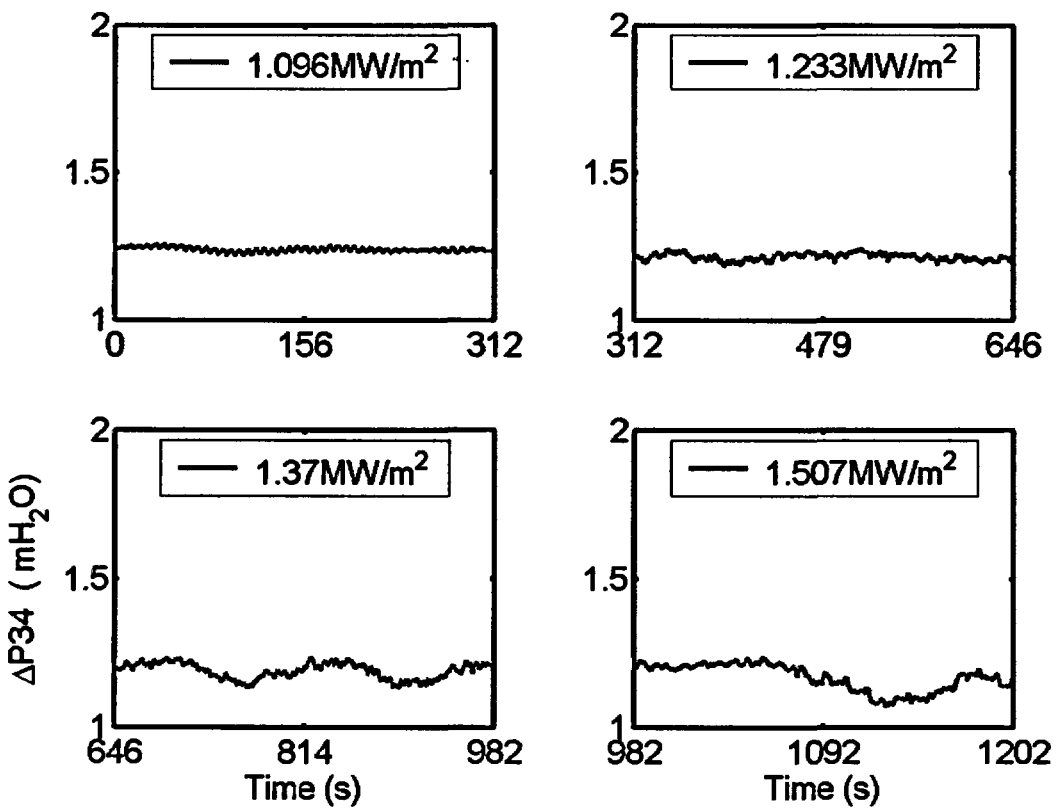

Figure A15.19. Differential Pressure ΔP34 at different heat fluxes.

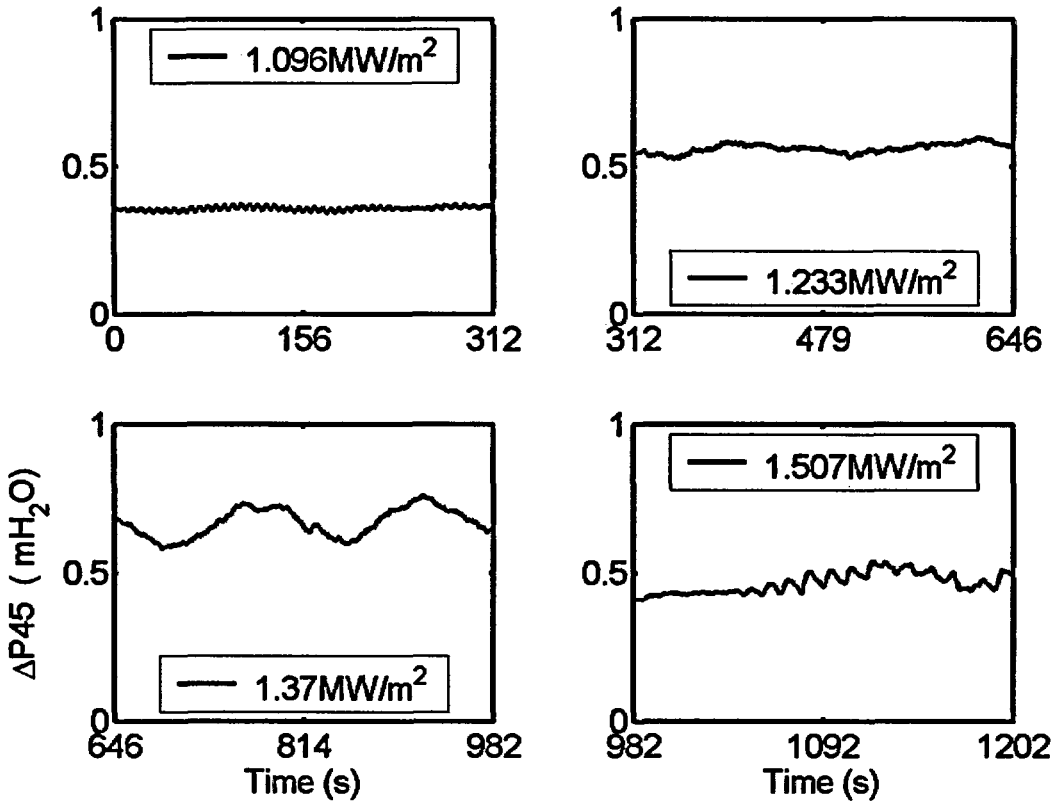

Figure A15.20. Differential Pressure ΔP45 at different heat fluxes.

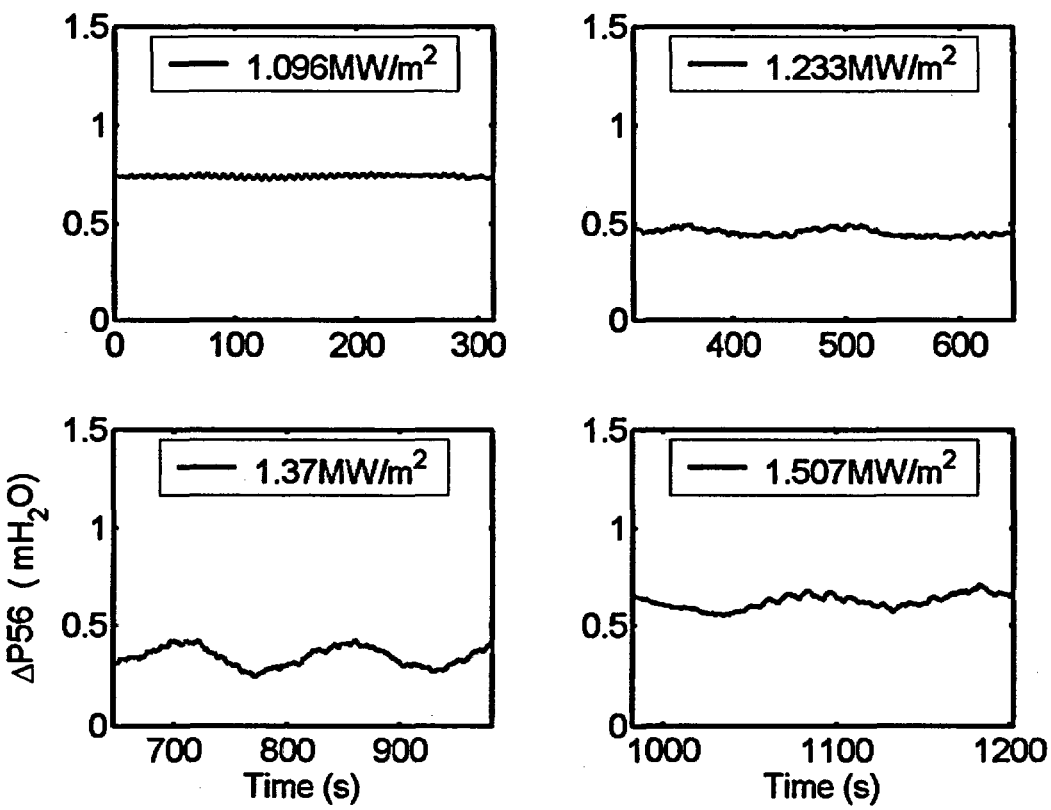

Figure A15.21. Differential Pressure ΔP56 at different heat fluxes.

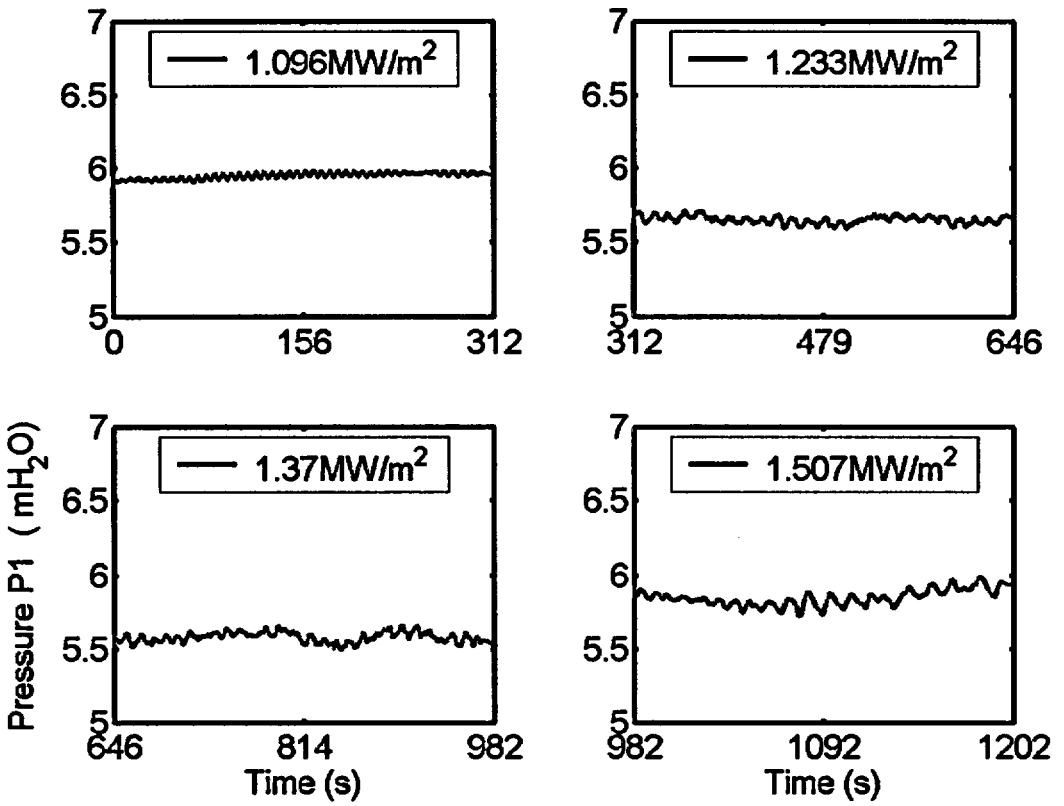

Figure A15.22. Pressure P1 at different heat fluxes.

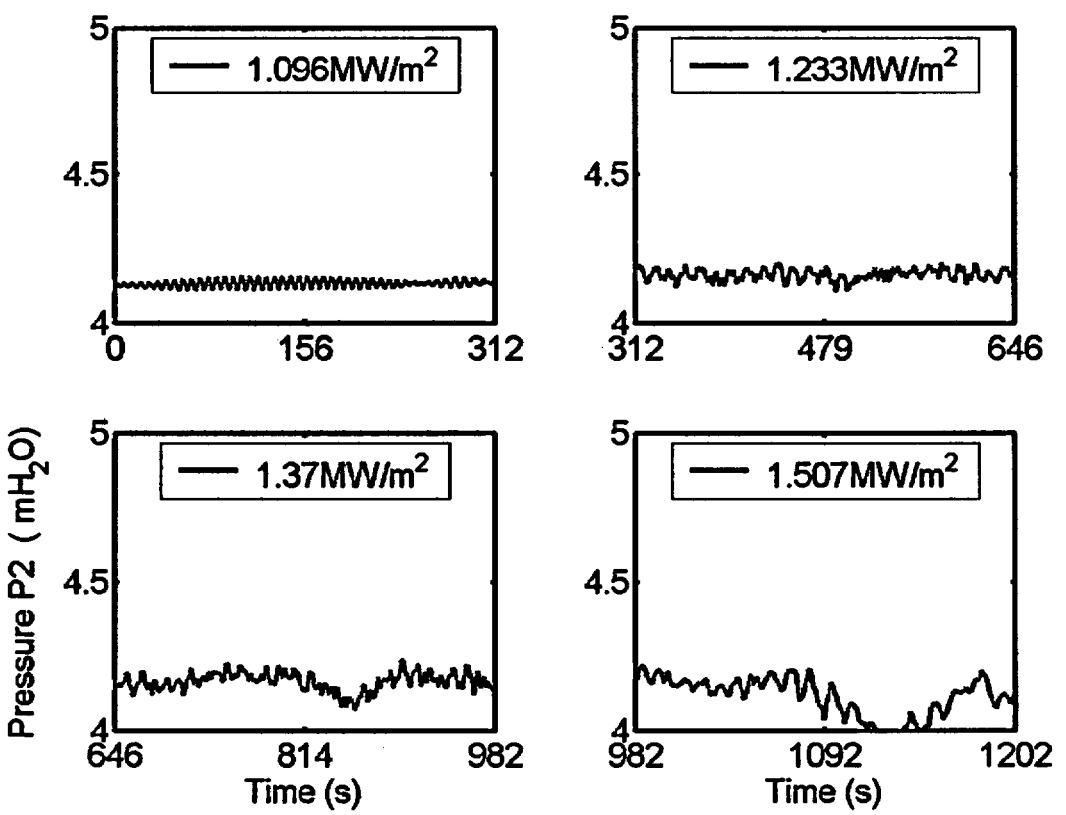

Figure A15.23. Pressure P2 at different heat fluxes.

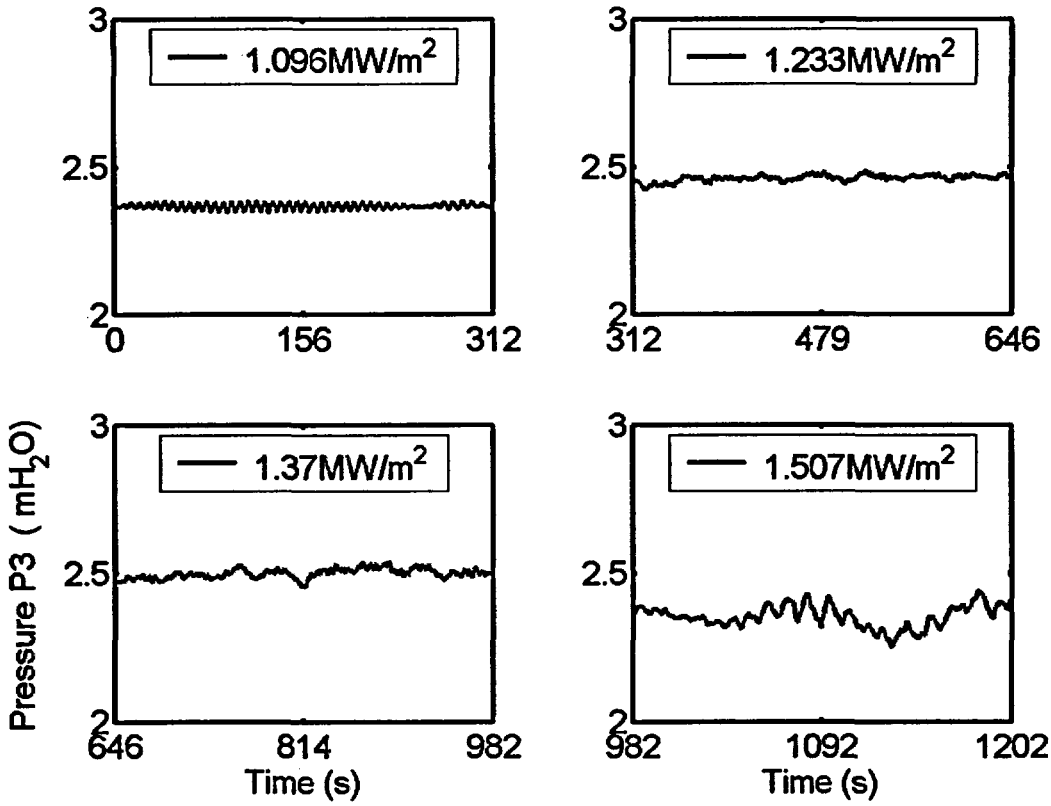

Figure A15.24. Pressure P3 at different heat fluxes.

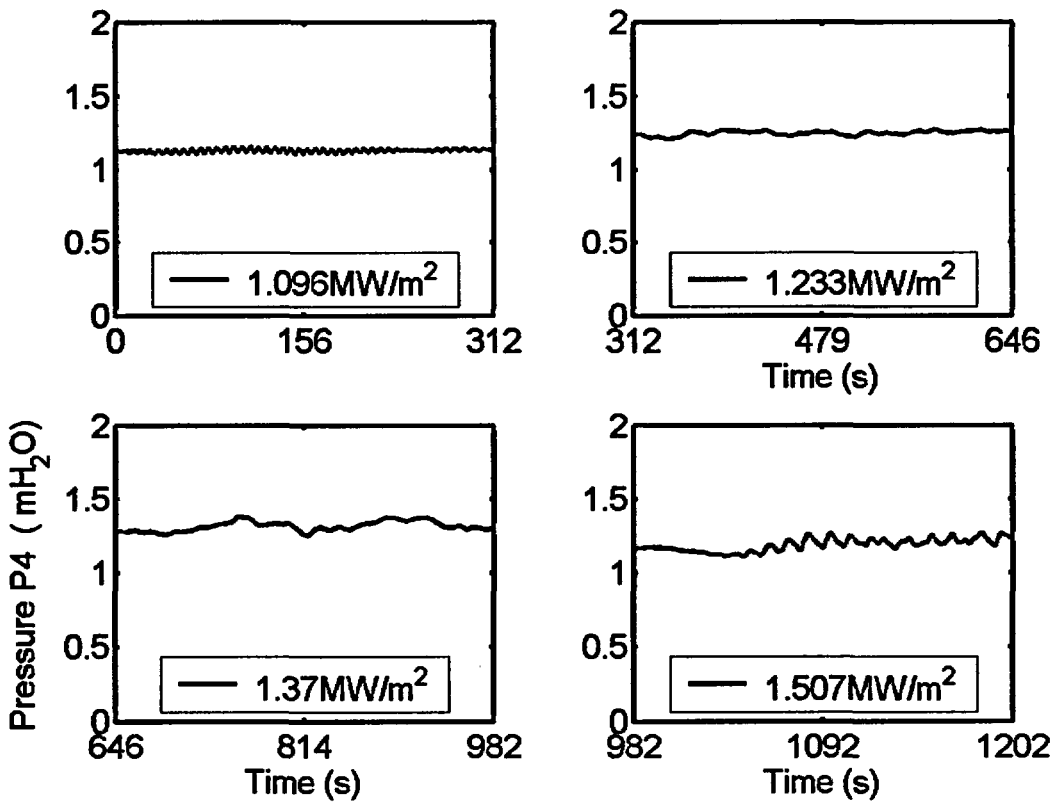

Figure A15.25. Pressure P4 at different heat fluxes.

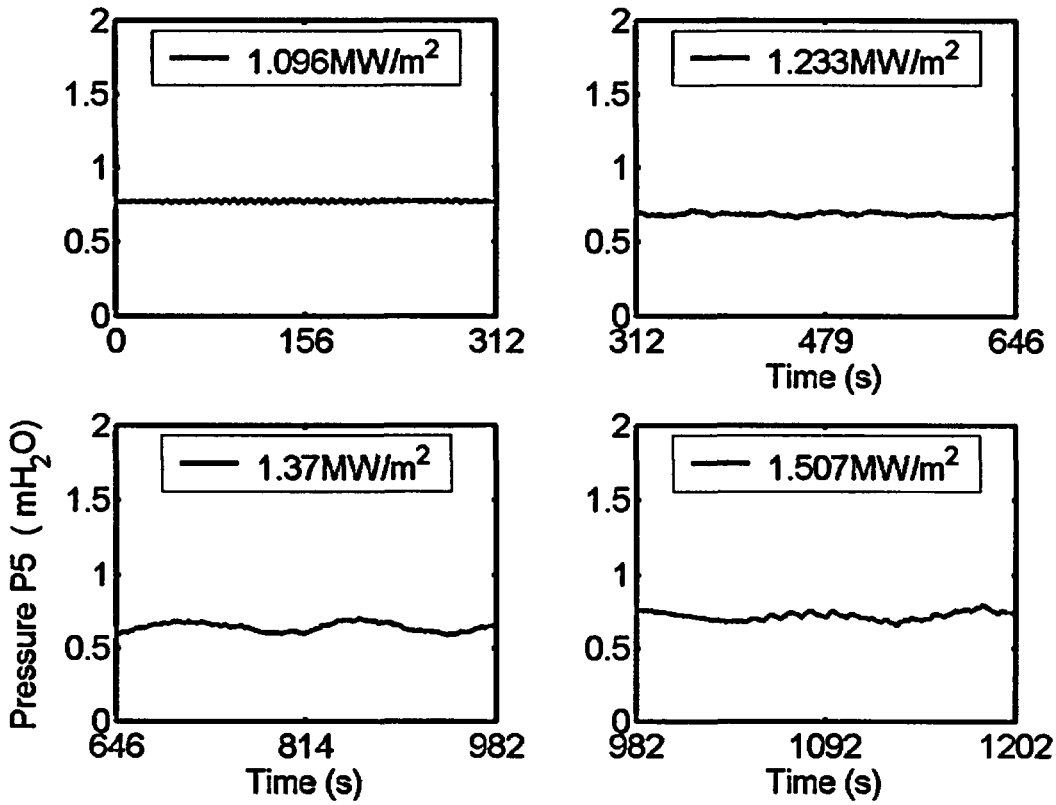

Figure A15.26. Pressure P5 at different heat fluxes.

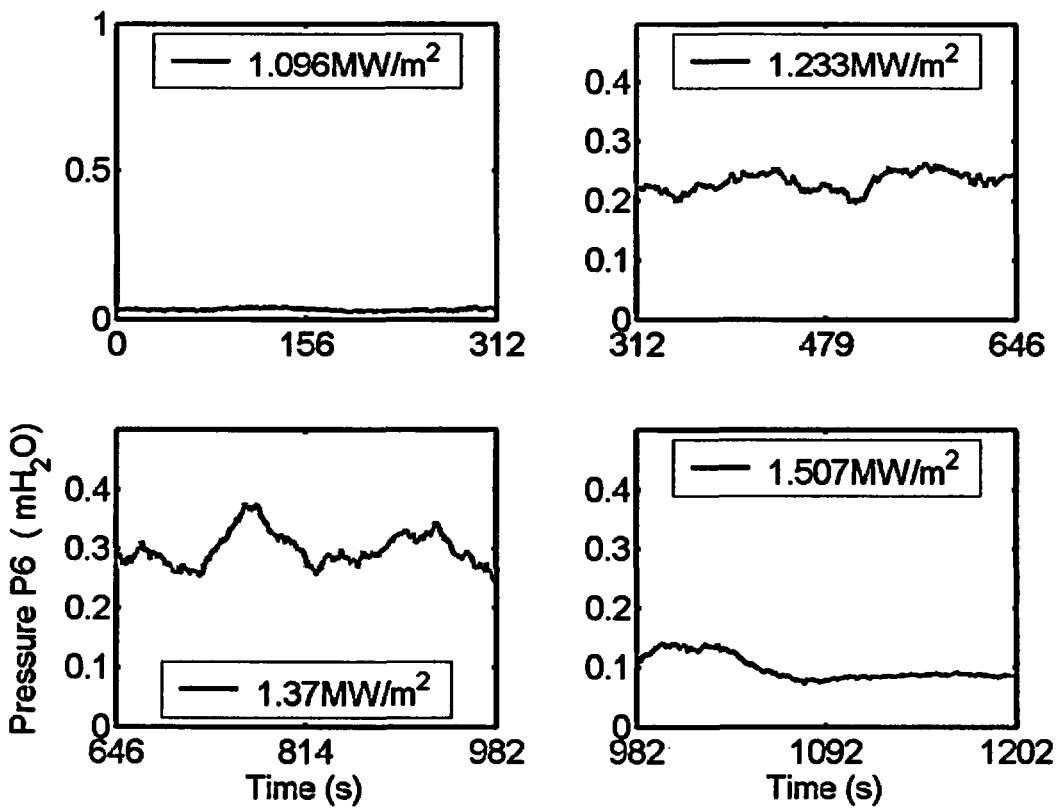

Figure A15.27. Pressure P6 at different heat fluxes.

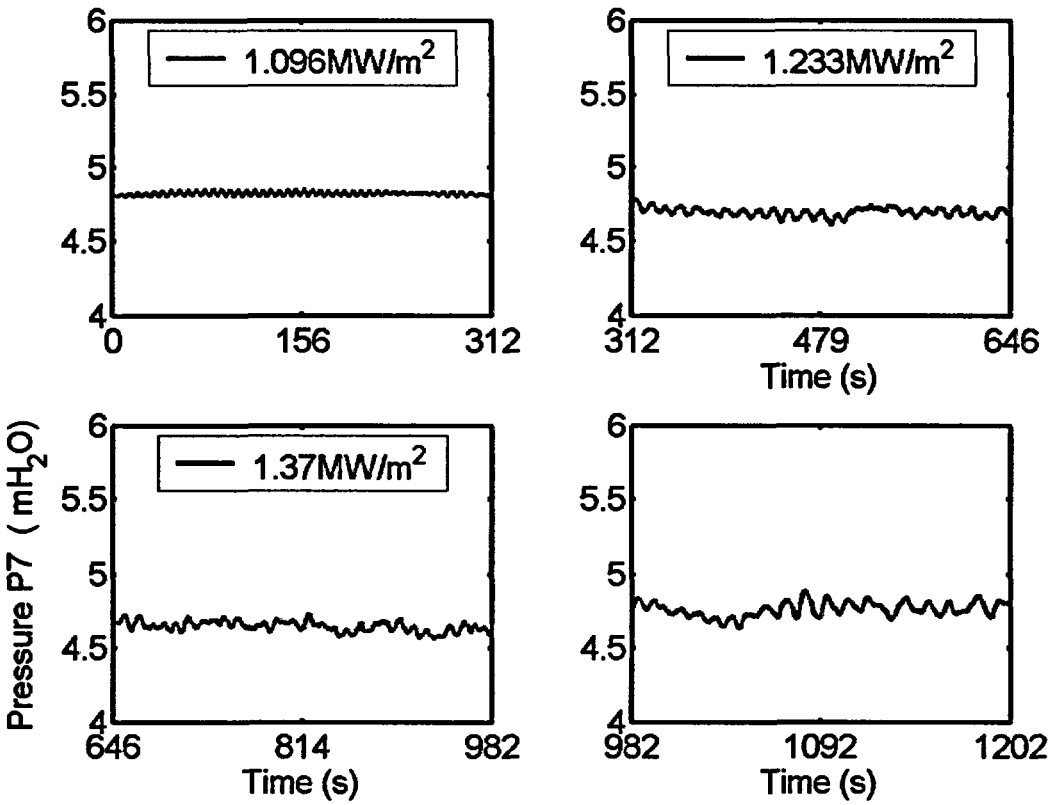

Figure A15.28. Pressure P7 at different heat fluxes.

ID #16

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T40B	1453	RC4	71	C	01/03/2003/11:35

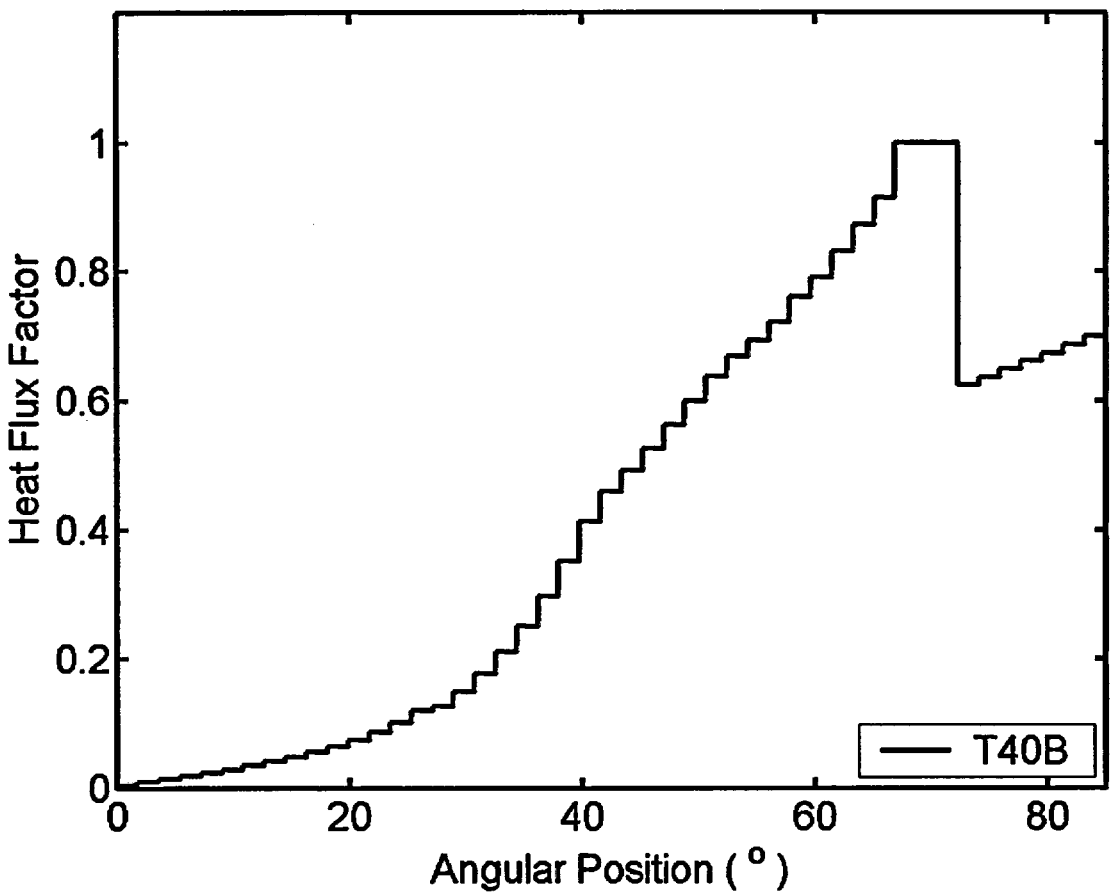

Figure A16.1. Power shape.

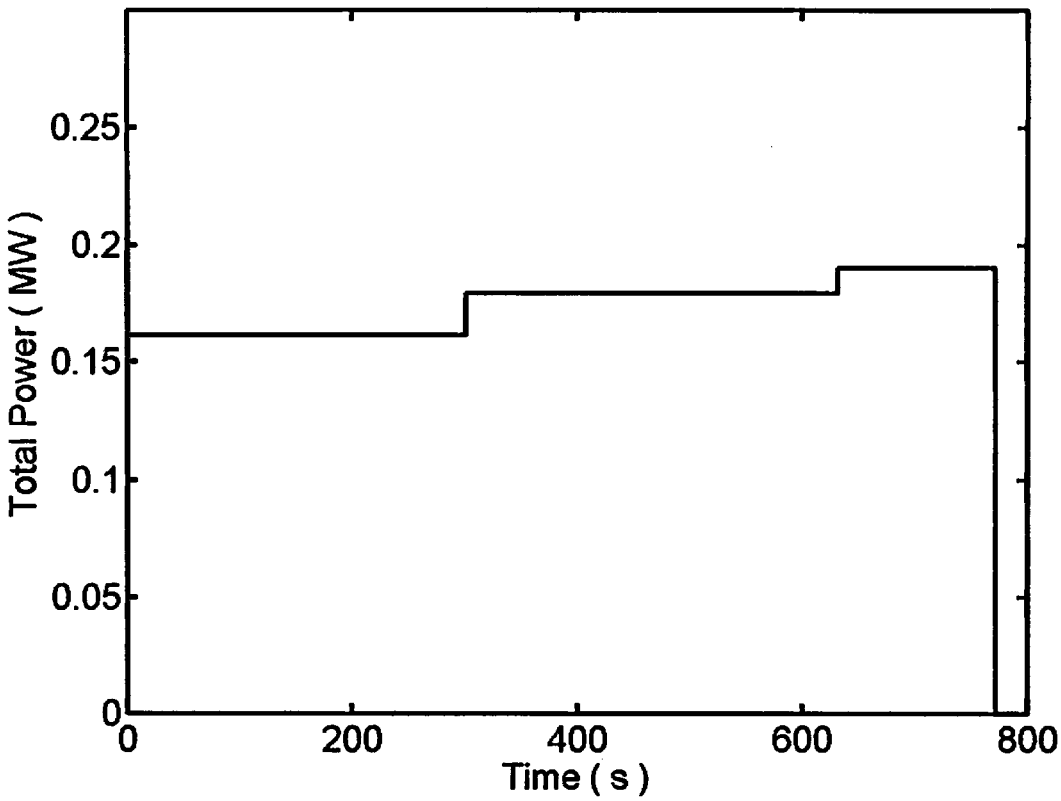

Figure A16.2. Total input power history.

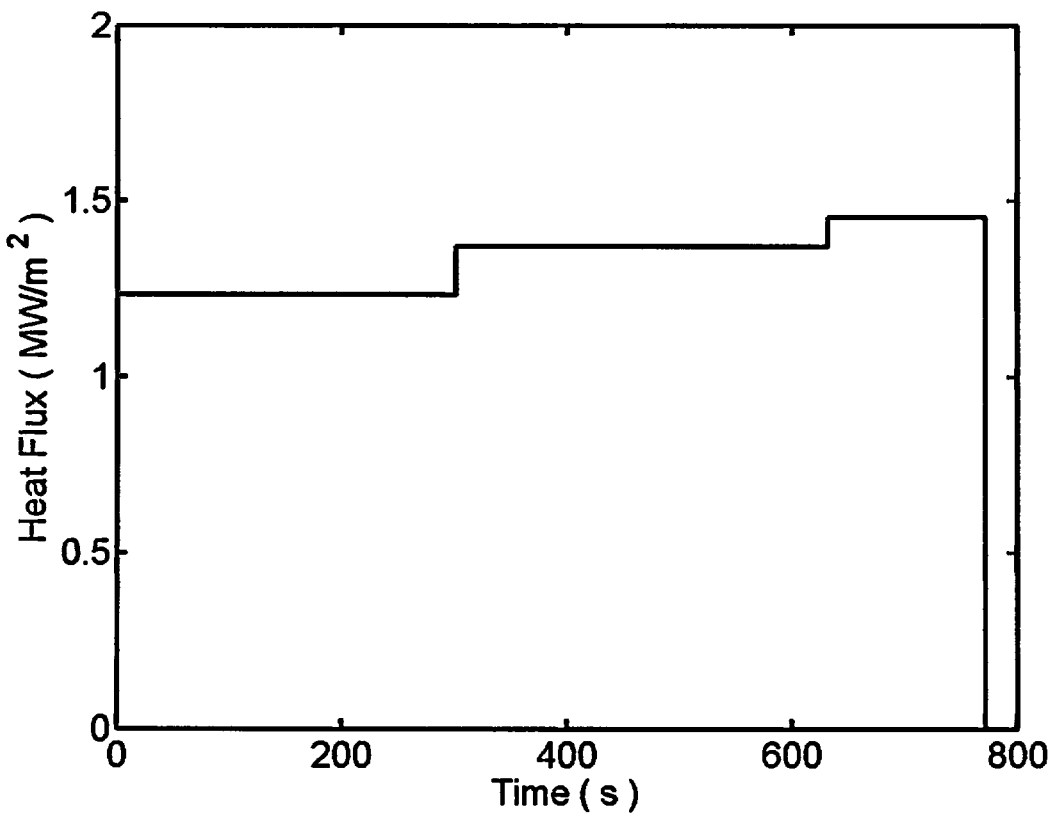

Figure A16.3. Heat flux history.

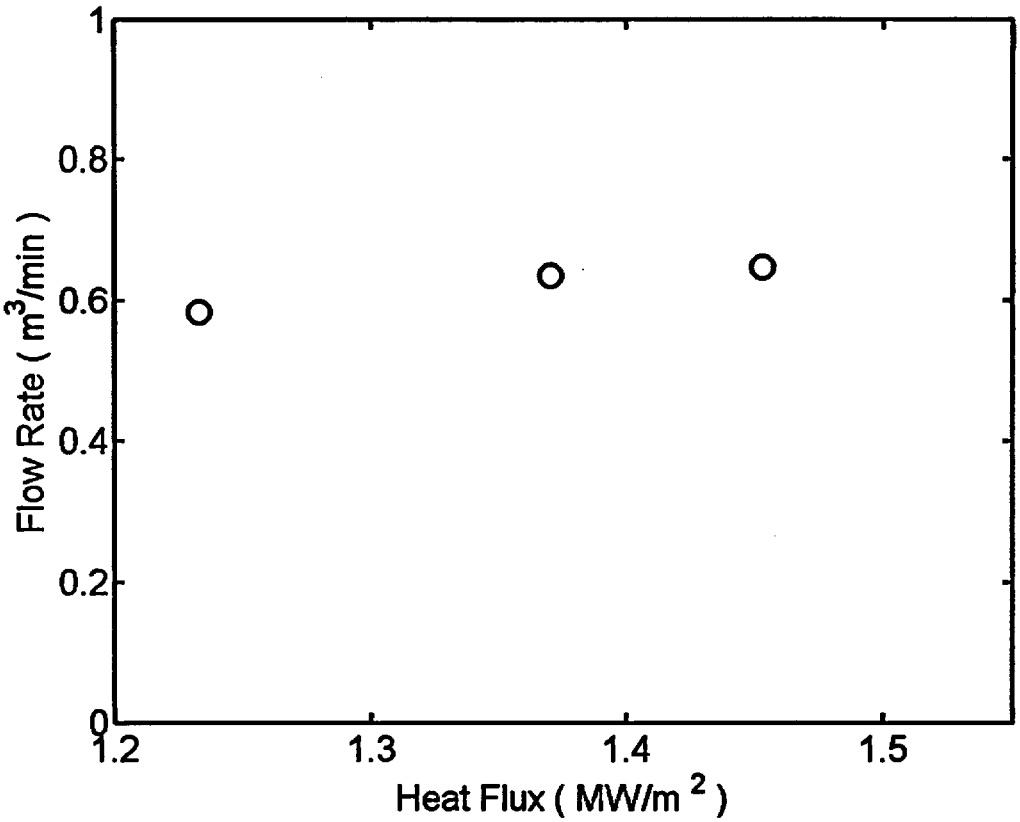

Figure A16.4. Flow rate vs. heat fluxes.

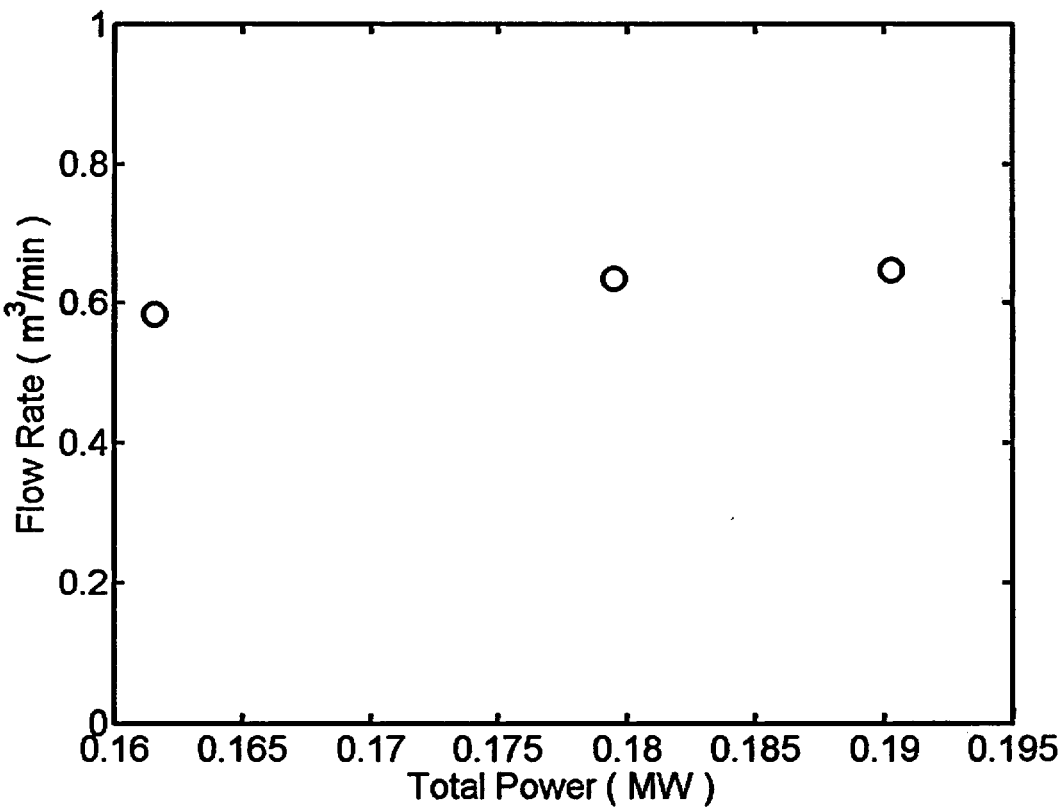

Figure A16.5. Flow rate vs. total input power.

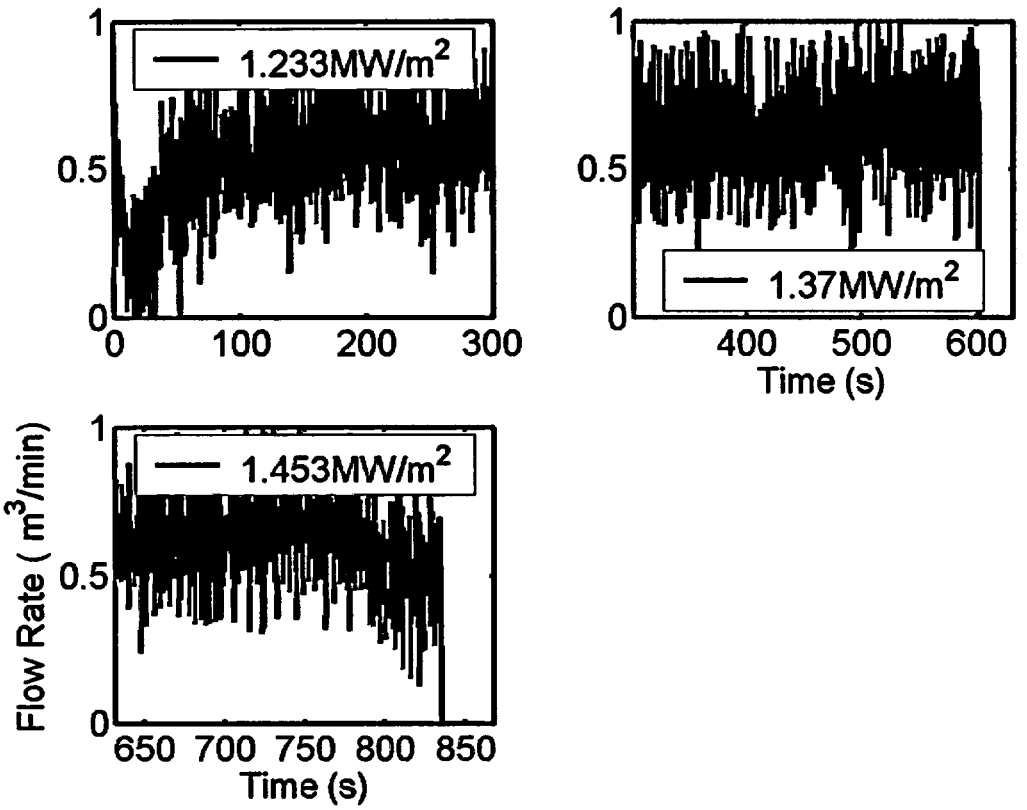

Figure A16.6. Flow rates at different heat fluxes.

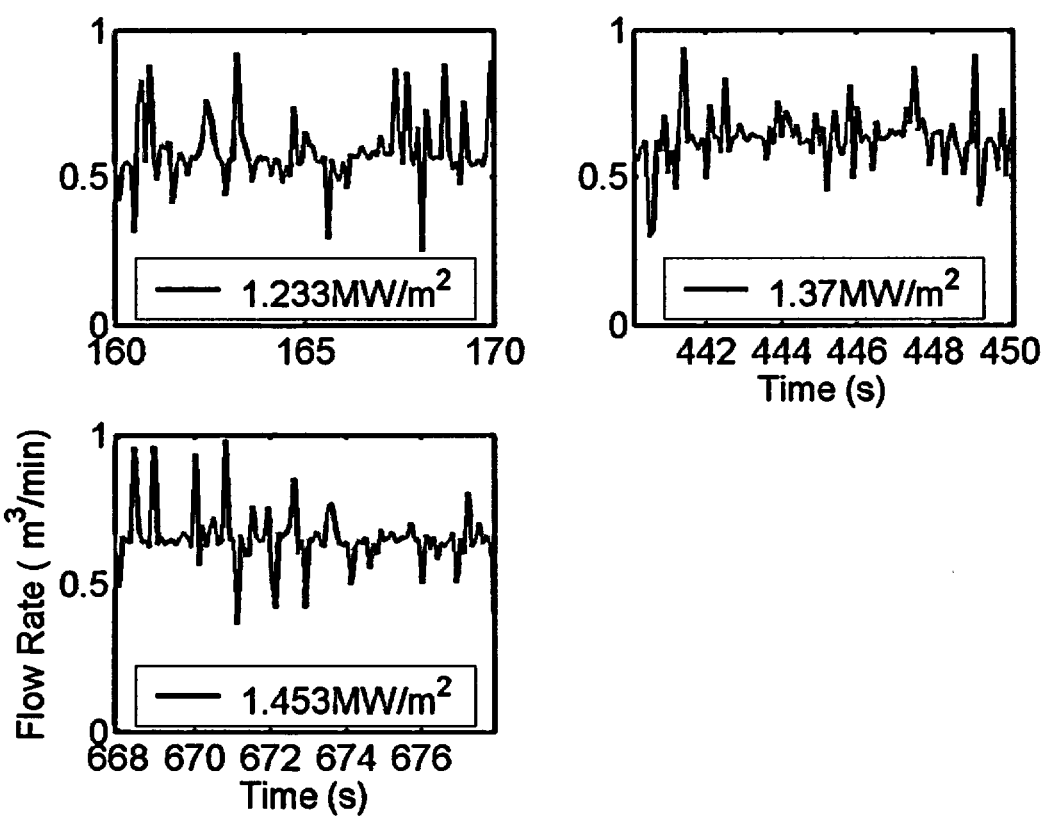

Figure A16.7. Flow rates at different heat fluxes at selected time intervals.

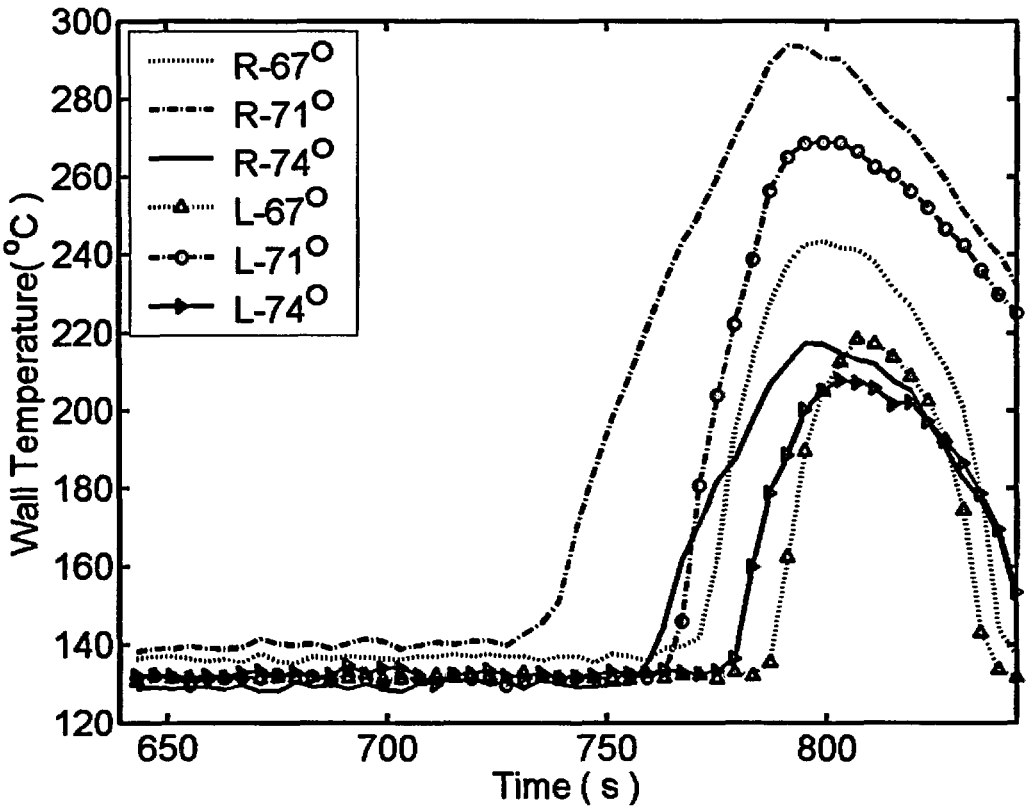

Figure A16.8. Temperature history at CHF.

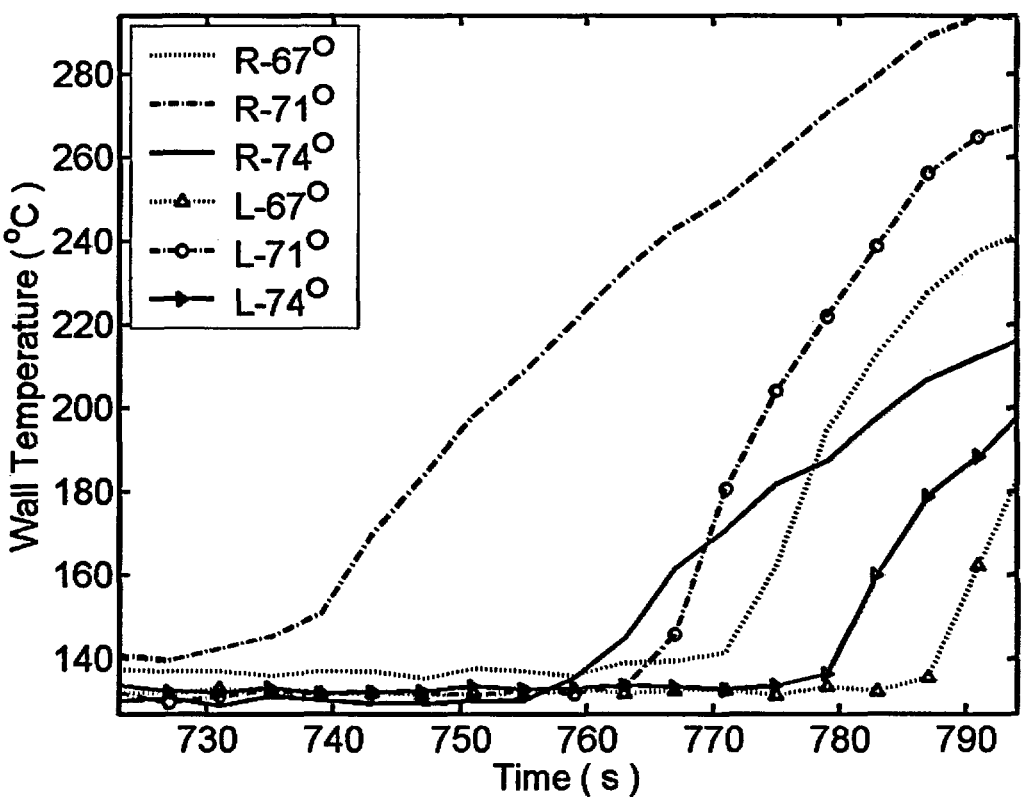

Figure A16.9. Temperature history at CHF in detail.

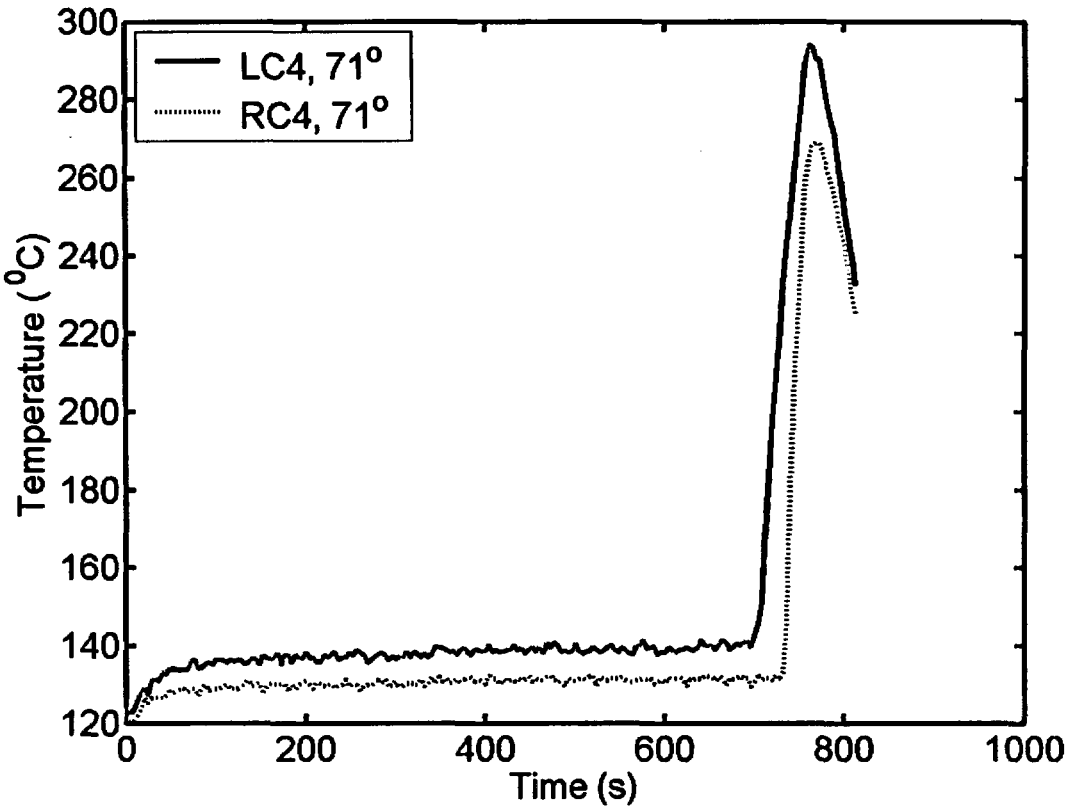

Figure A16.10 Wall temperature history measured by two thermocouples LC4 and RC4.

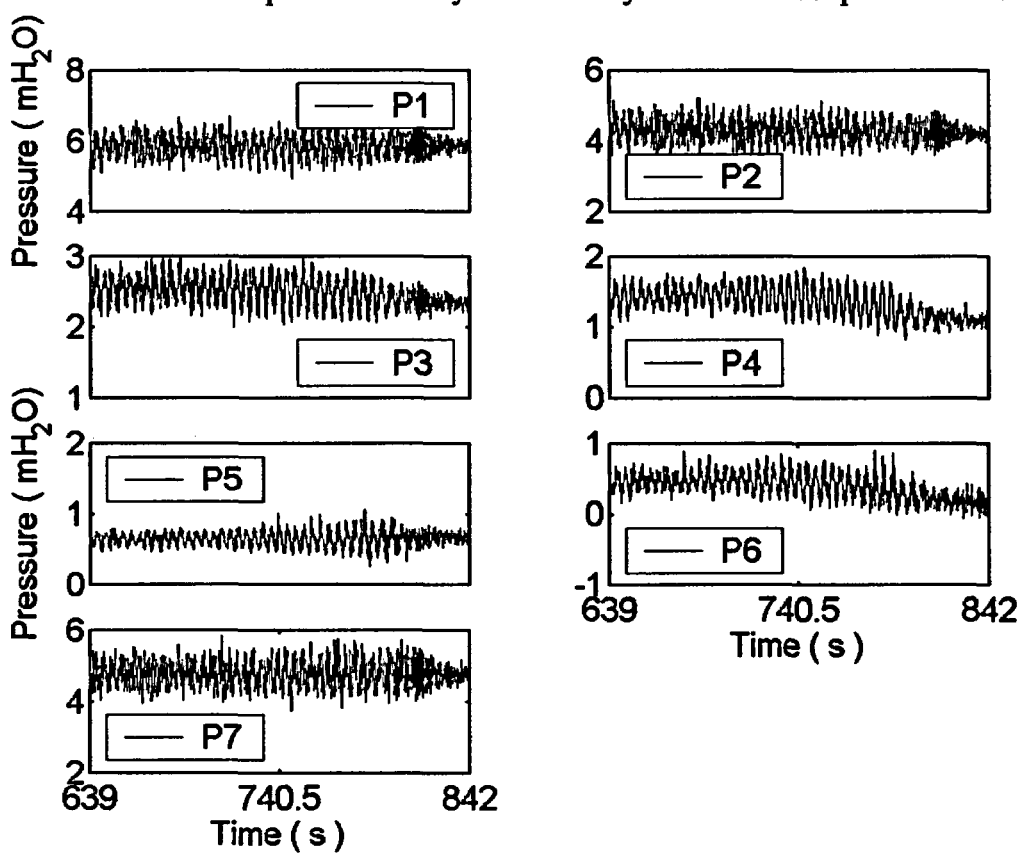

Figure A16.11. Pressure transducer data at q = 1.453 MW/m^2.

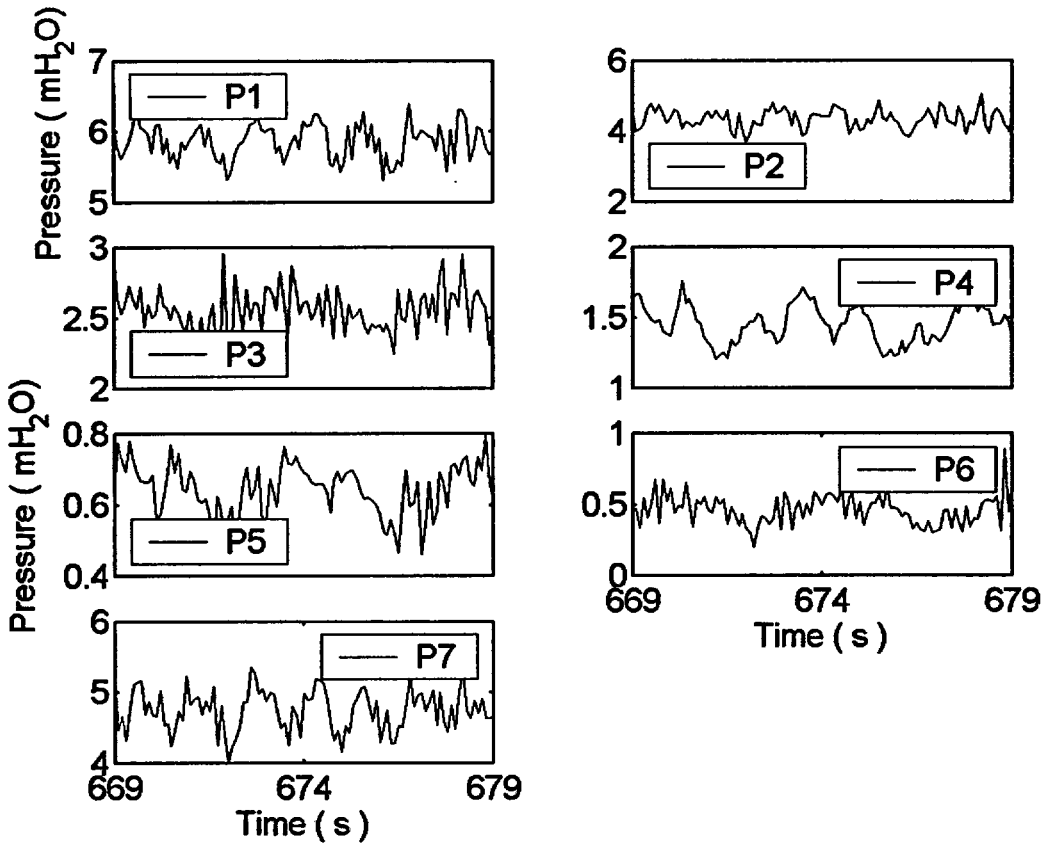

Figure A16.12. Pressure data in detail at q = 1.453 MW/m^2.

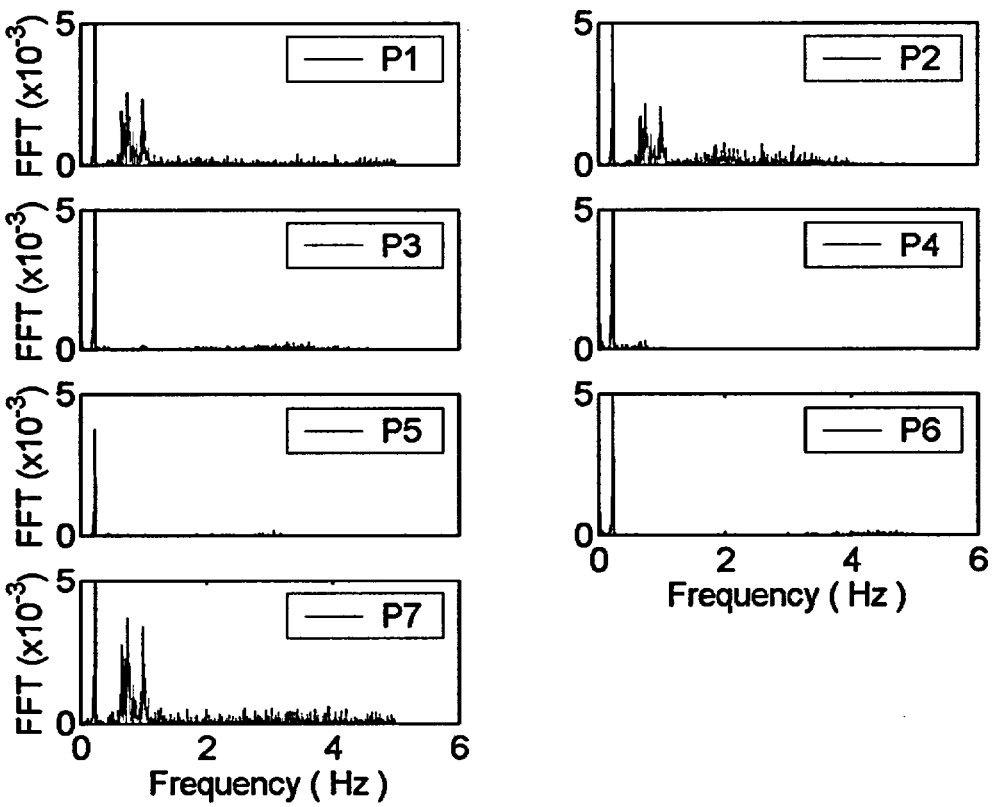

Figure A16.13. FFT of pressure time series at q = 1.453 MW/m^2.

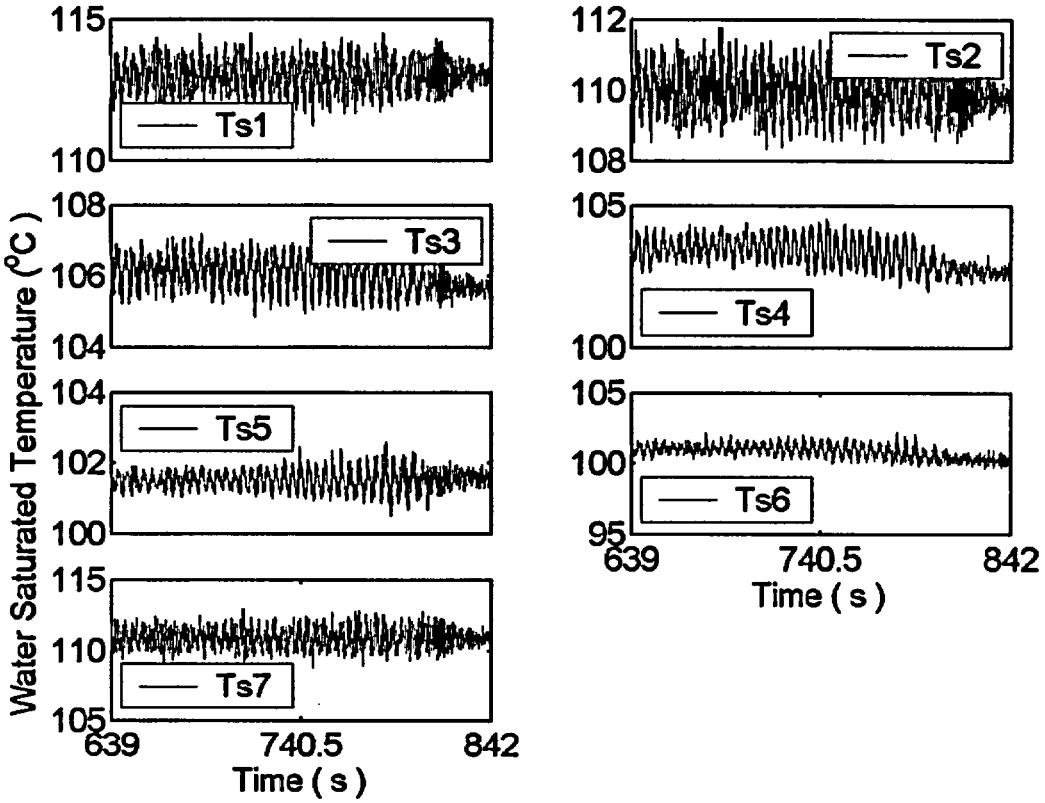

Figure A16.14. Water saturation temperature calculated from local pressure data at q = 1.453 MW/m^2.

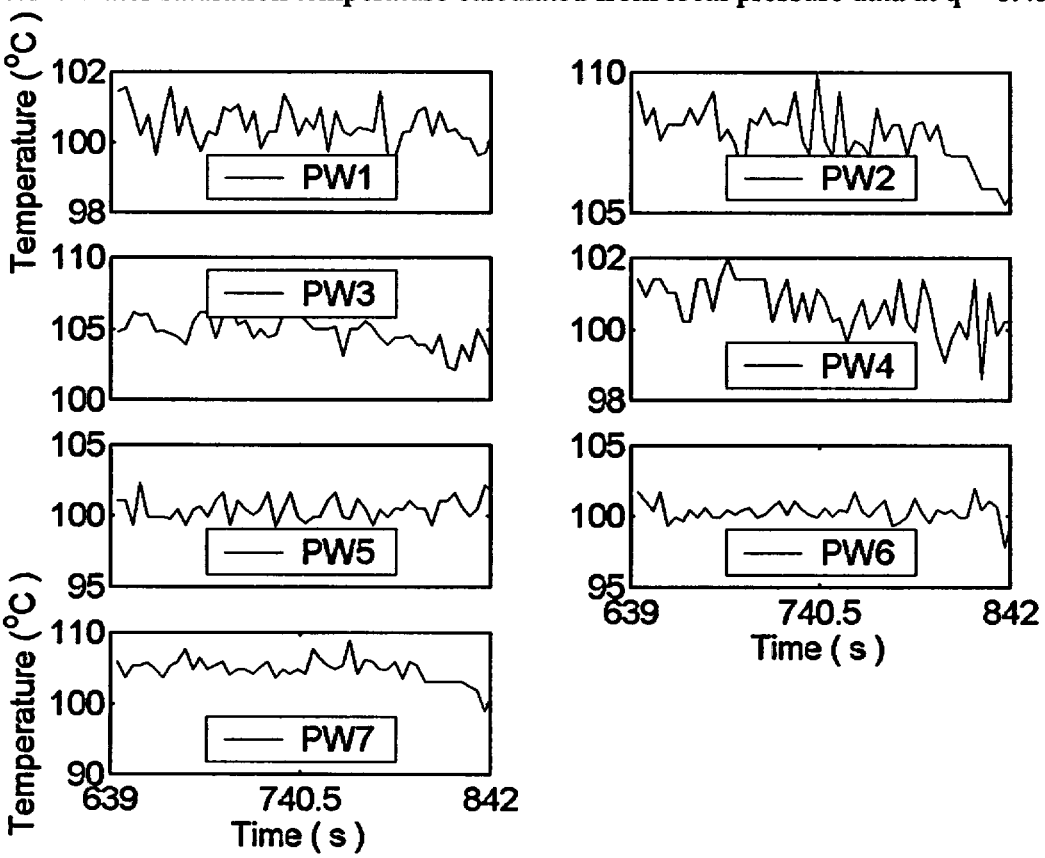

Figure A16.15. Water temperature measured at location of pressure transducer at q = 1.453 MW/m^2.

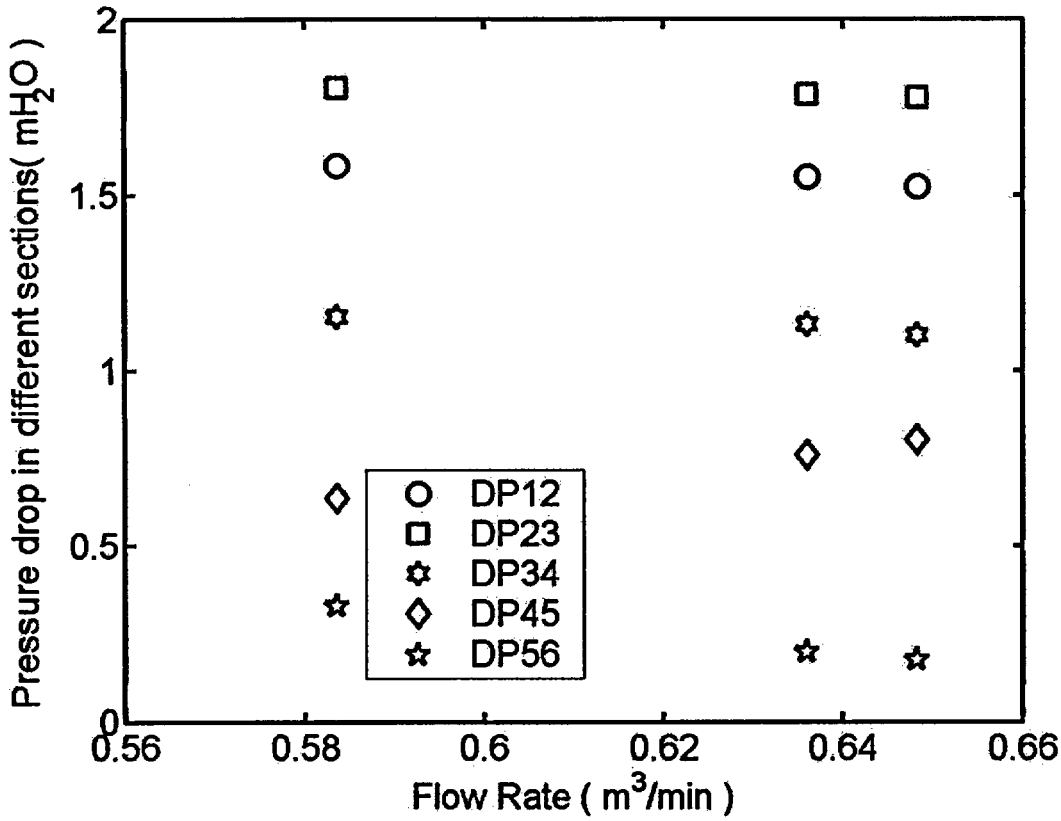

Figure A16.16 Pressure drop vs. flow rate at different heat fluxes.

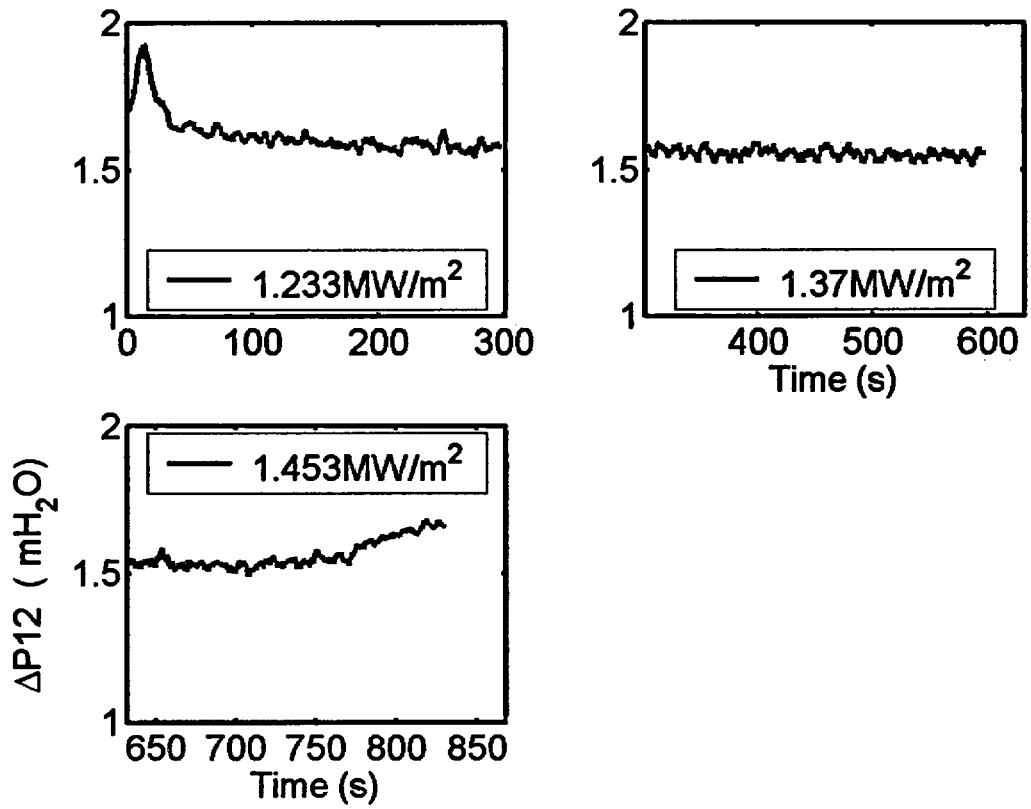

Figure A16.17. Differential Pressure ΔP12 at different heat fluxes.

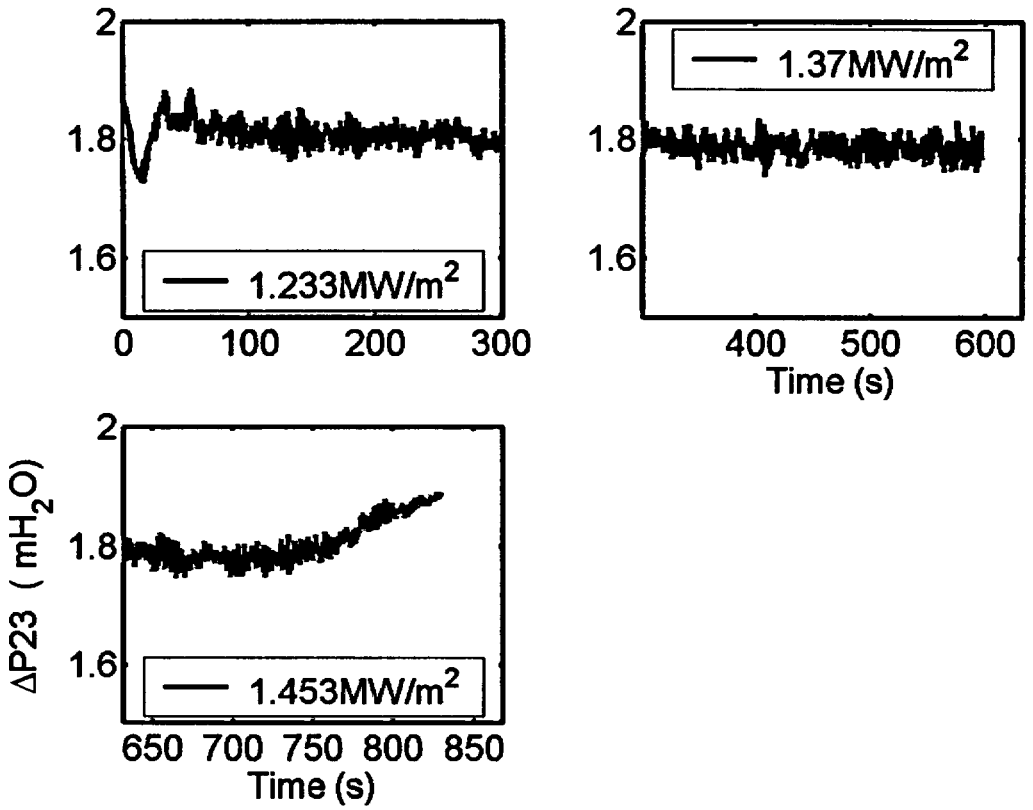

Figure A16.18. Differential Pressure ΔP23 at different heat fluxes.

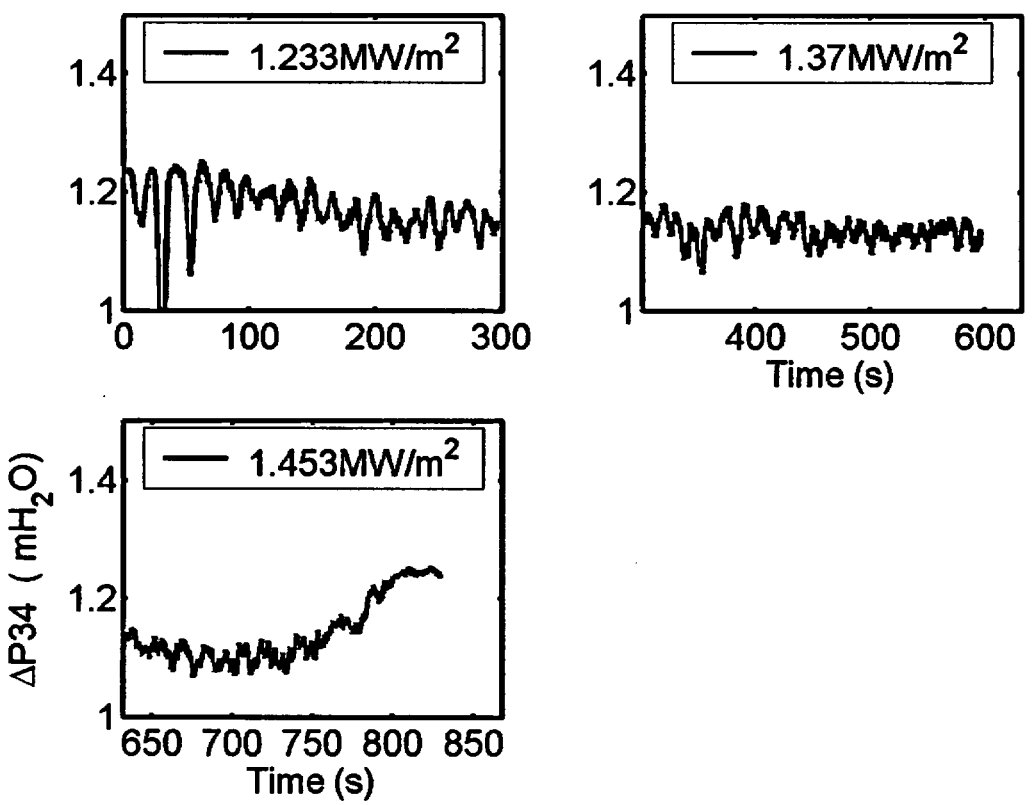

Figure A16.19. Differential Pressure ΔP34 at different heat fluxes.

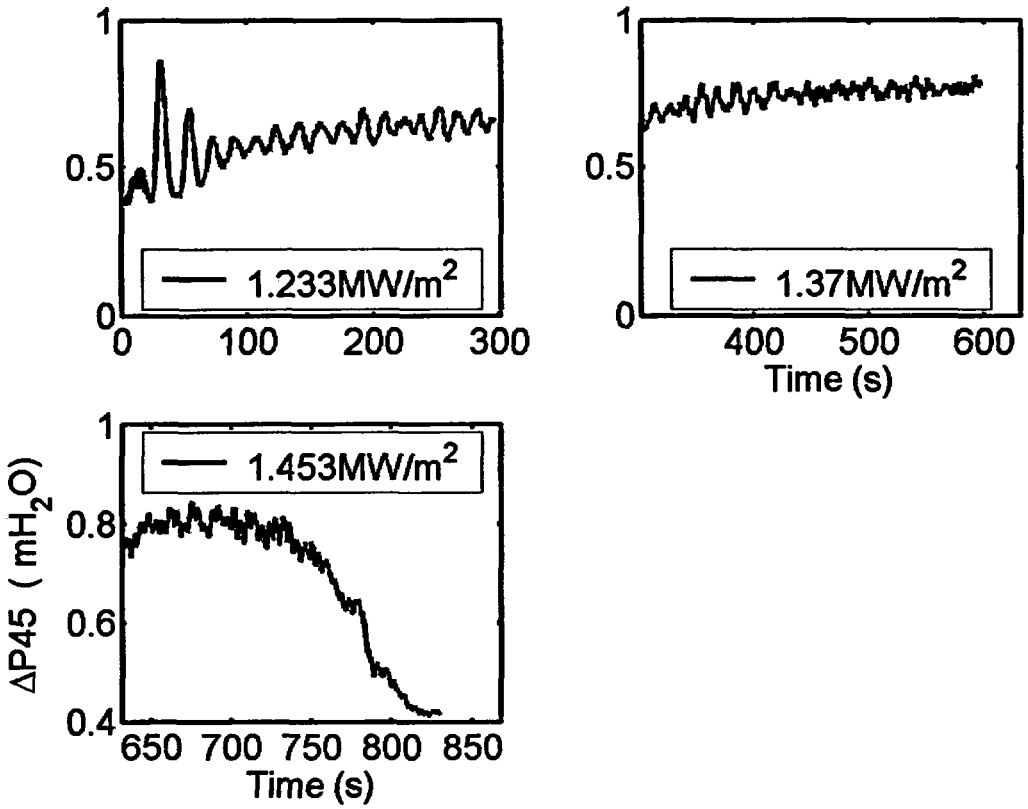

Figure A16.20. Differential Pressure ΔP45 at different heat fluxes.

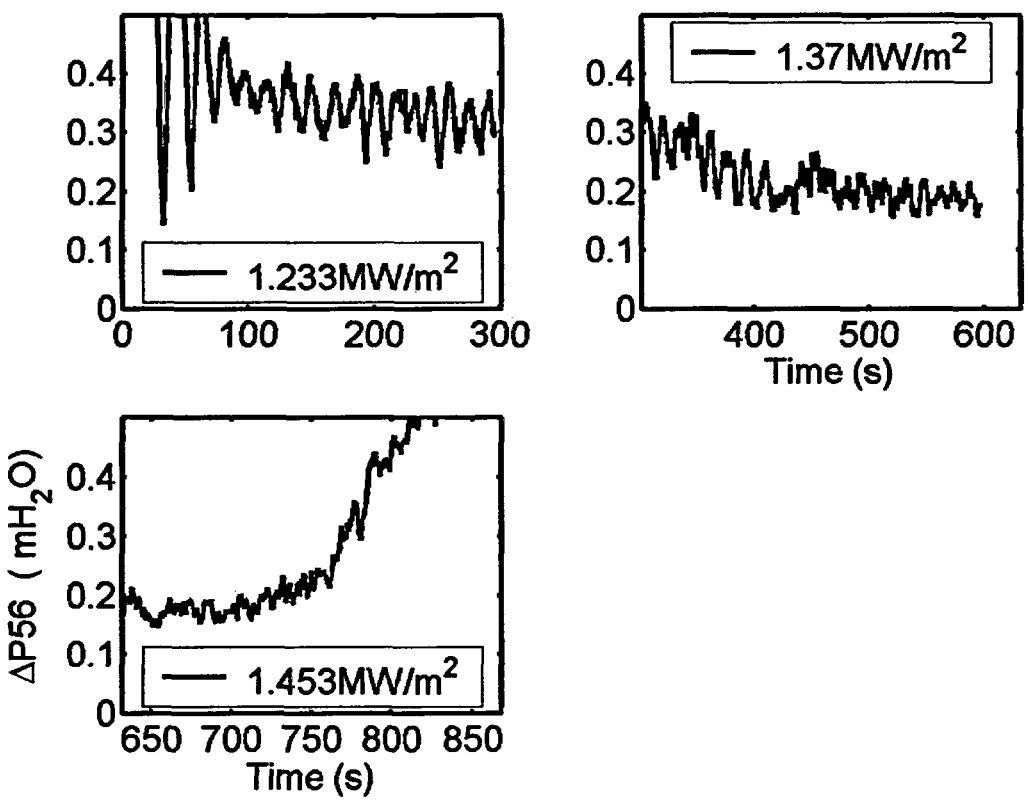

Figure A16.21 Differential Pressure ΔP56 at different heat fluxes.

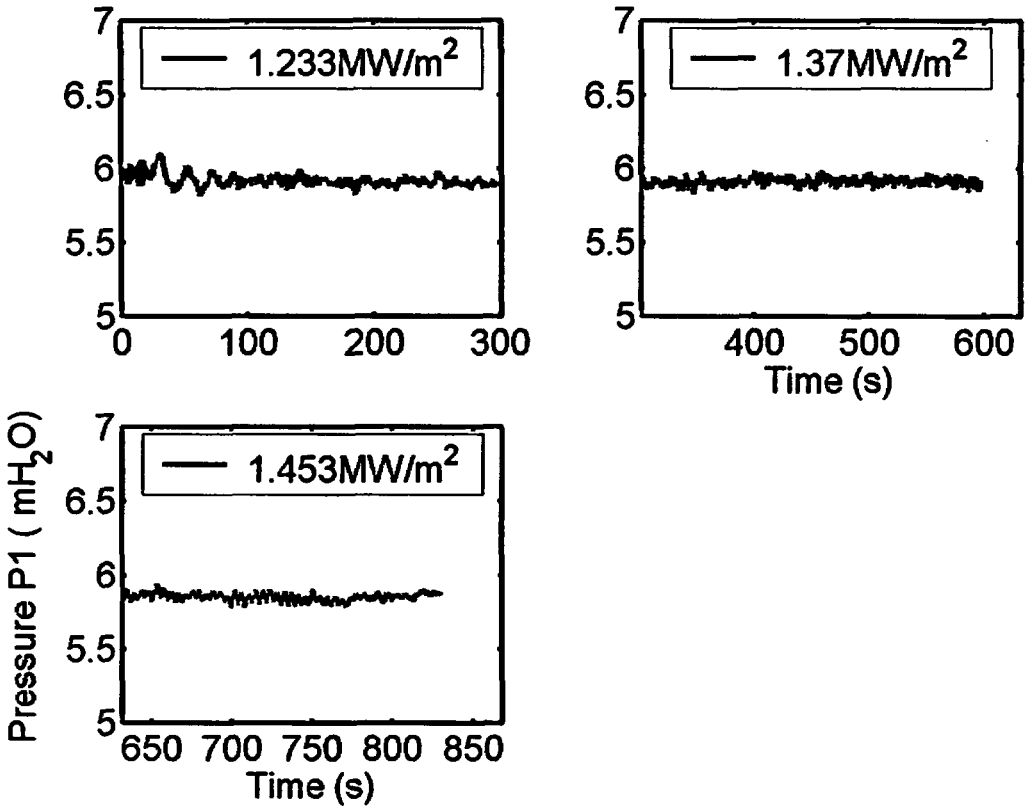

Figure A16.22 Pressure P1 at different heat fluxes.

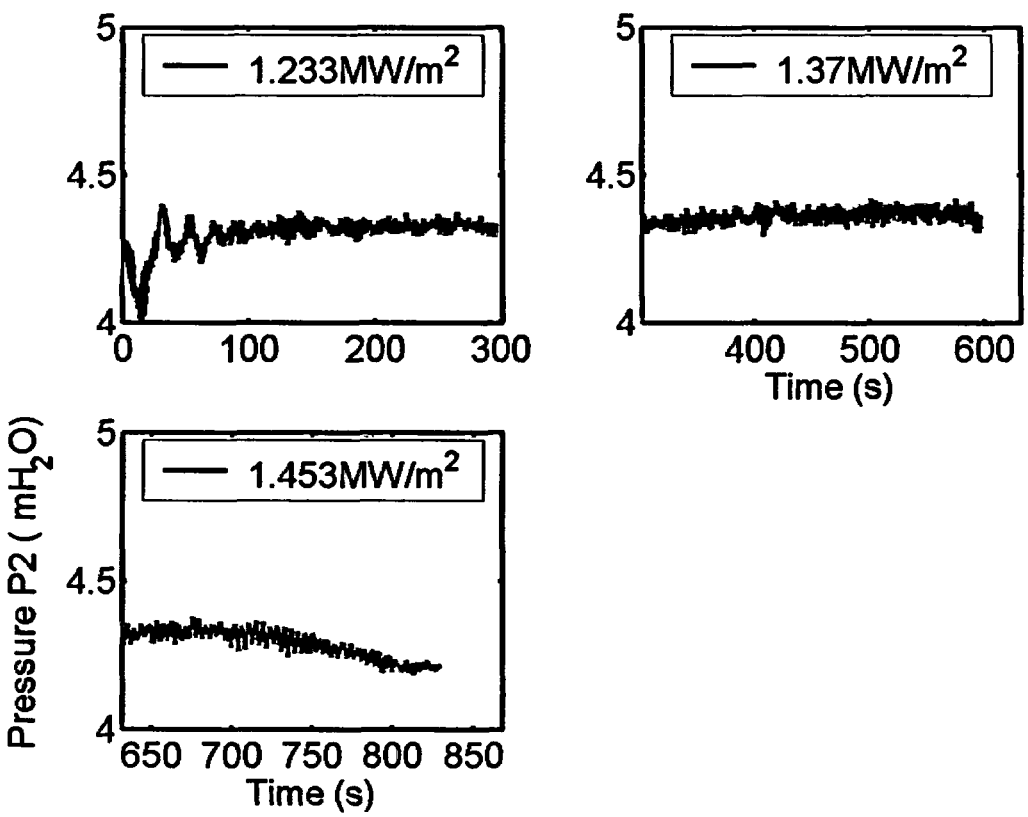

Figure A16.23 Pressure P2 at different heat fluxes.

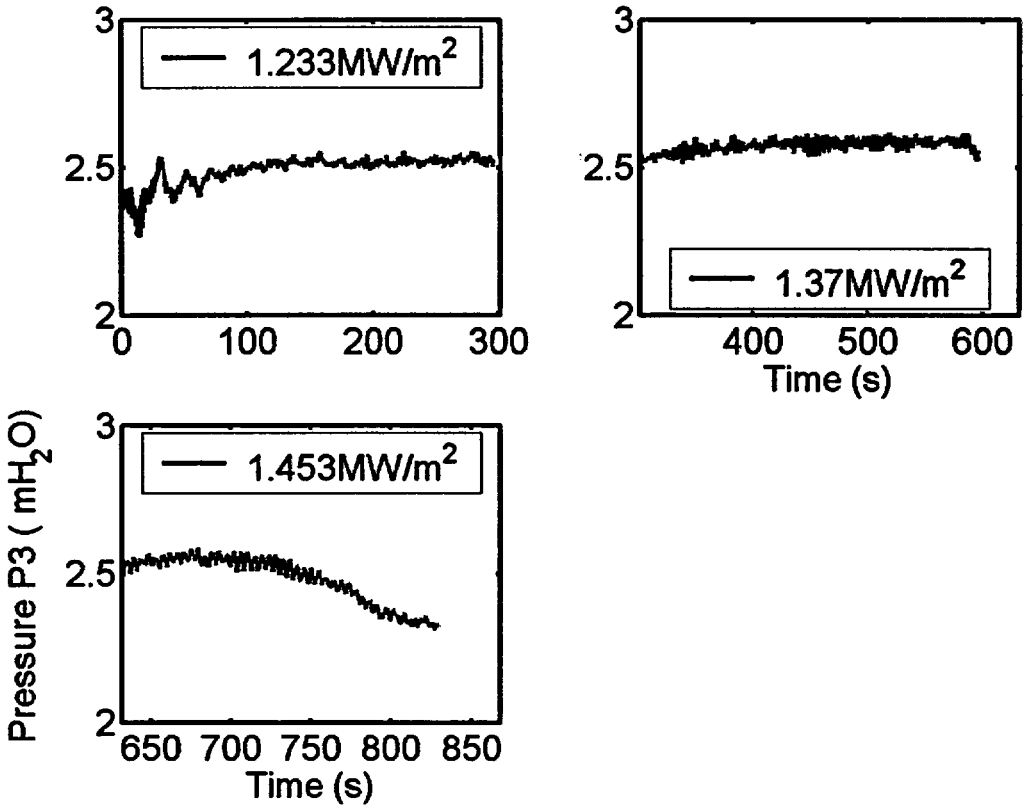

Figure A16.24 Pressure P3 at different heat fluxes.

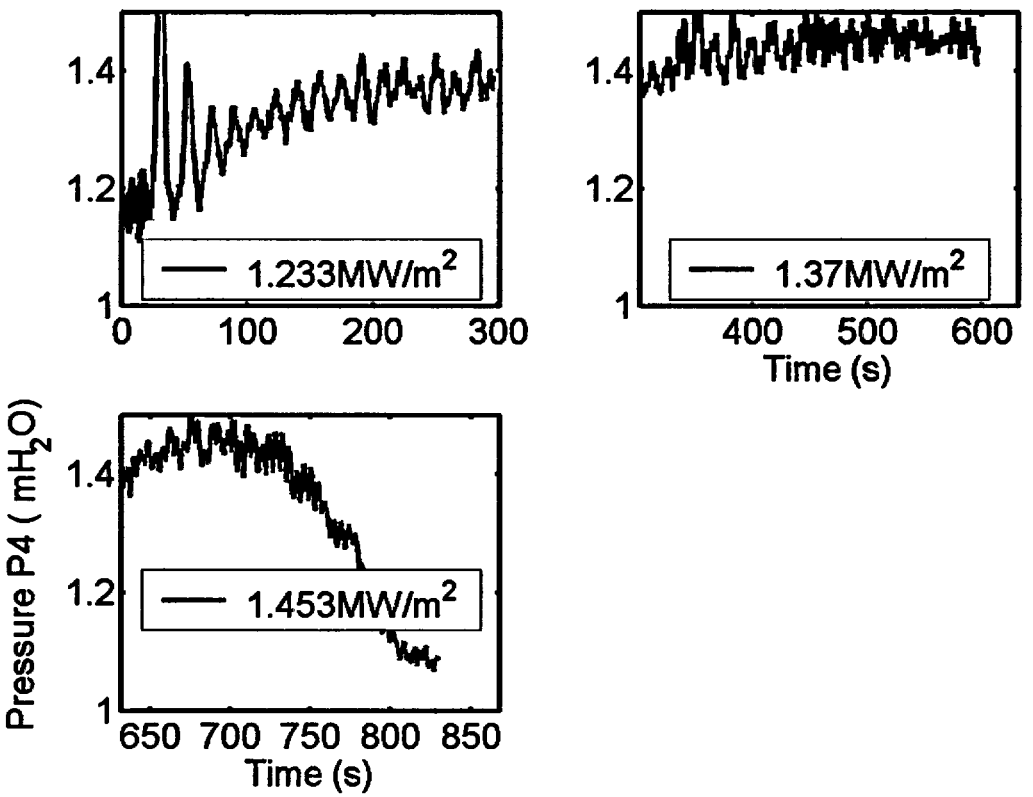

Figure 16.25 Pressure P4 at different heat fluxes.

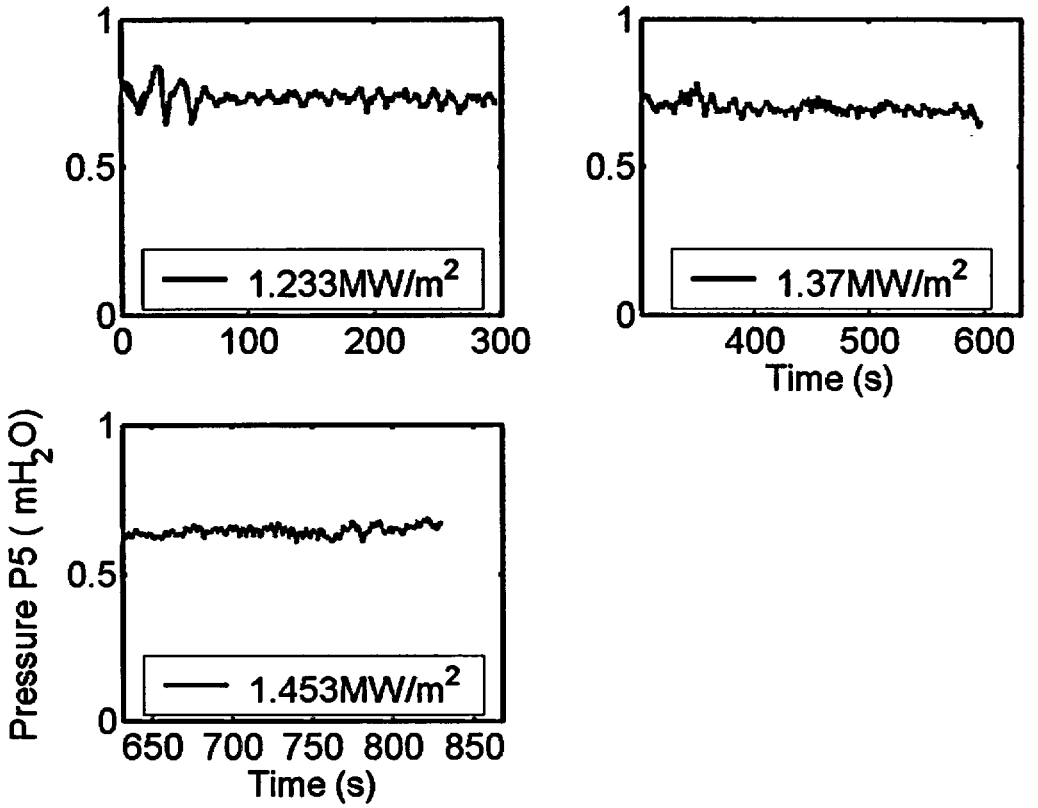

Figure A16.26 Pressure P5 at different heat fluxes.

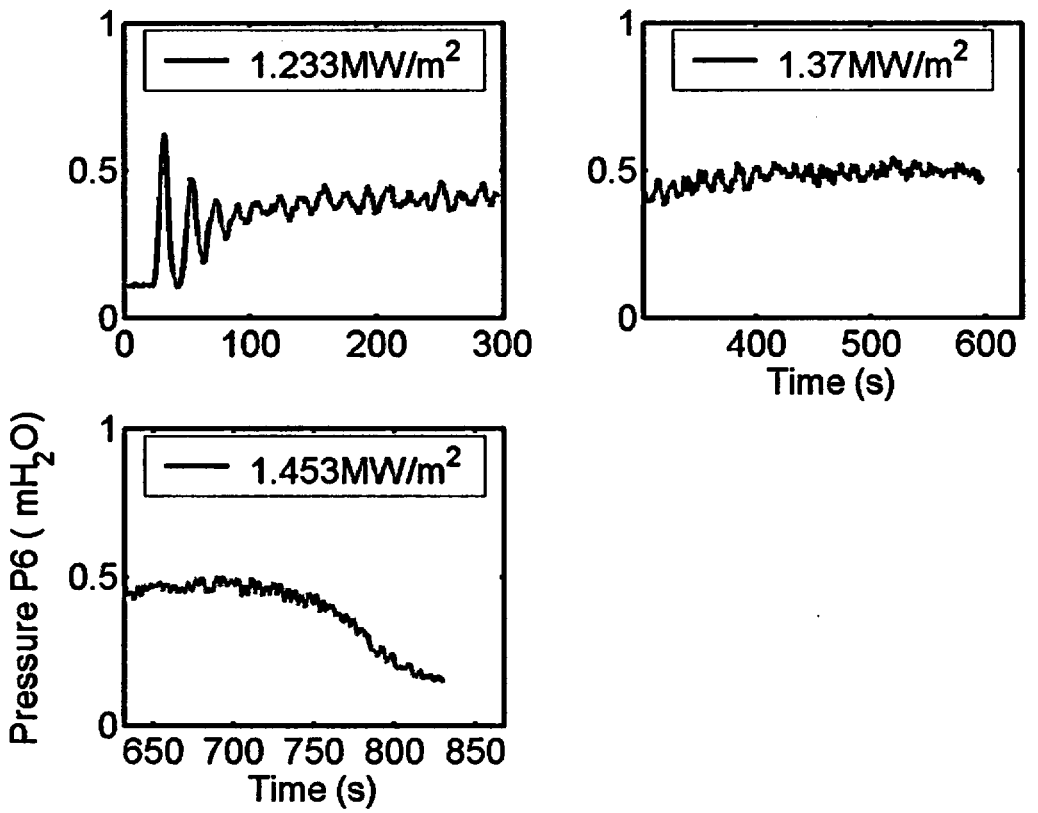

Figure A16.27 Pressure P6 at different heat fluxes.

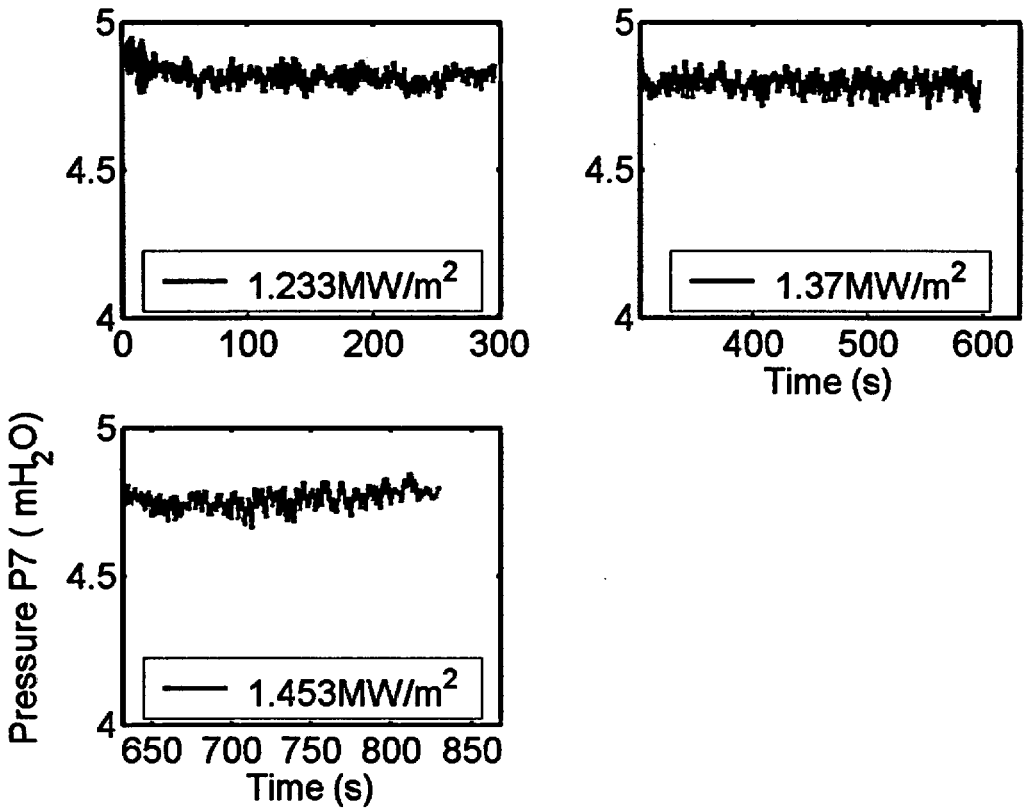

Figure A16.28 Pressure P7 at different heat fluxes.

ID #17

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T40B	1425	LC4	71	C	01/03/2003/14:40

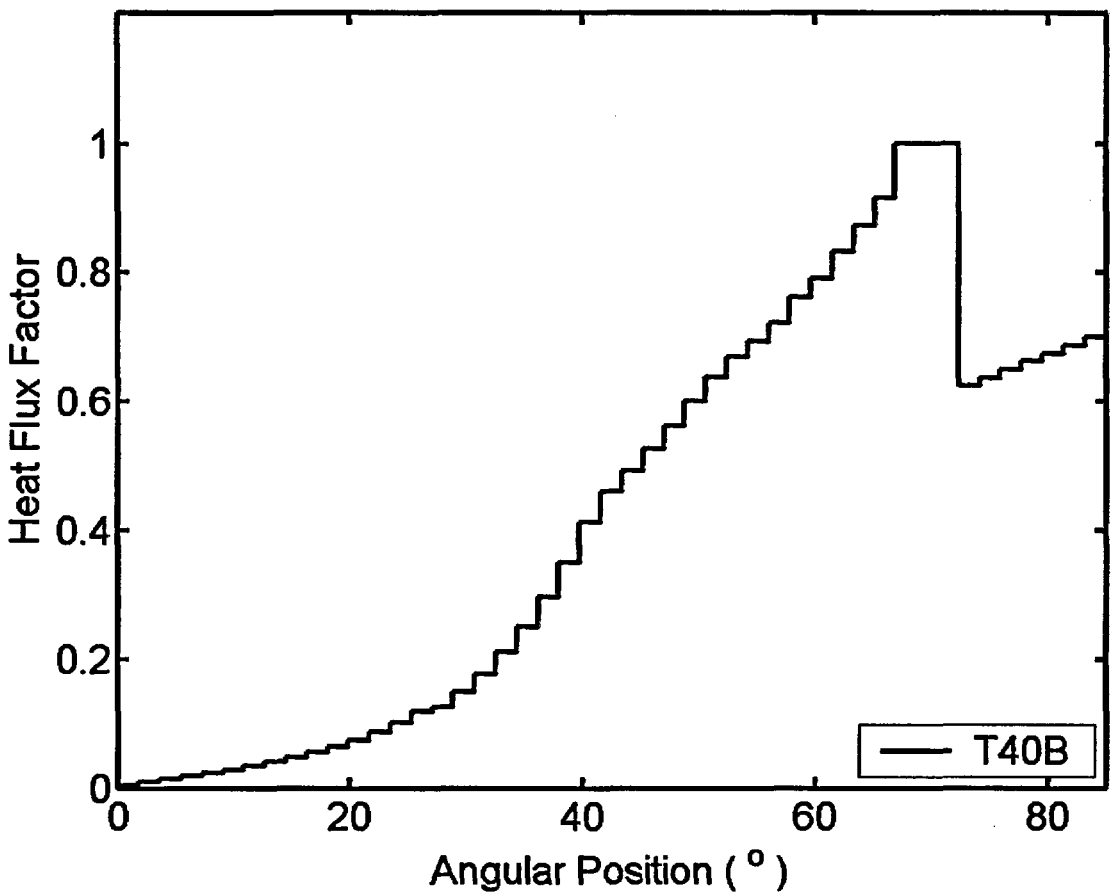

Figure A17.1. Power shape.

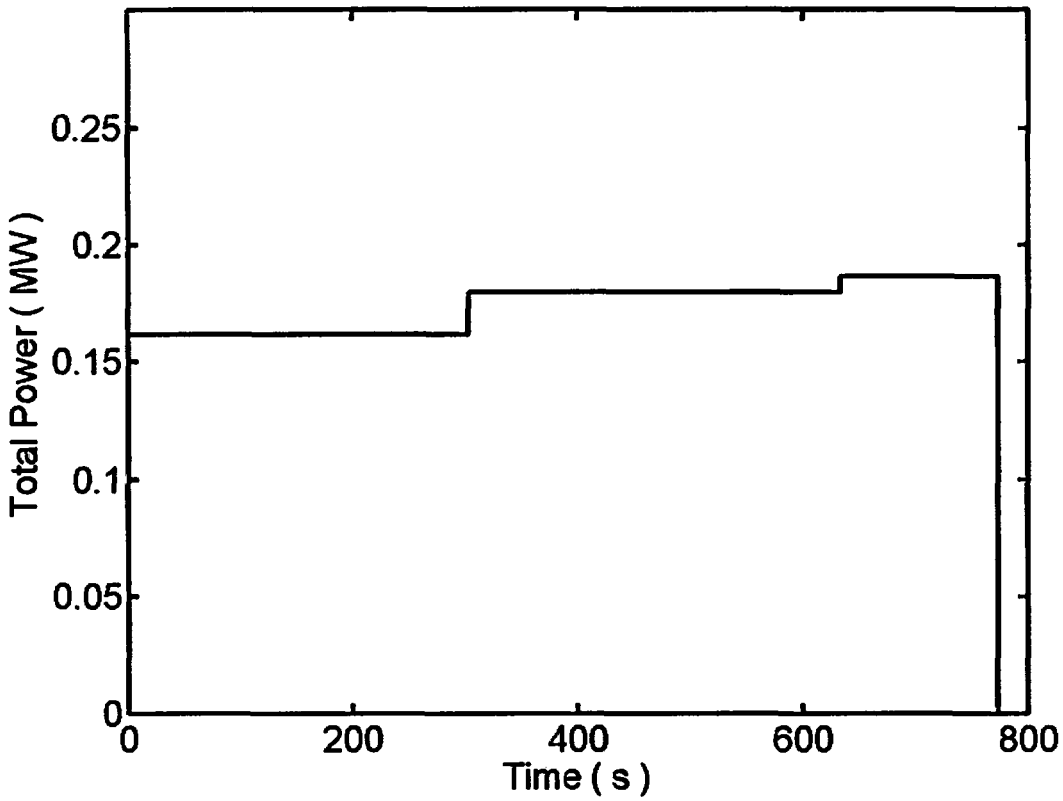

Figure A17.2. Total input power history.

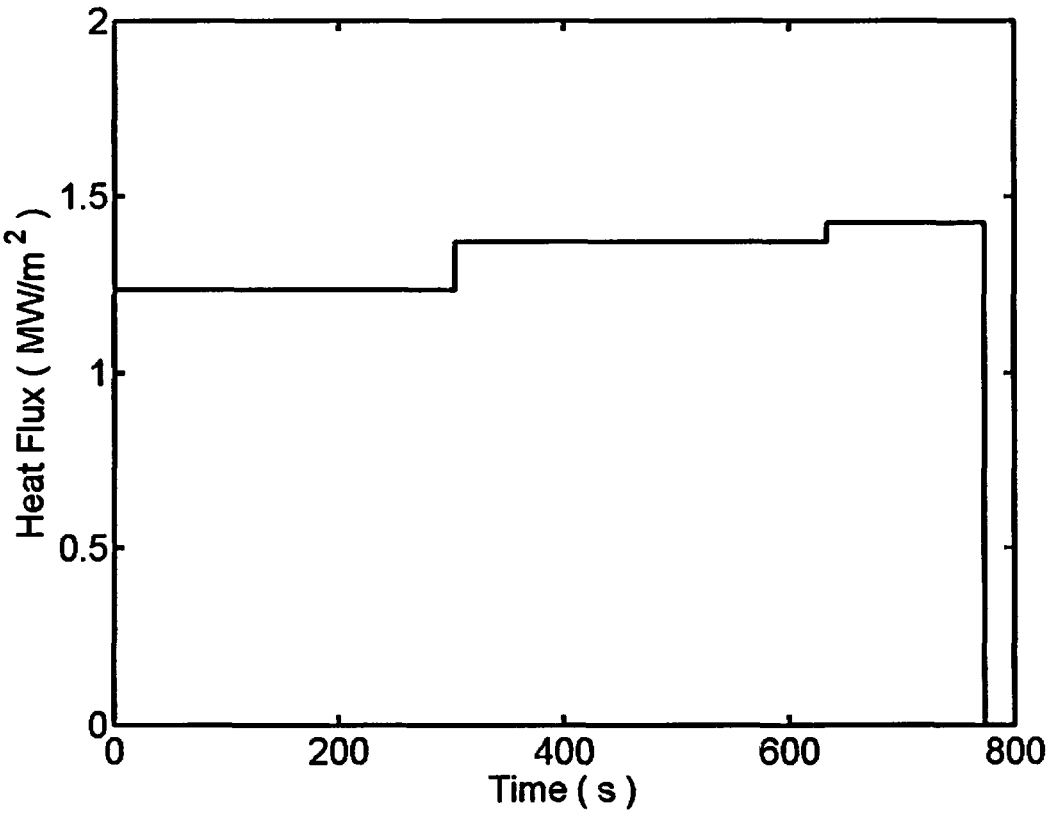

Figure A17.3. Heat flux history.

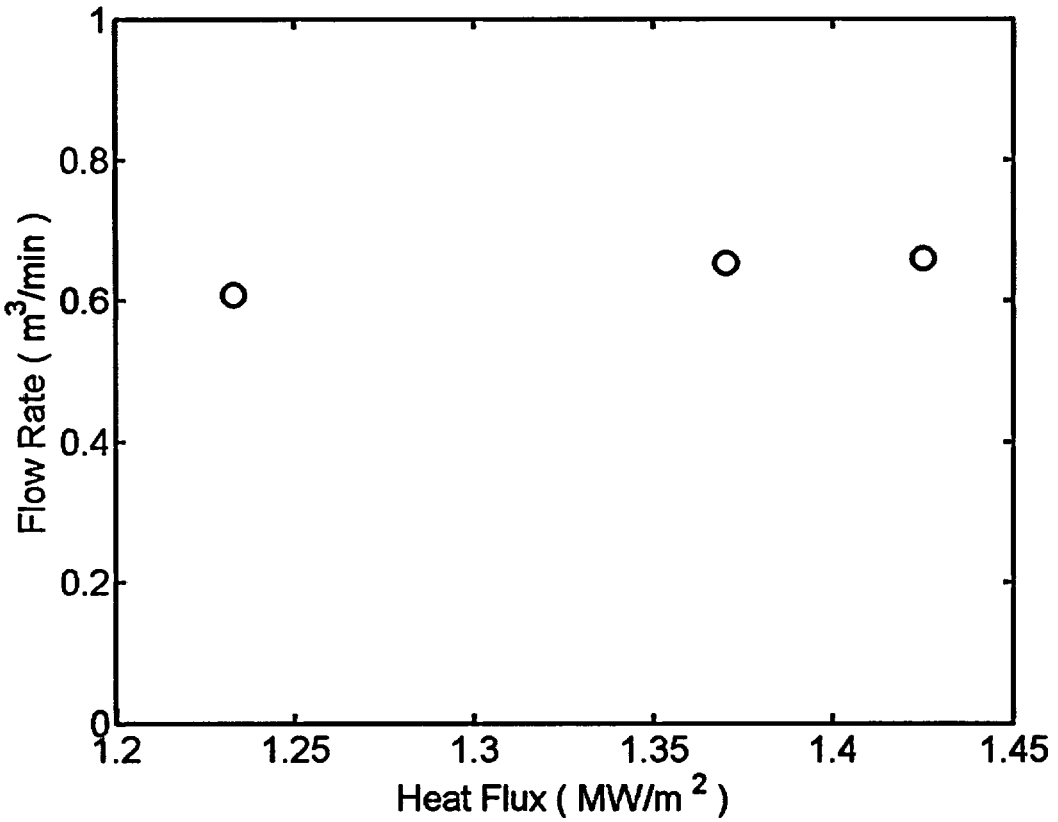

Figure A17.4. Flow rate vs. heat fluxes.

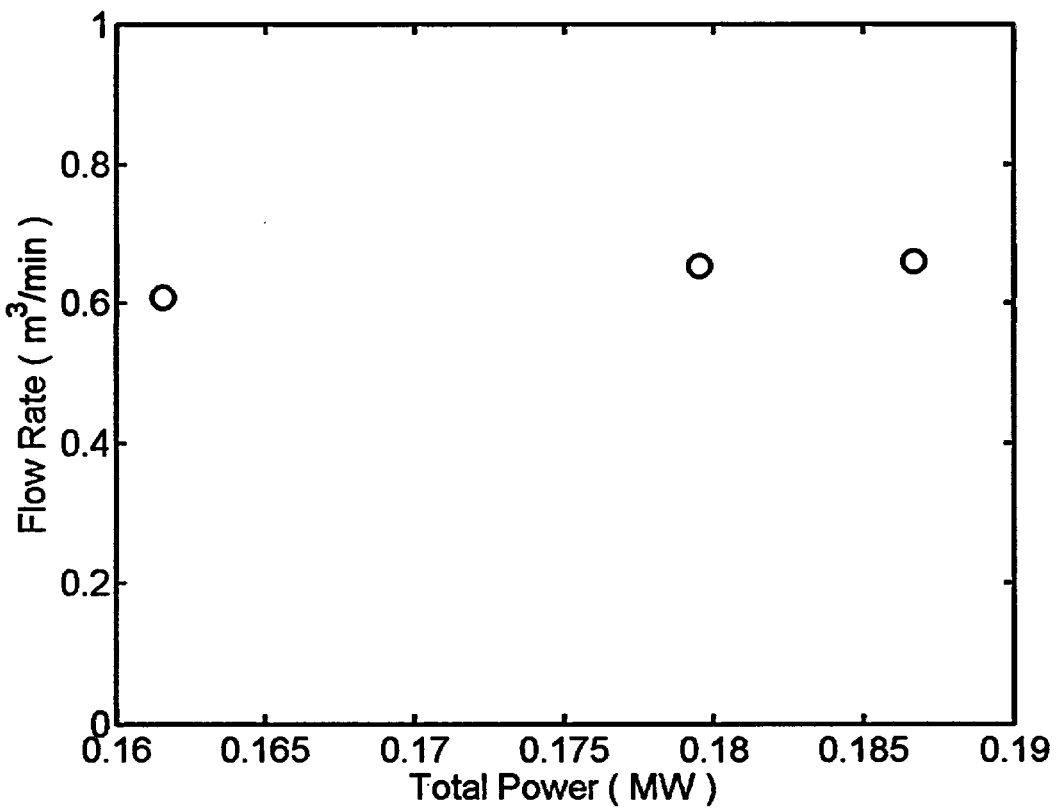

Figure A17.5. Flow rate vs. total input power.

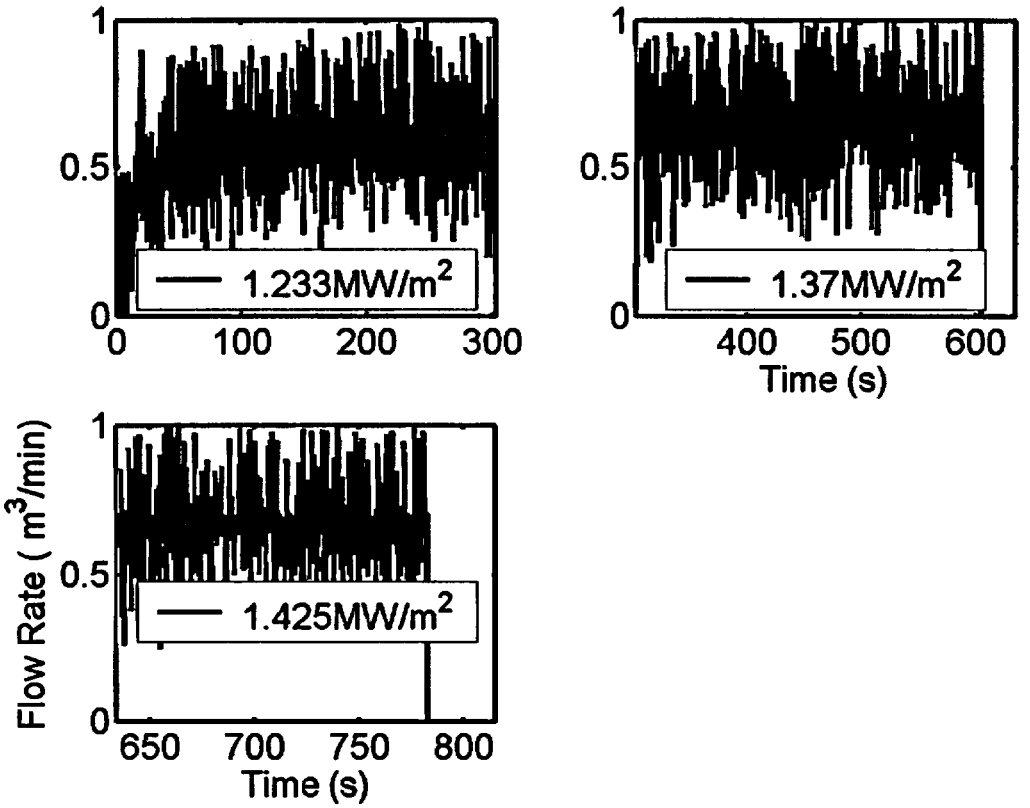

Figure A17.6. Flow rates at different heat fluxes.

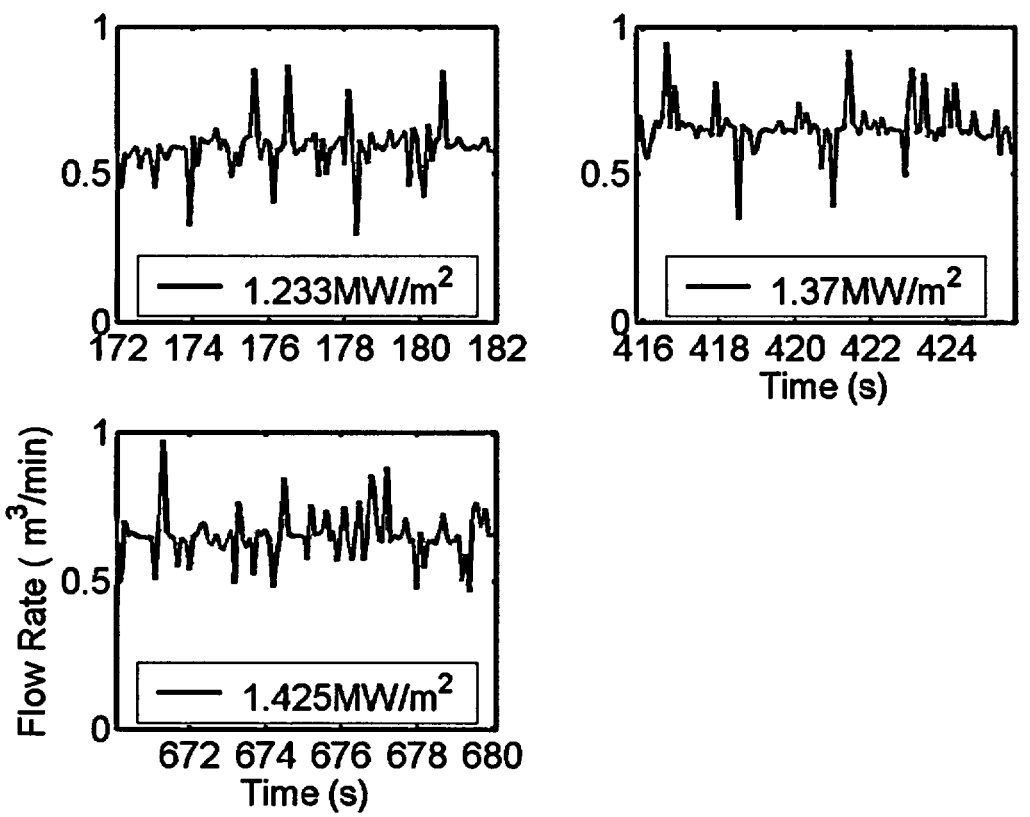

Figure A17.7. Flow rates at different heat fluxes at selected time intervals.

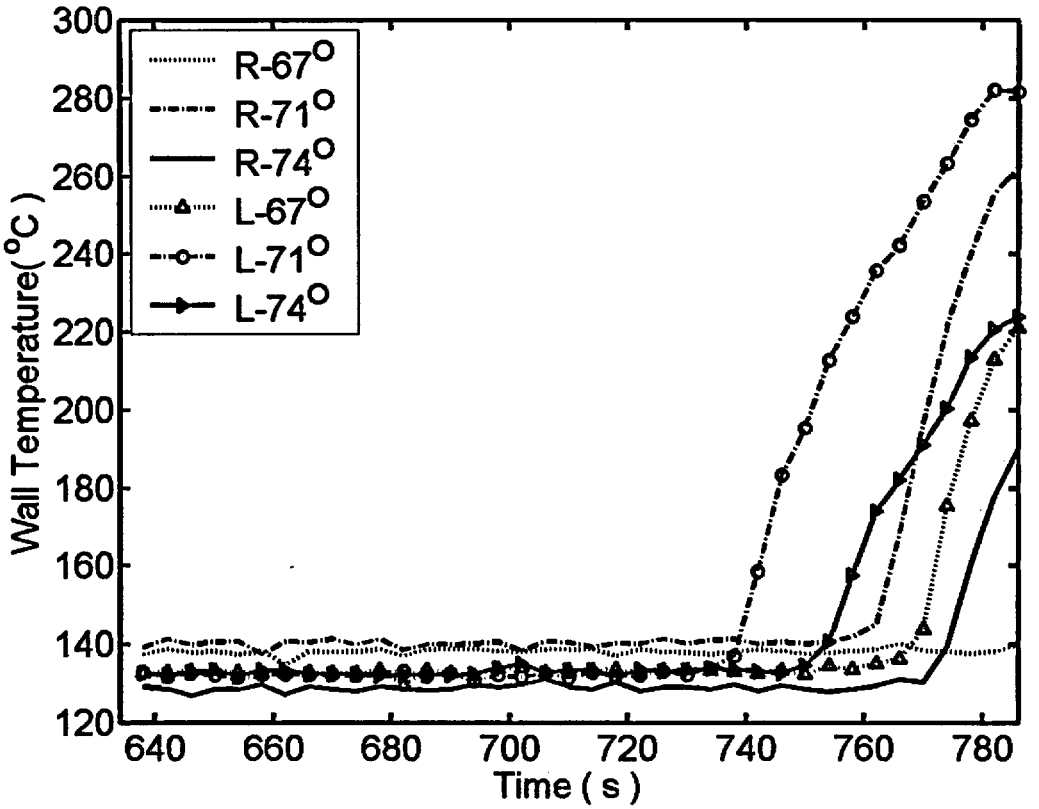

Figure A17.8. Temperature history at CHF.

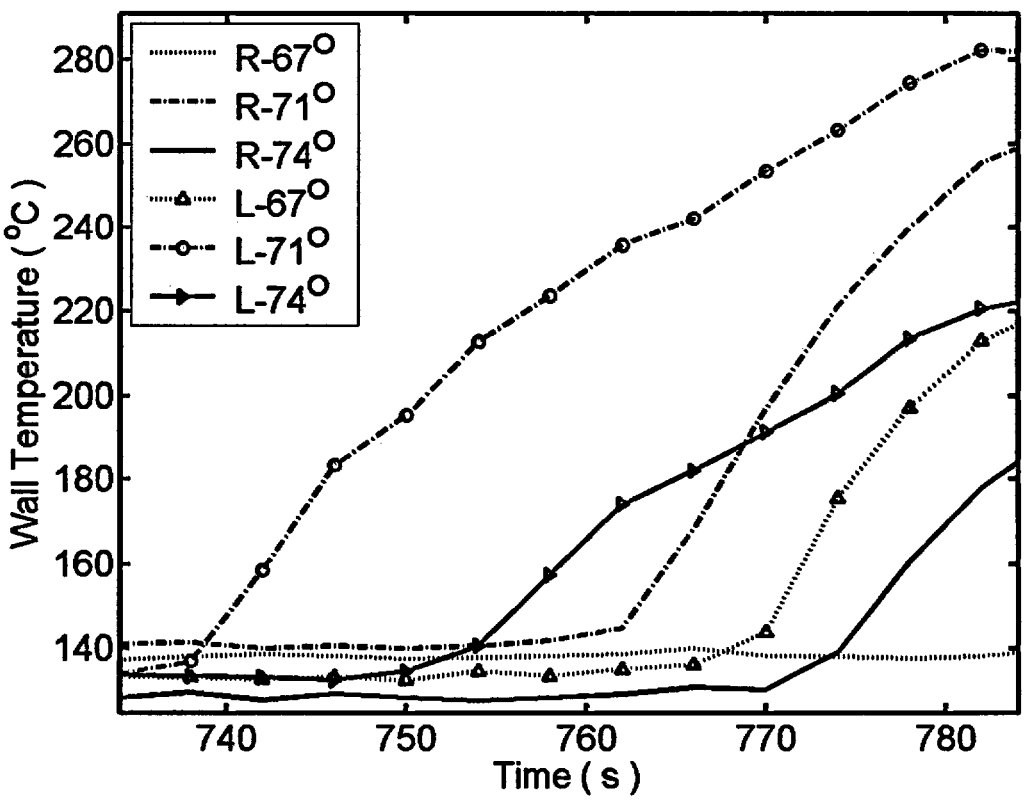

Figure A17.9. Temperature history at CHF in detail.

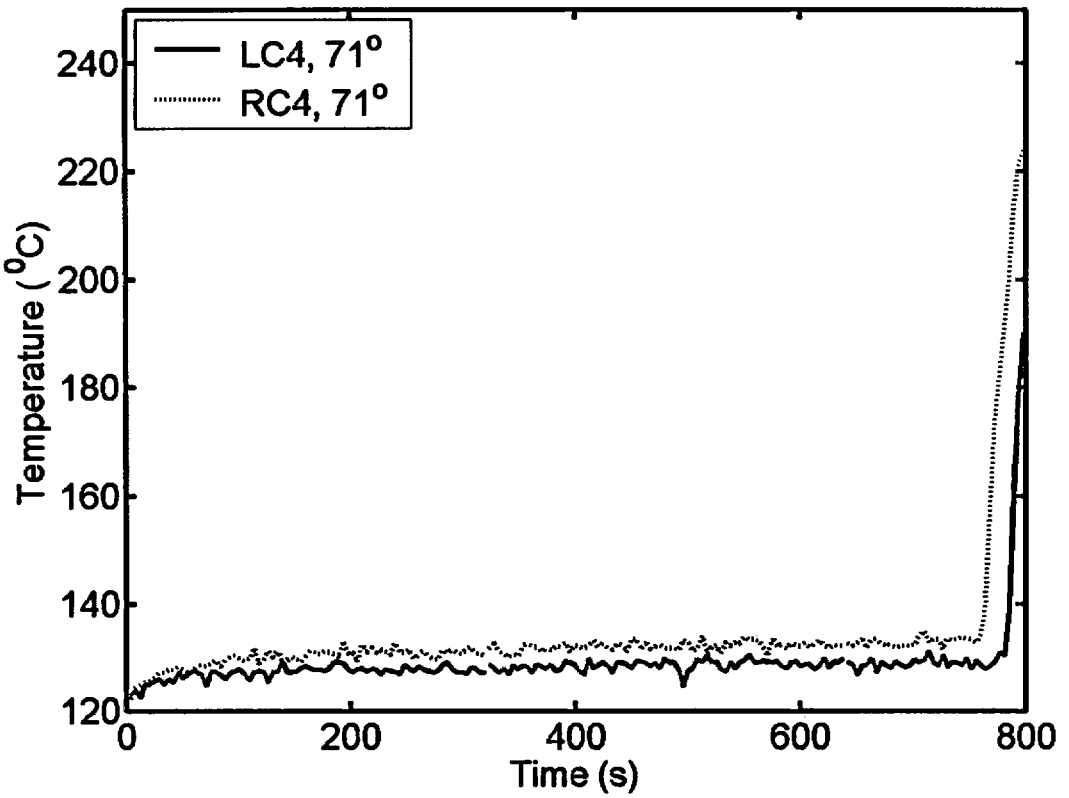

Figure A17.10 Wall temperature history measured by two thermocouples LC4 and RC4.

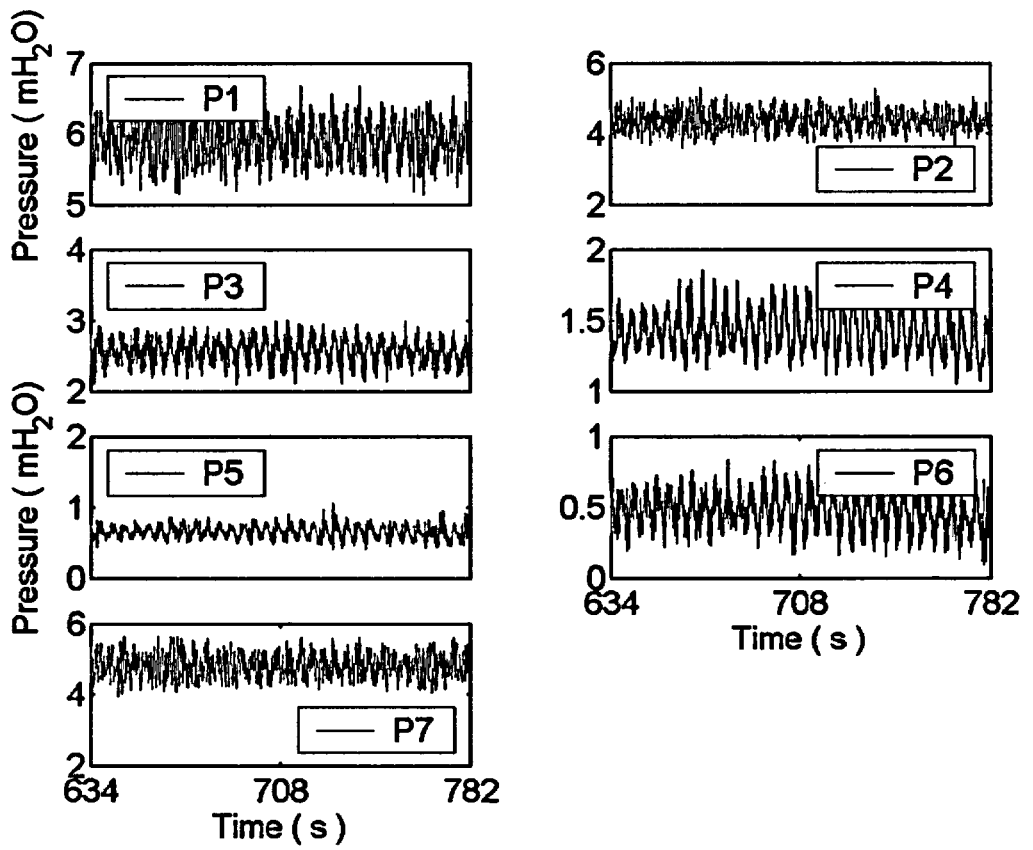

Figure A17.11. Pressure transducer data at q = 1.425 MW/m^2.

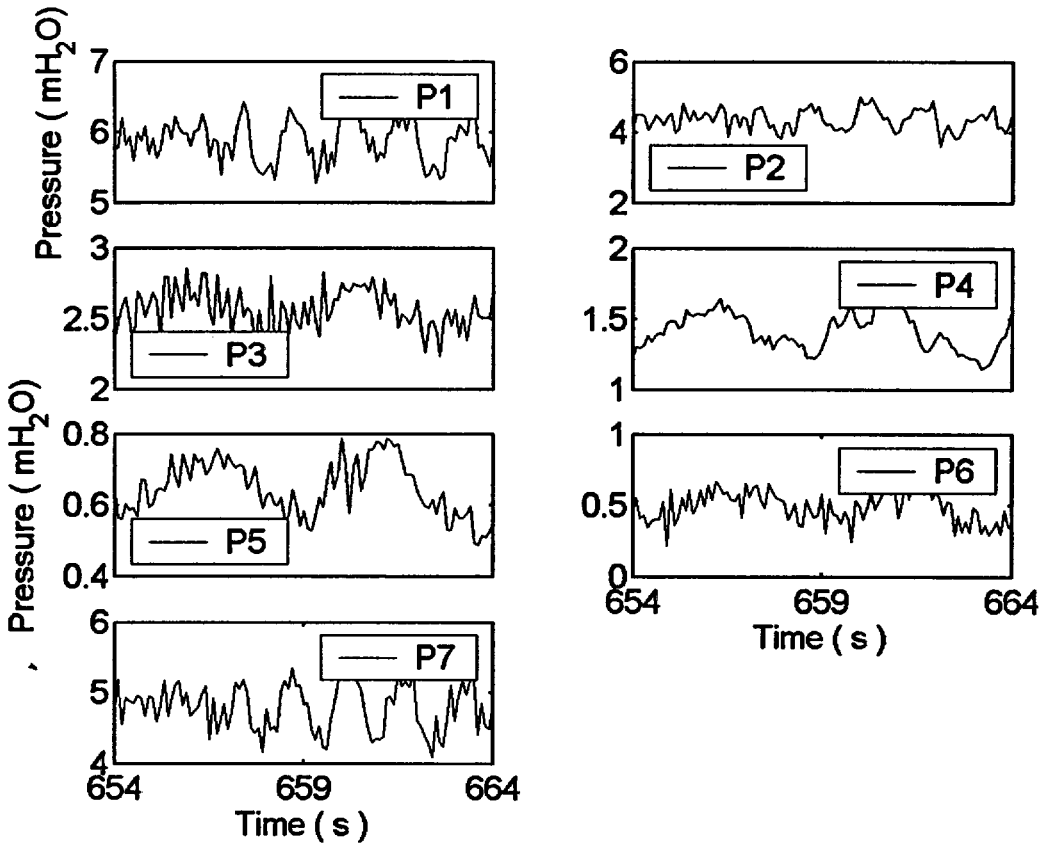

Figure A17.12. Pressure data in detail at q = 1.425 MW/m^2.

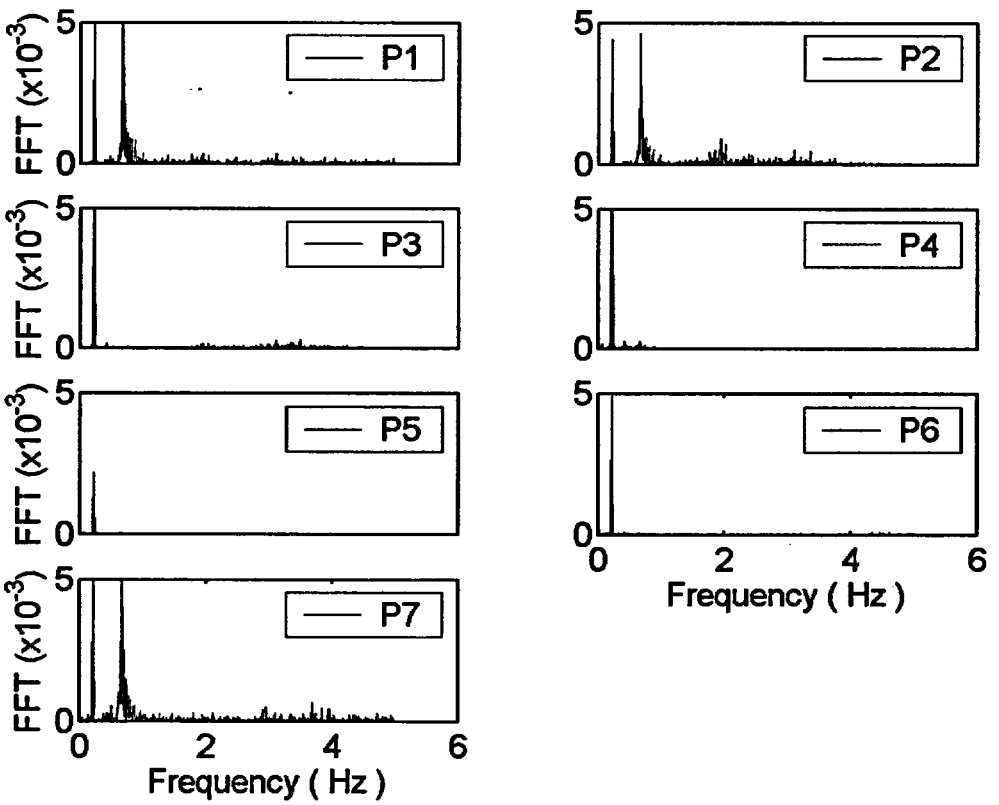

Figure A17.13. FFT of pressure time series at q = 1.425 MW/m^2.

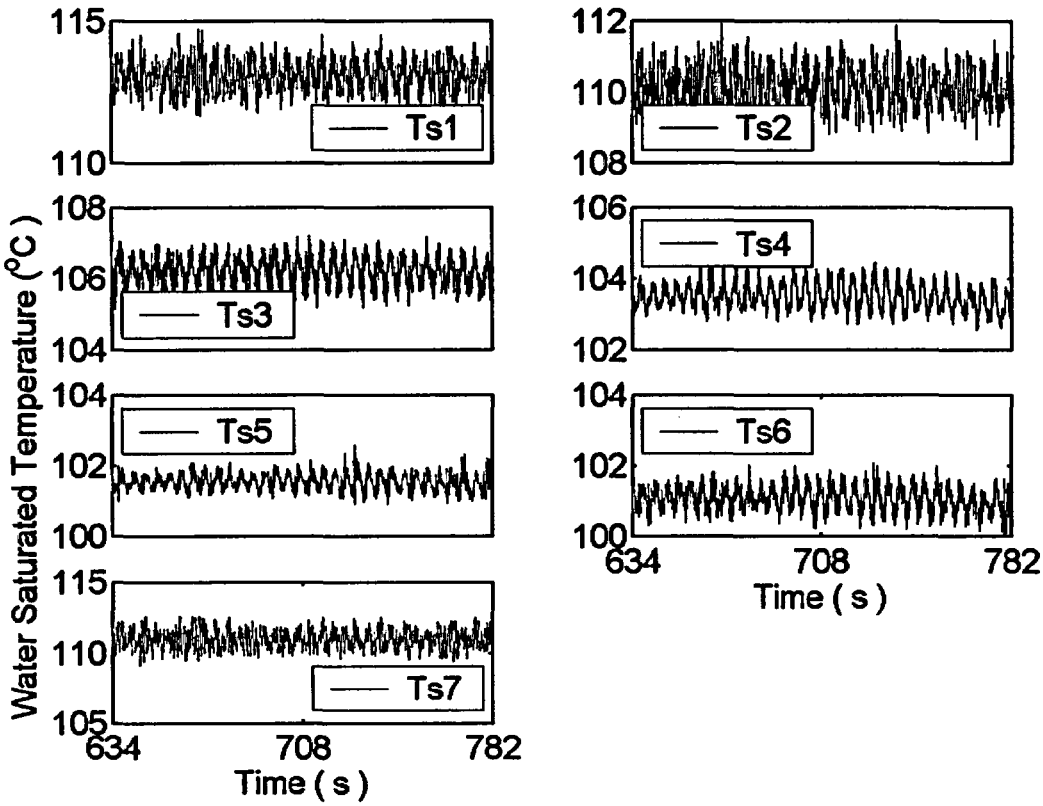

Figure A17.14. Water saturation temperature calculated from local pressure data at q = 1.425 MW/m^2.

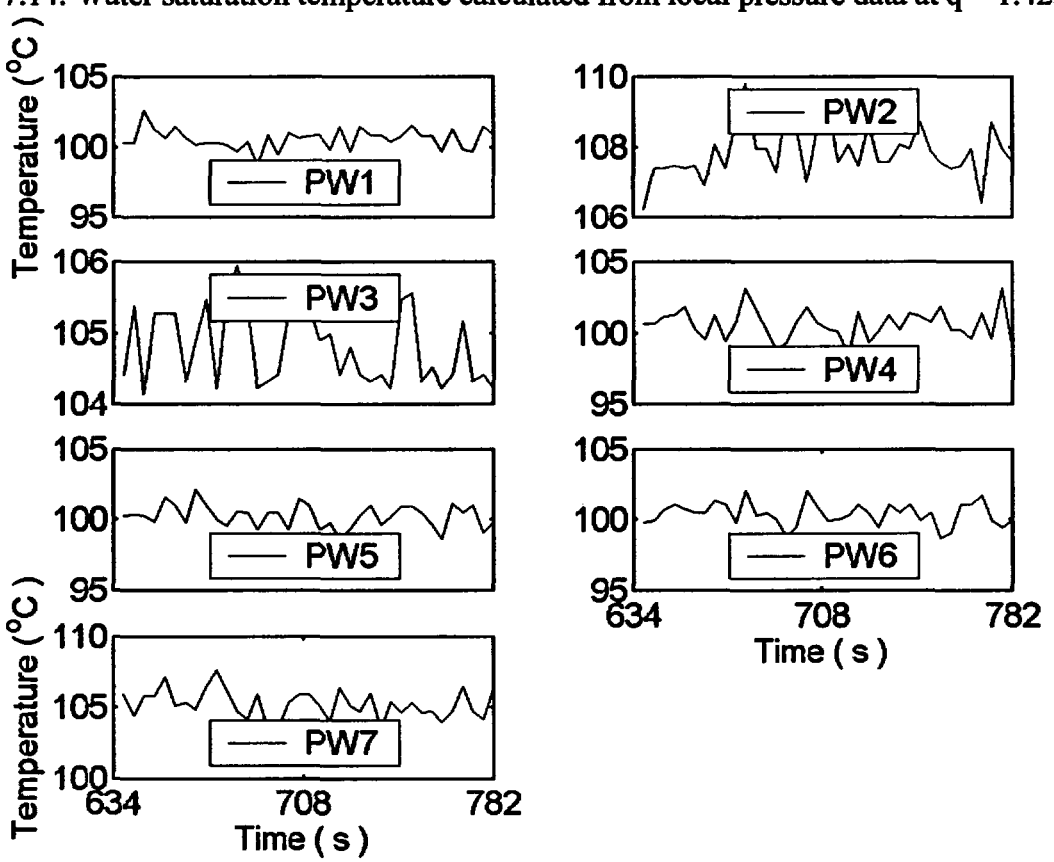

Figure A17.15. Water temperature measured at location of pressure transducer at q = 1.425 MW/m^2.

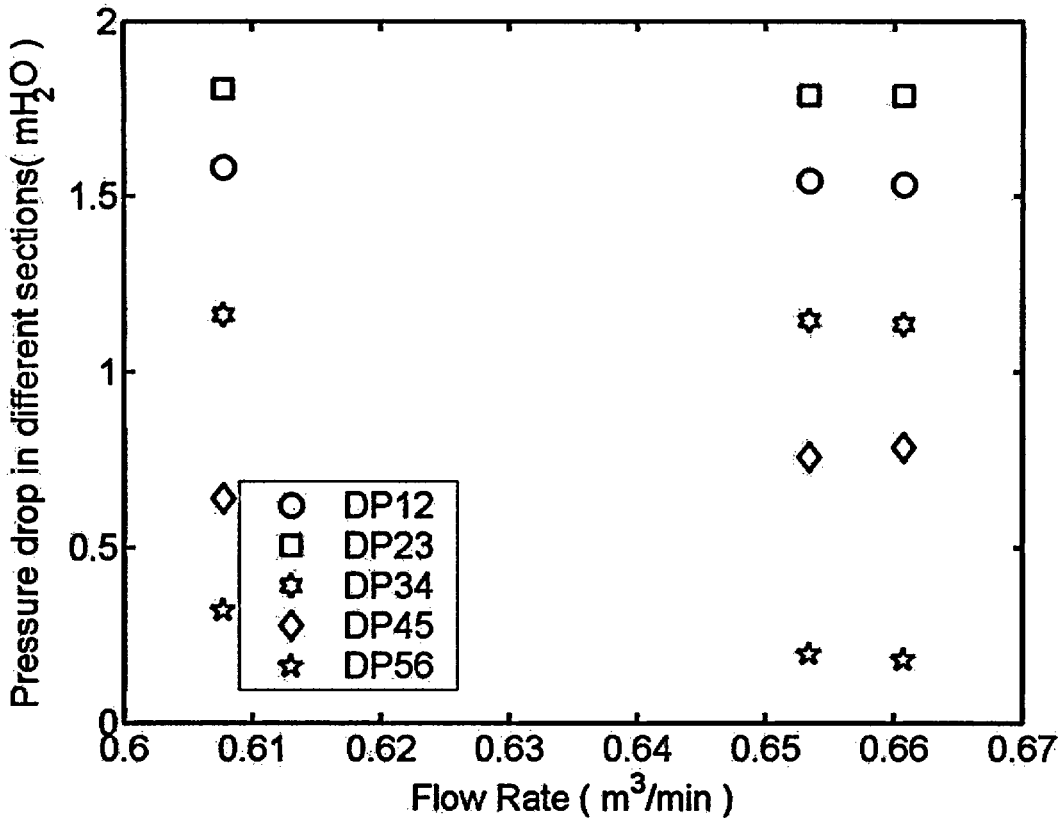

Figure A17.16 Pressure drop vs. flow rate at different heat fluxes.

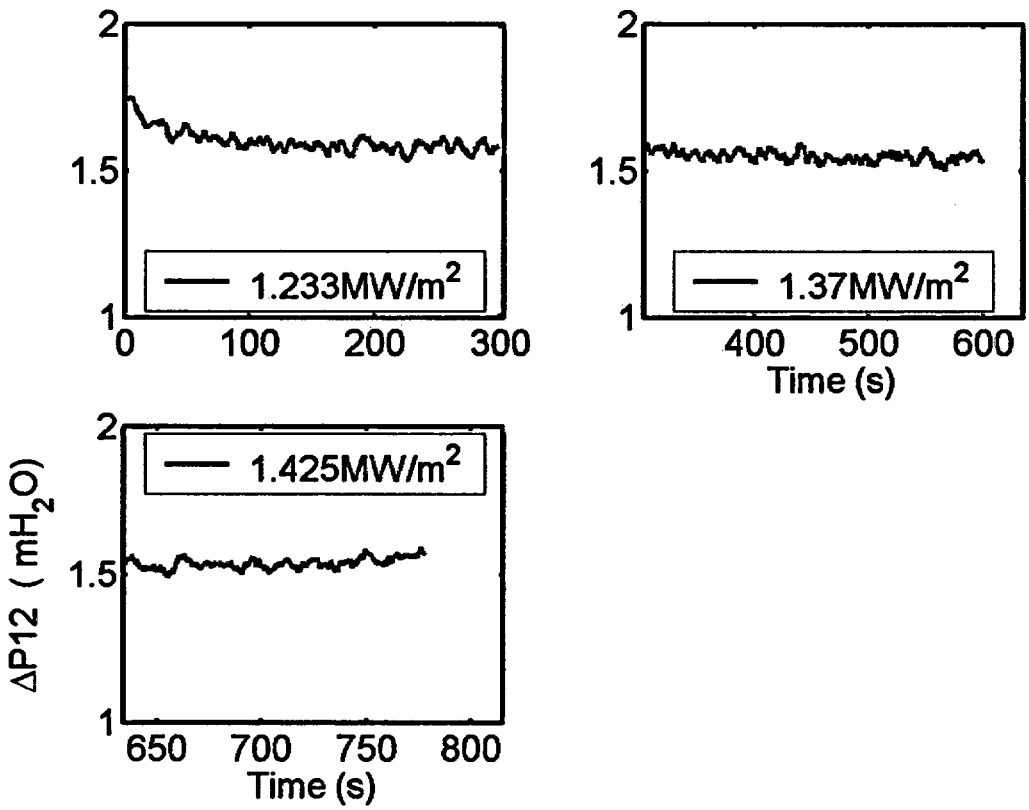

Figure A17.17. Differential Pressure ΔP12 at different heat fluxes.

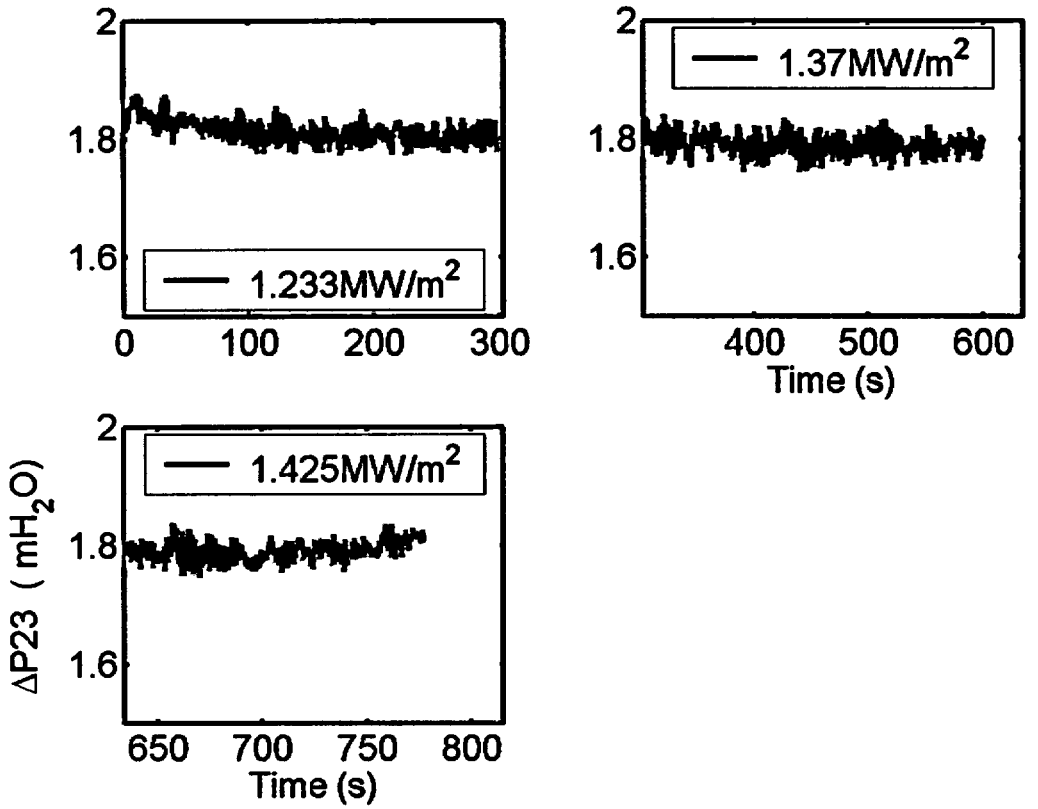

Figure A17.18. Differential Pressure ΔP23 at different heat fluxes.

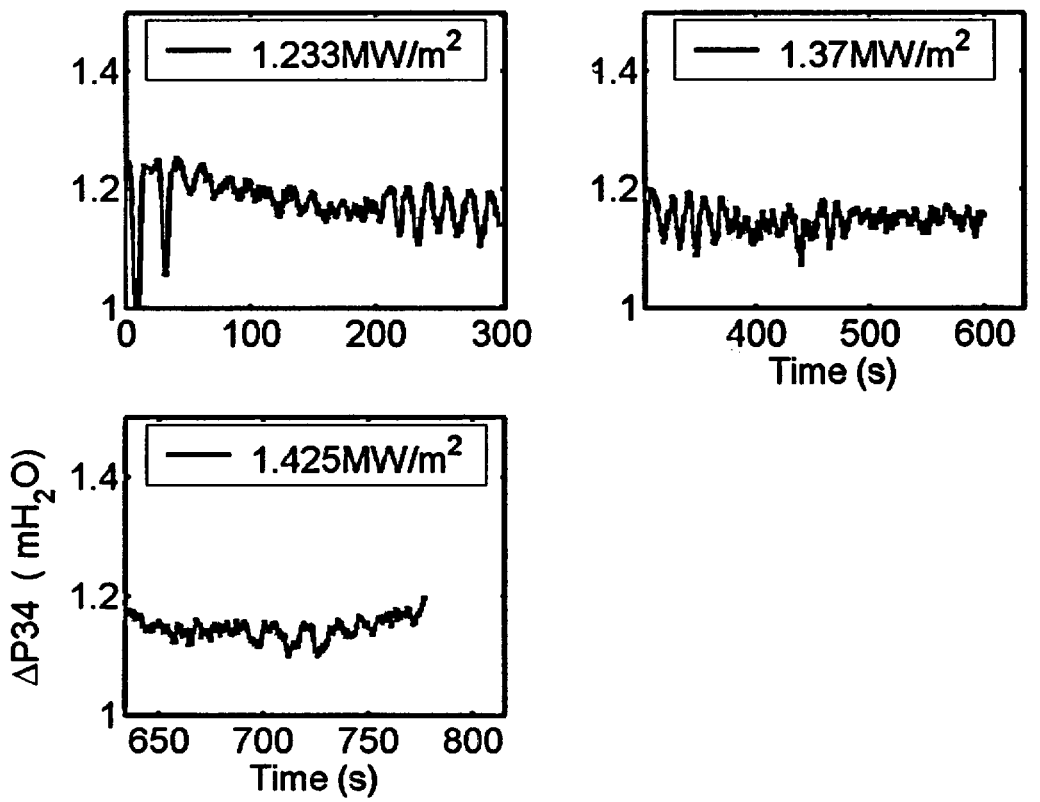

Figure A17.19. Differential Pressure ΔP34 at different heat fluxes.

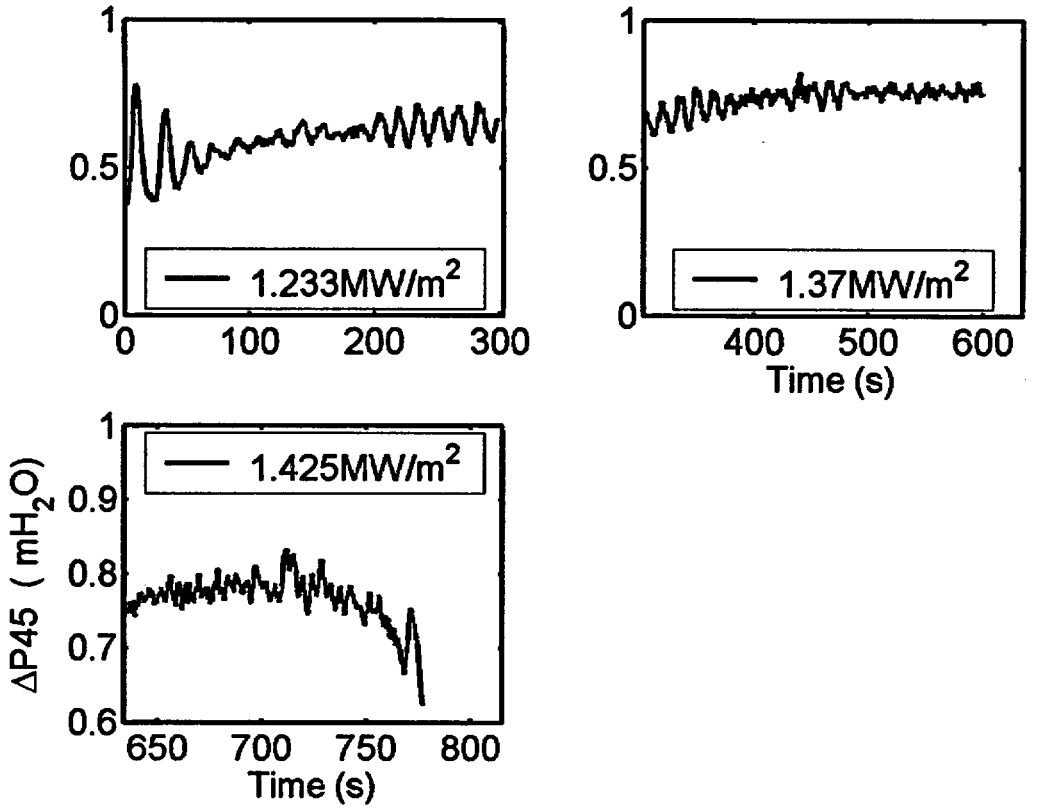

Figure A17.20. Differential Pressure ΔP45 at different heat fluxes.

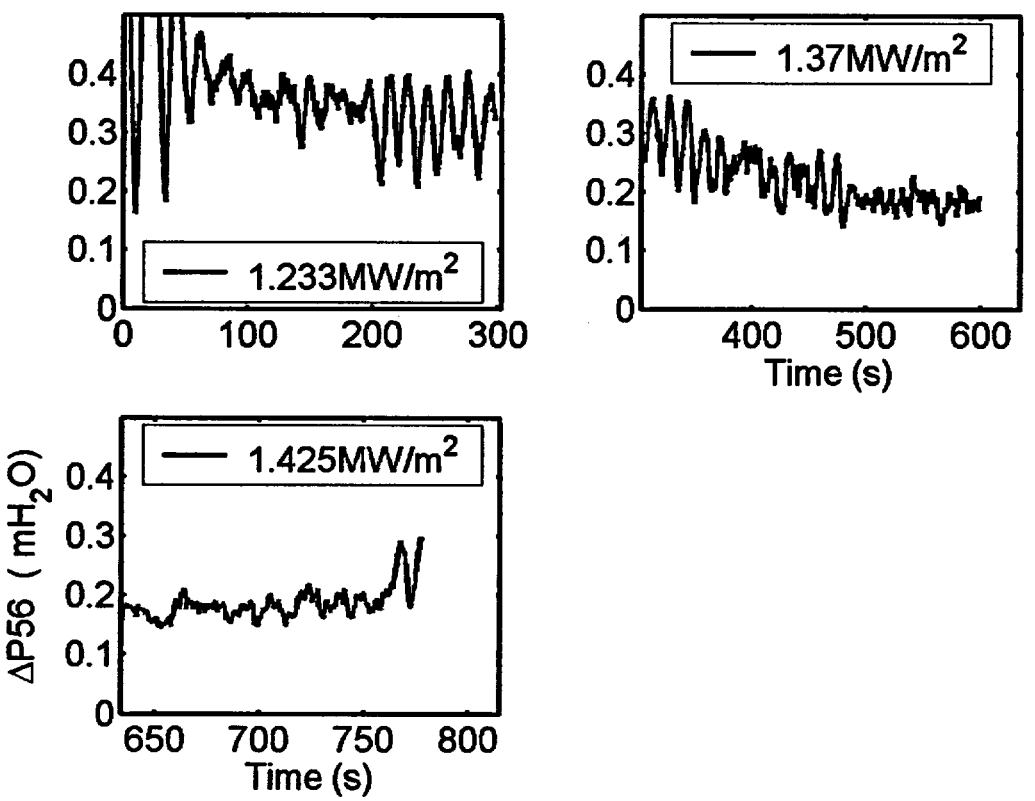

Figure A17.21 Differential Pressure ΔP56 at different heat fluxes.

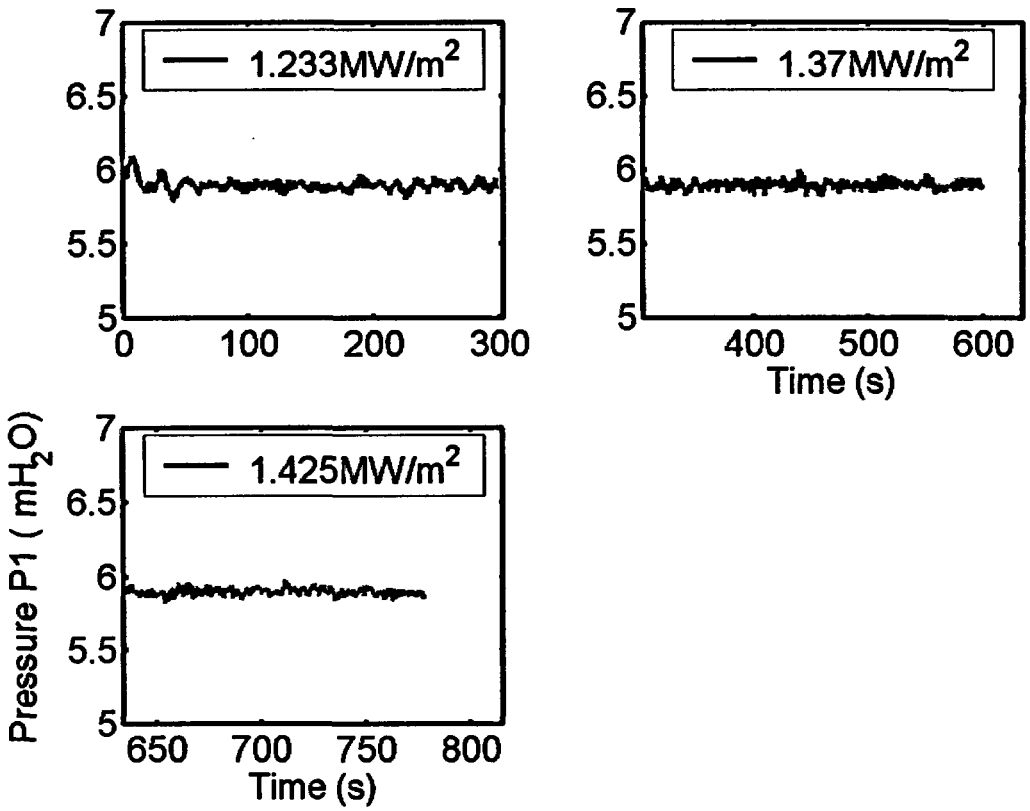

Figure A17.22 Pressure P1 at different heat fluxes.

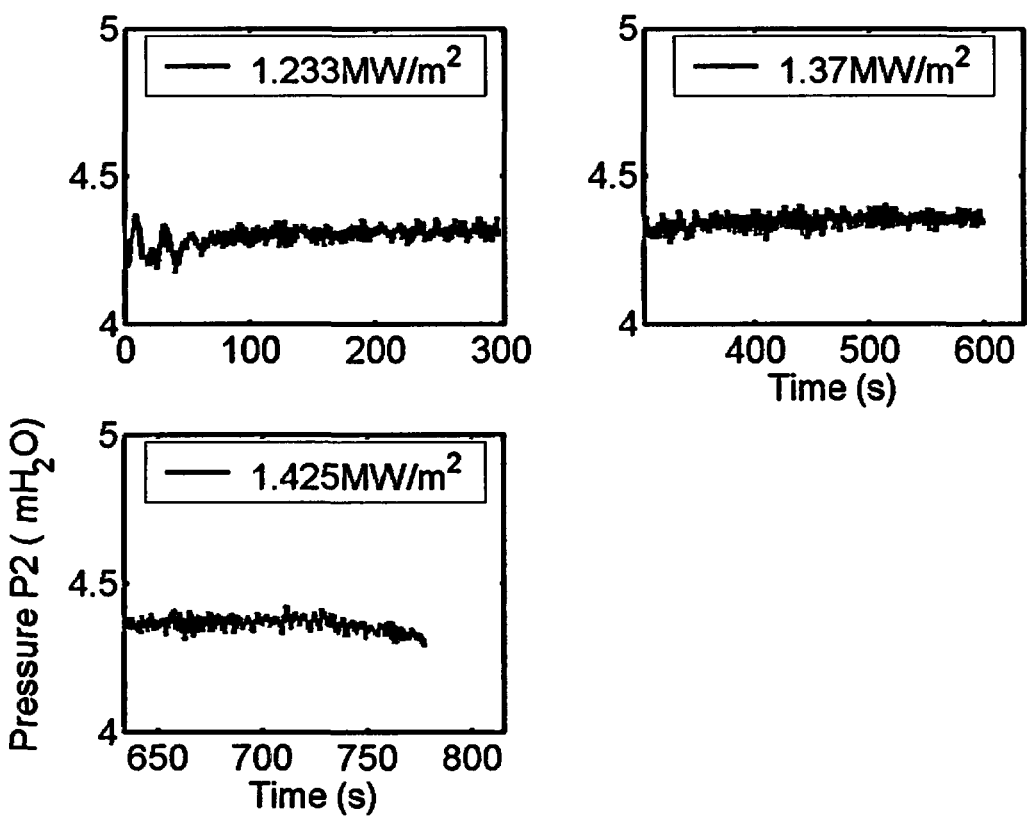

Figure A17.23 Pressure P2 at different heat fluxes.

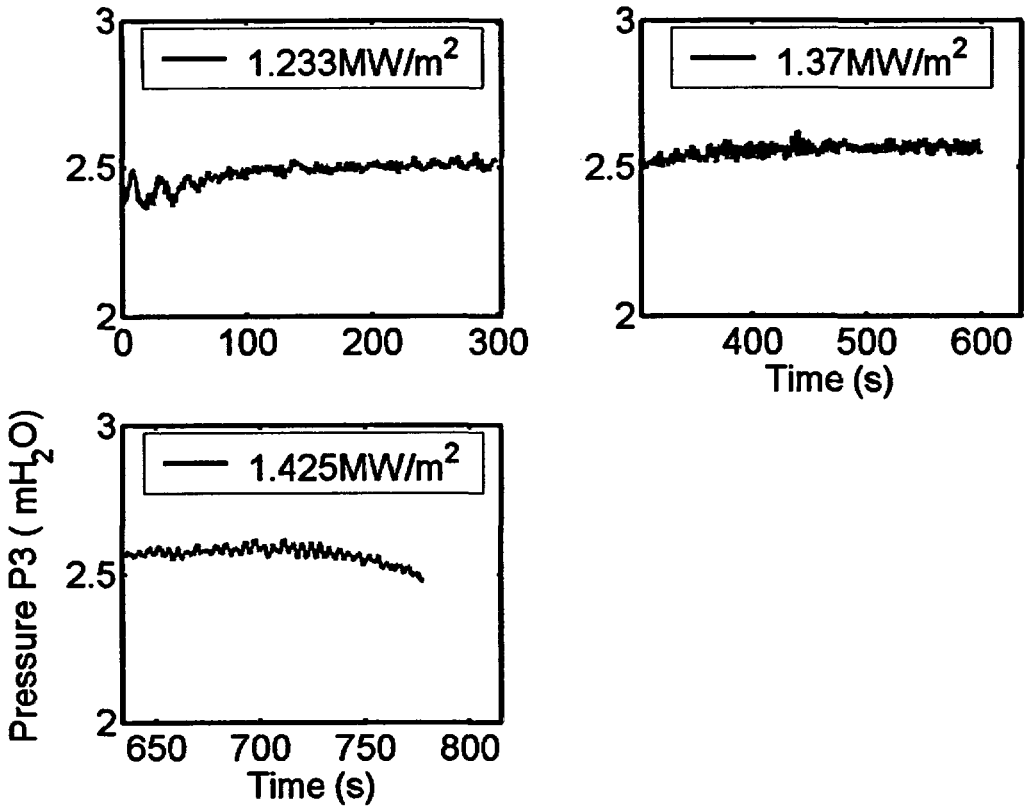

Figure A17.24 Pressure P3 at different heat fluxes.

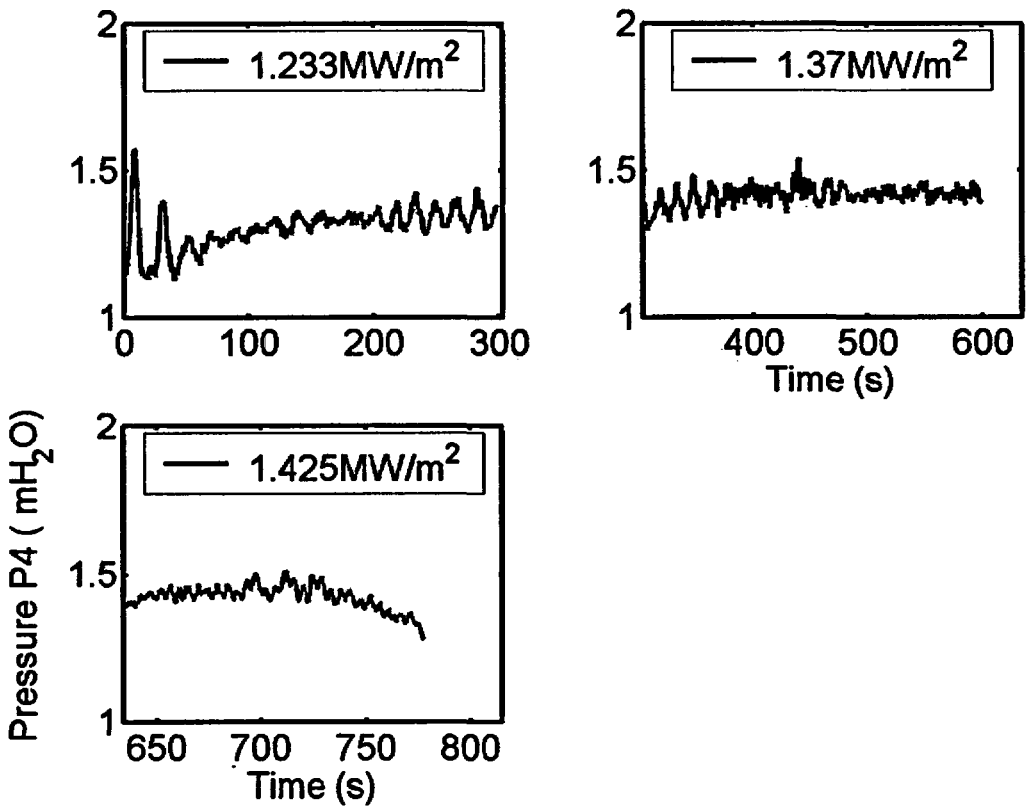

Figure A17.25 Pressure P4 at different heat fluxes.

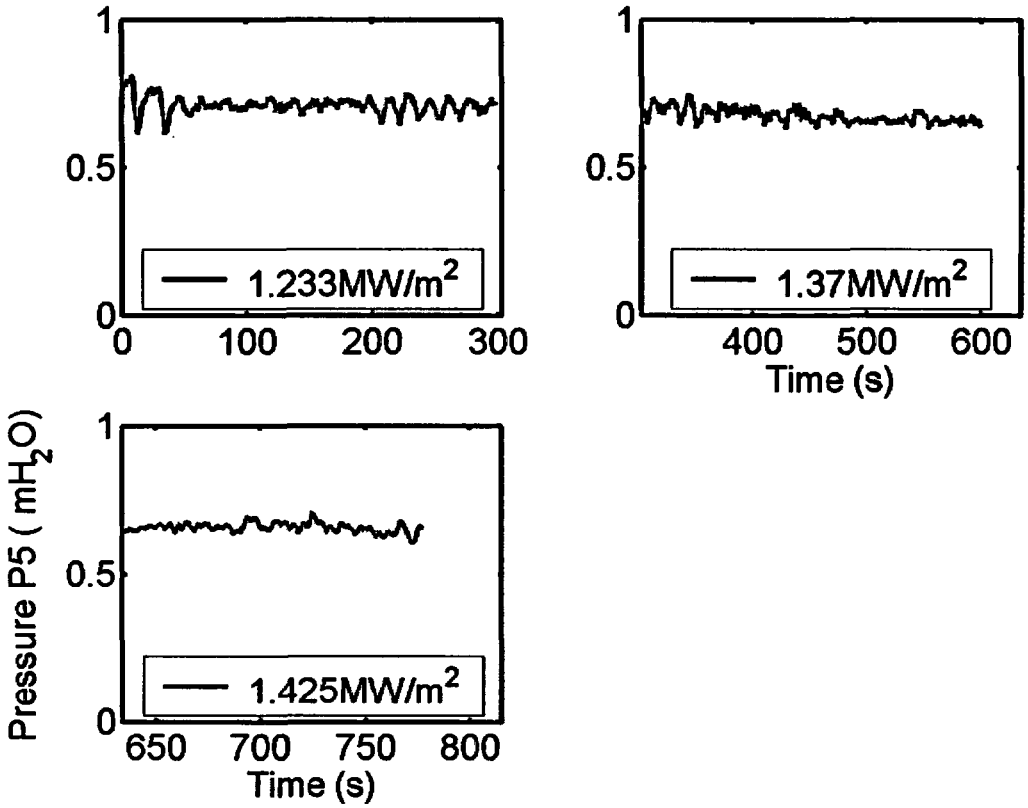

Figure A17.26 Pressure P5 at different heat fluxes.

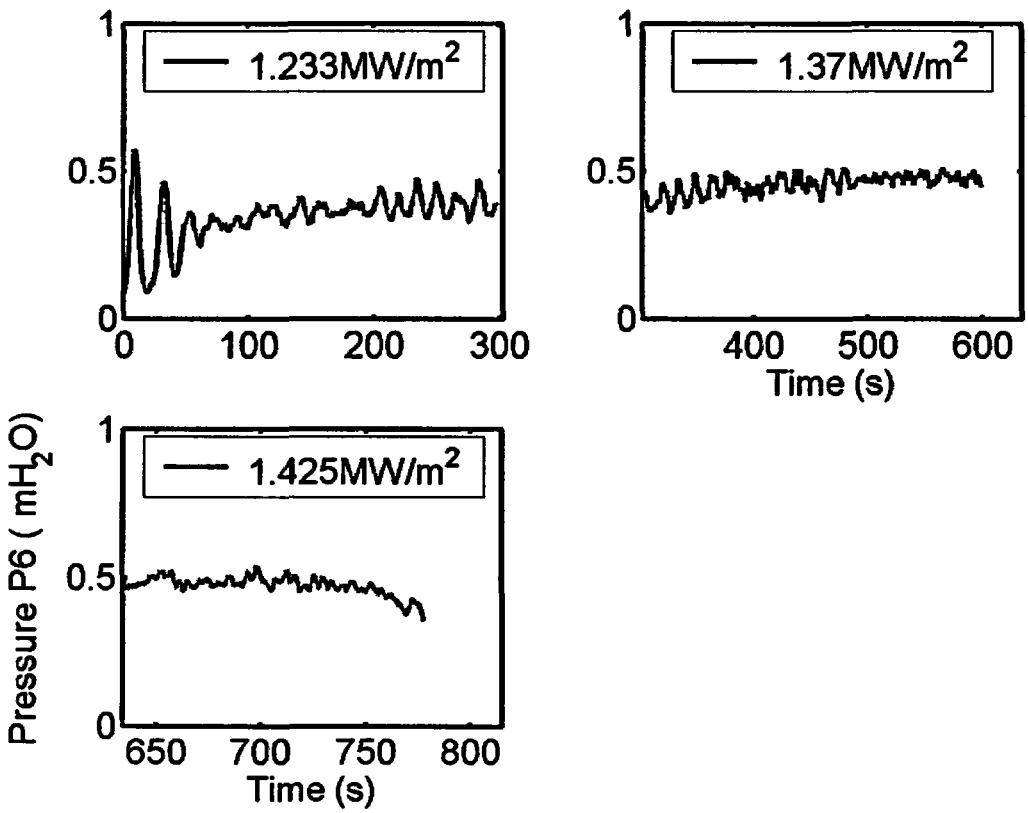

Figure A17.27 Pressure P6 at different heat fluxes.

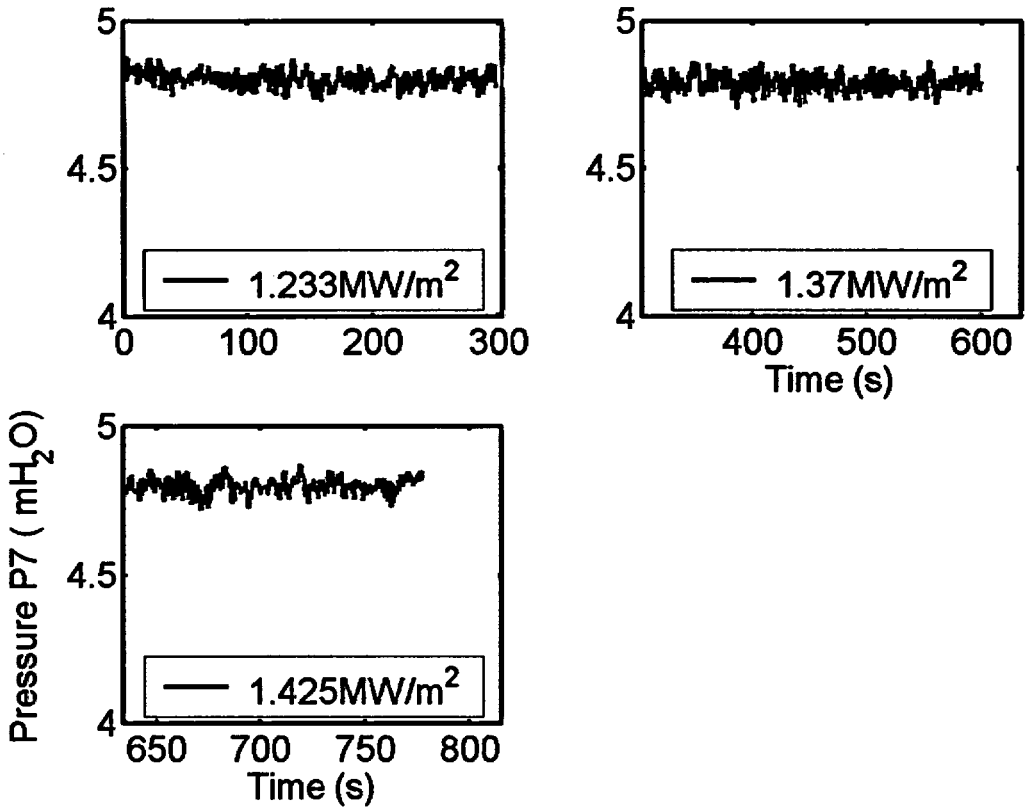

Figure A17.28 Pressure P7 at different heat fluxes.

ID #18

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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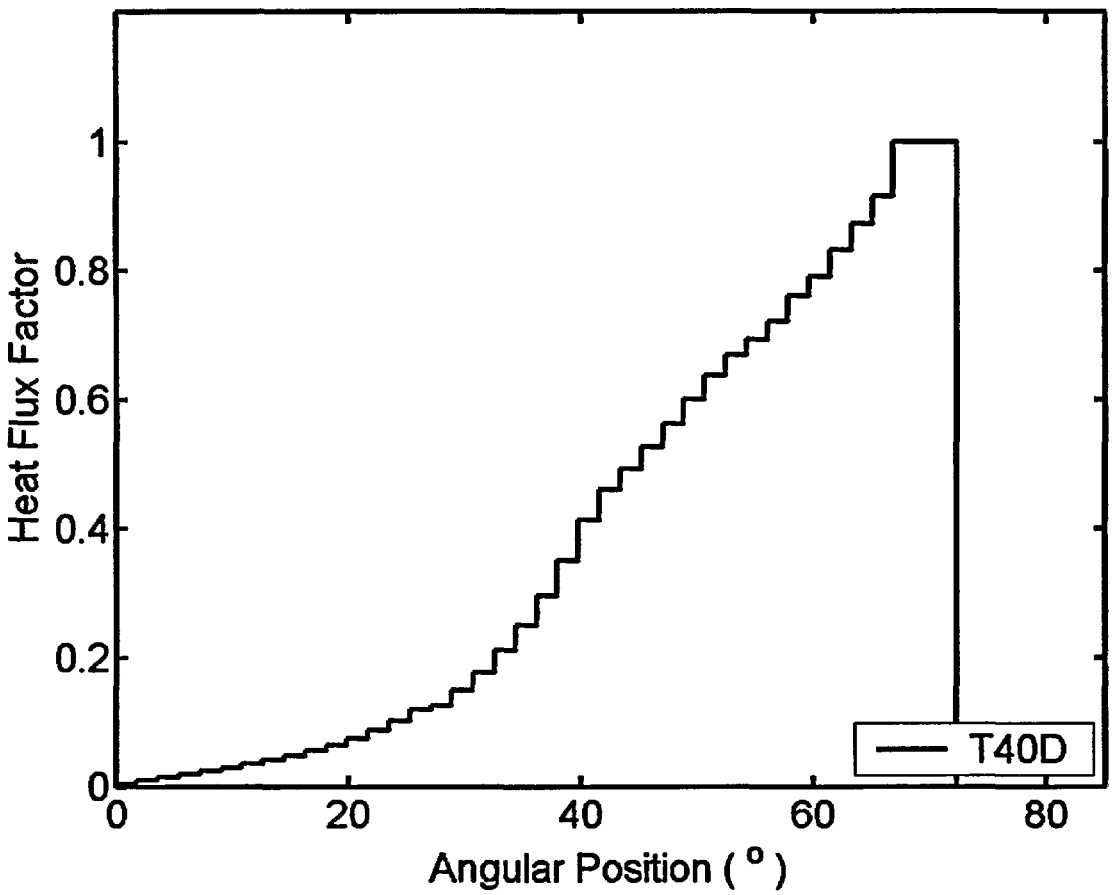

Figure A18.1. Power shape.

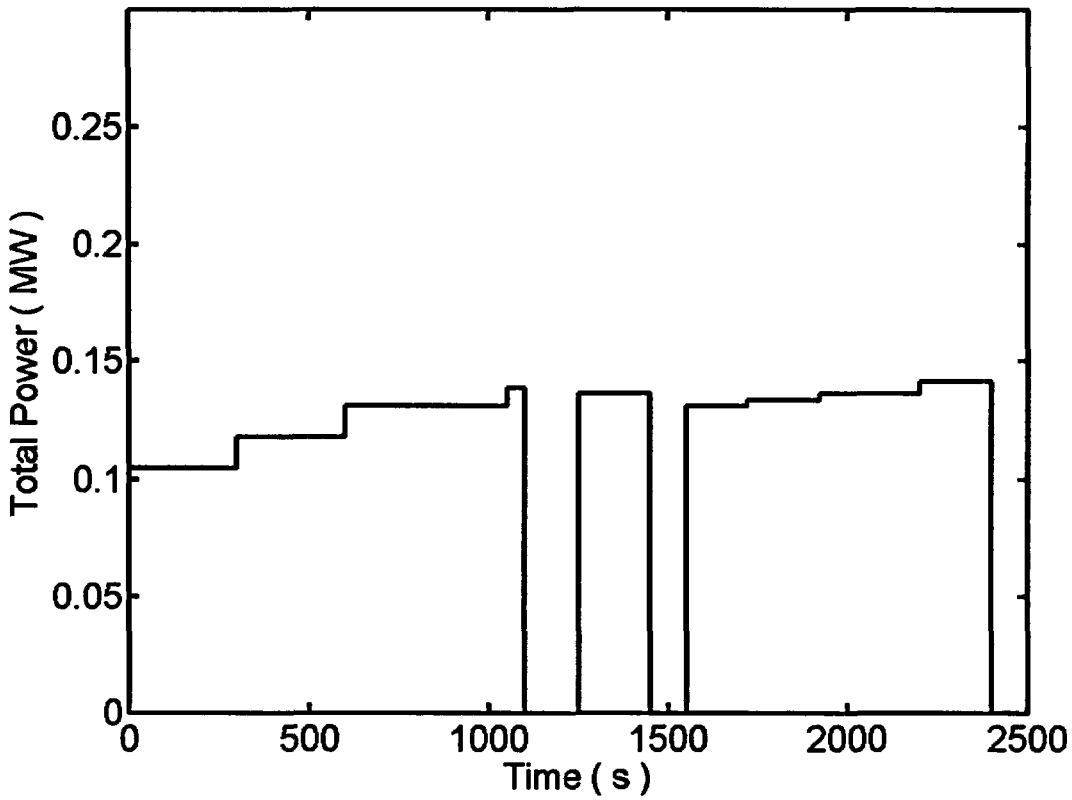

Figure A18.2. Total input power history.

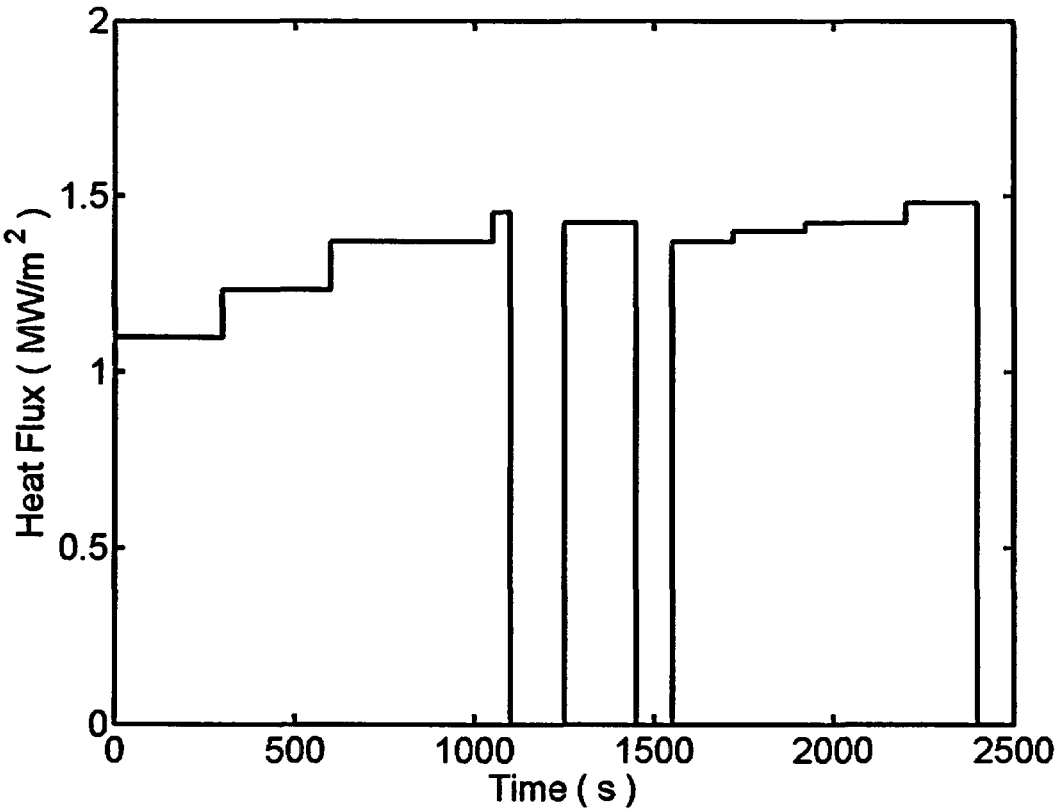

Figure A18.3. Heat flux history.

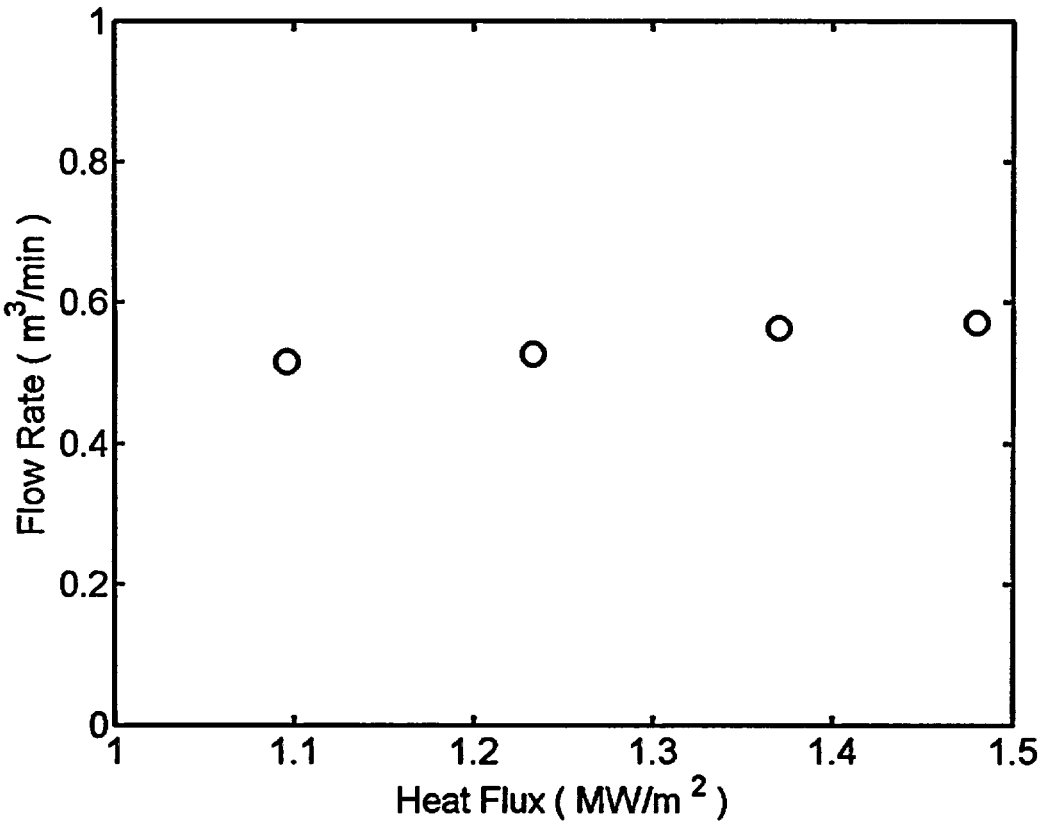

Figure A18.4. Flow rate vs. heat fluxes.

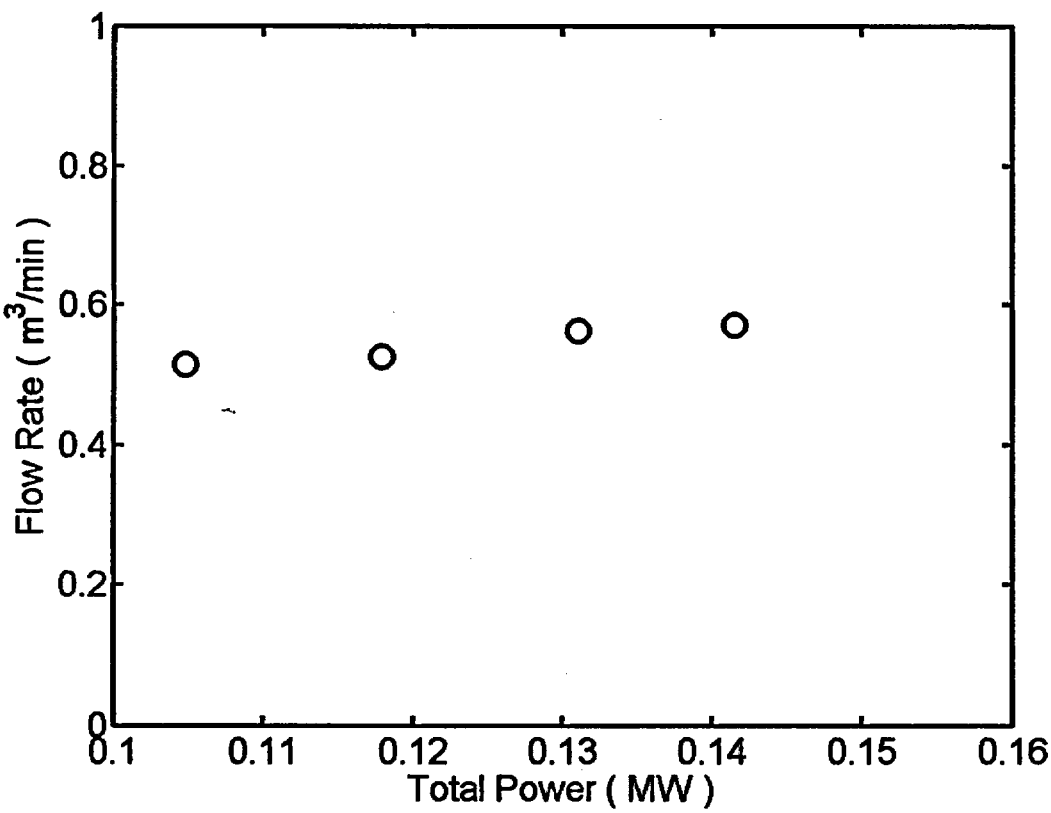

Figure A18.5. Flow rate vs. total input power.

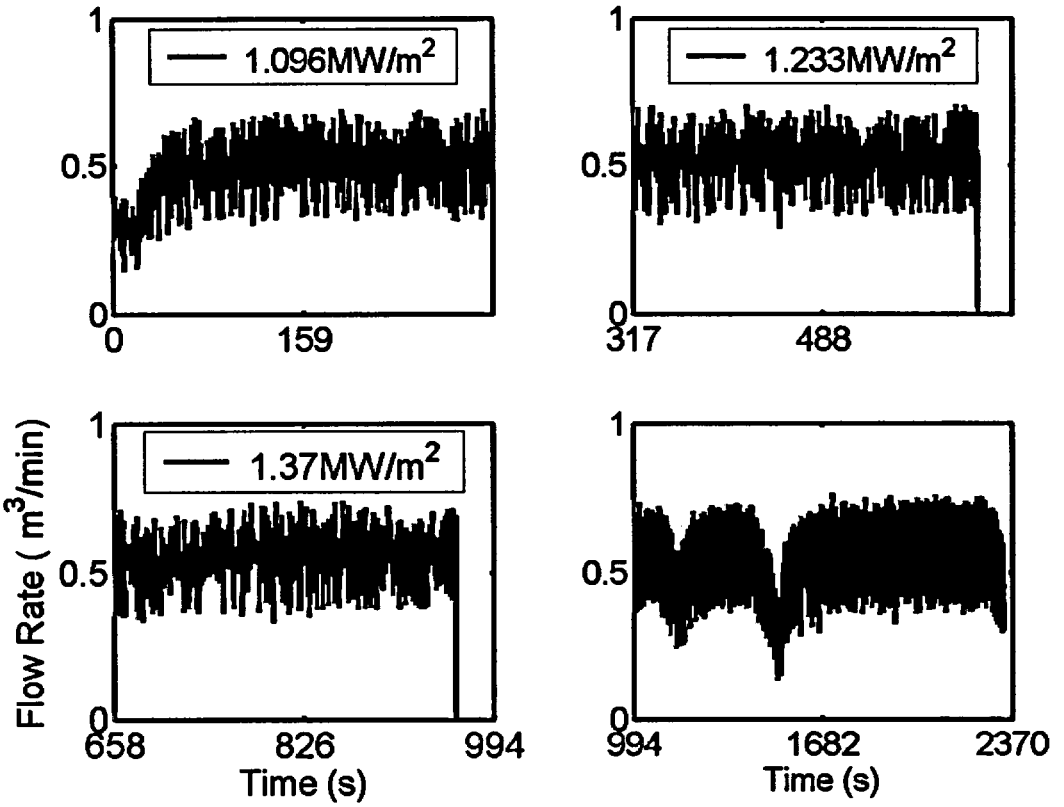

Figure A18.6. Flow rates at different heat fluxes.

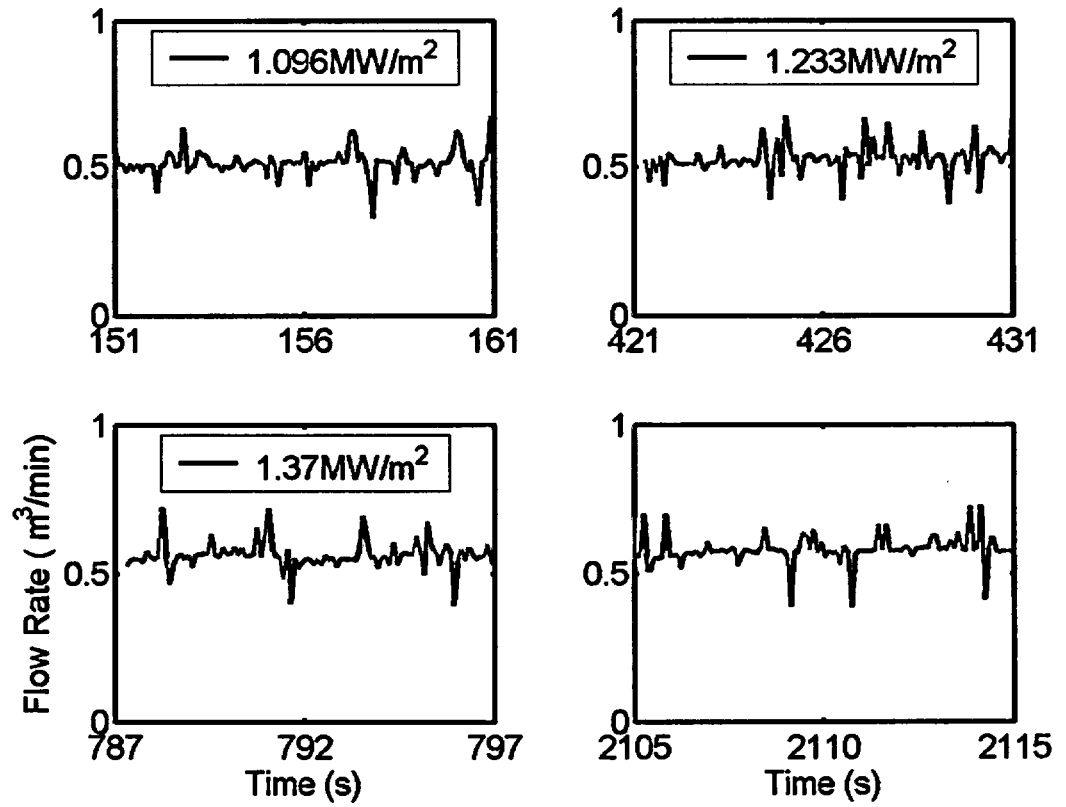

Figure A18.7. Flow rates at different heat fluxes at selected time intervals.

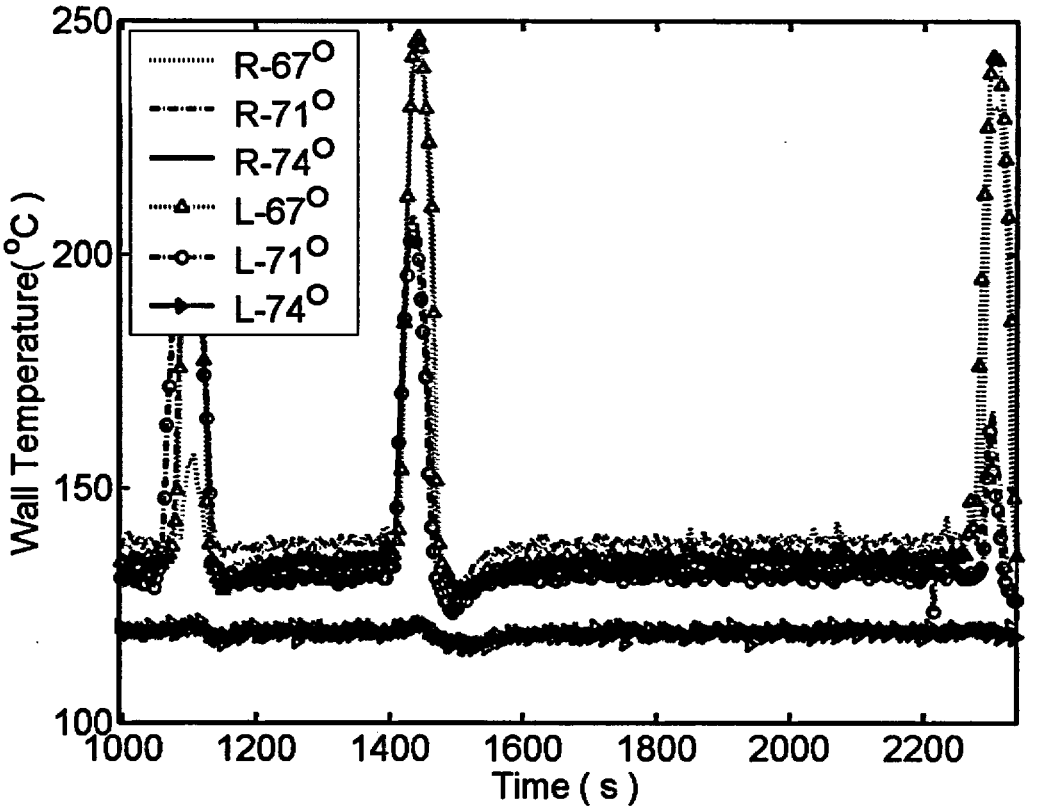

Figure A18.8. Temperature history at CHF.

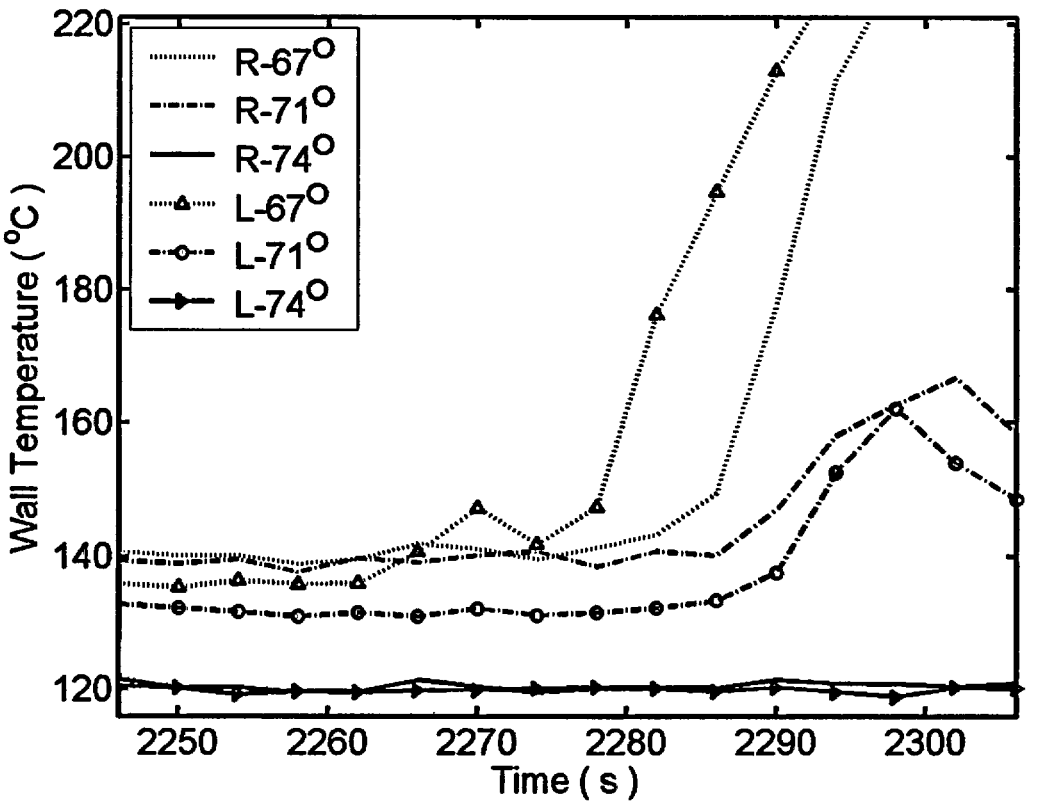

Figure A18.9. Temperature history at CHF in detail.

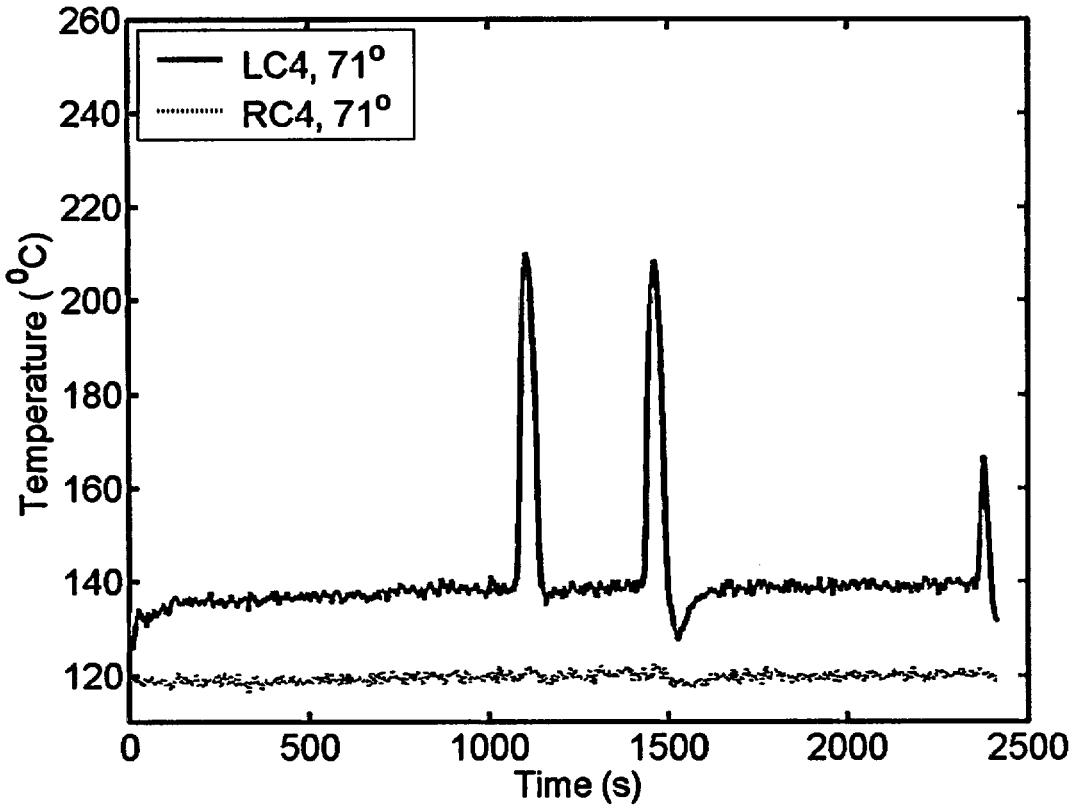

Figure A18.10. Wall temperature history measured by two thermocouples LC4 and RC4.

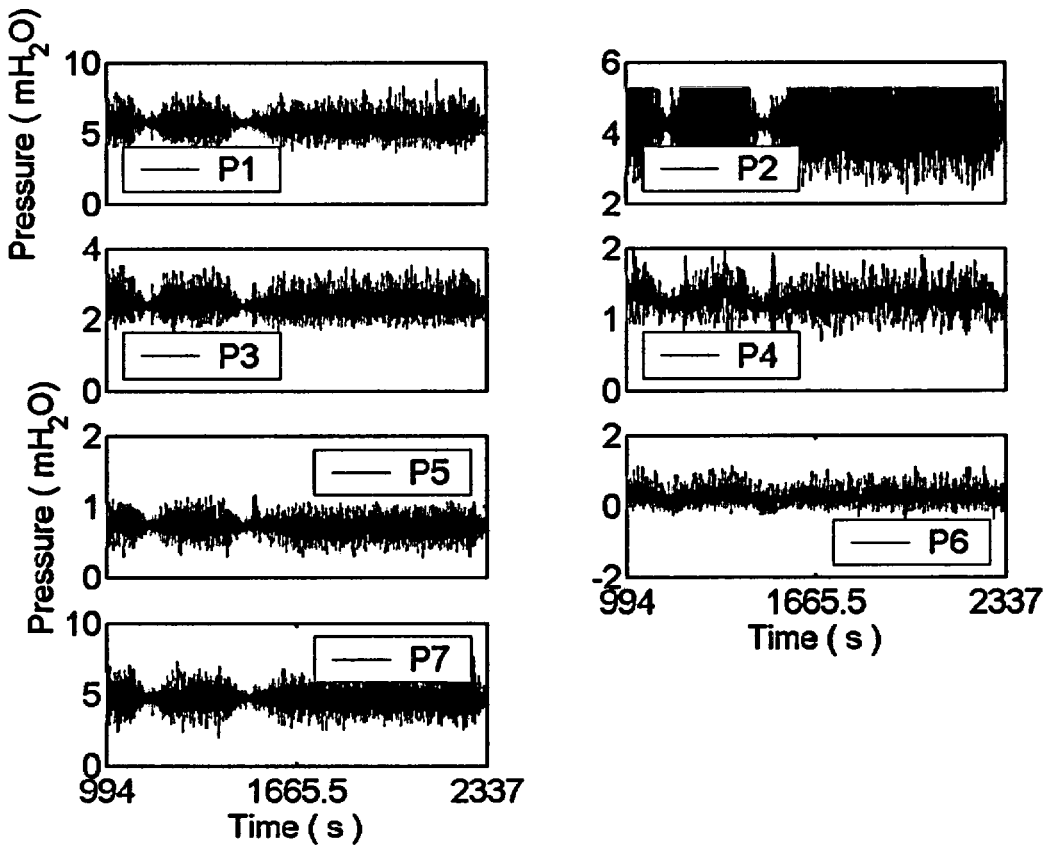

Figure A18.11. Pressure transducer data for time interval 994 to 2337 s.

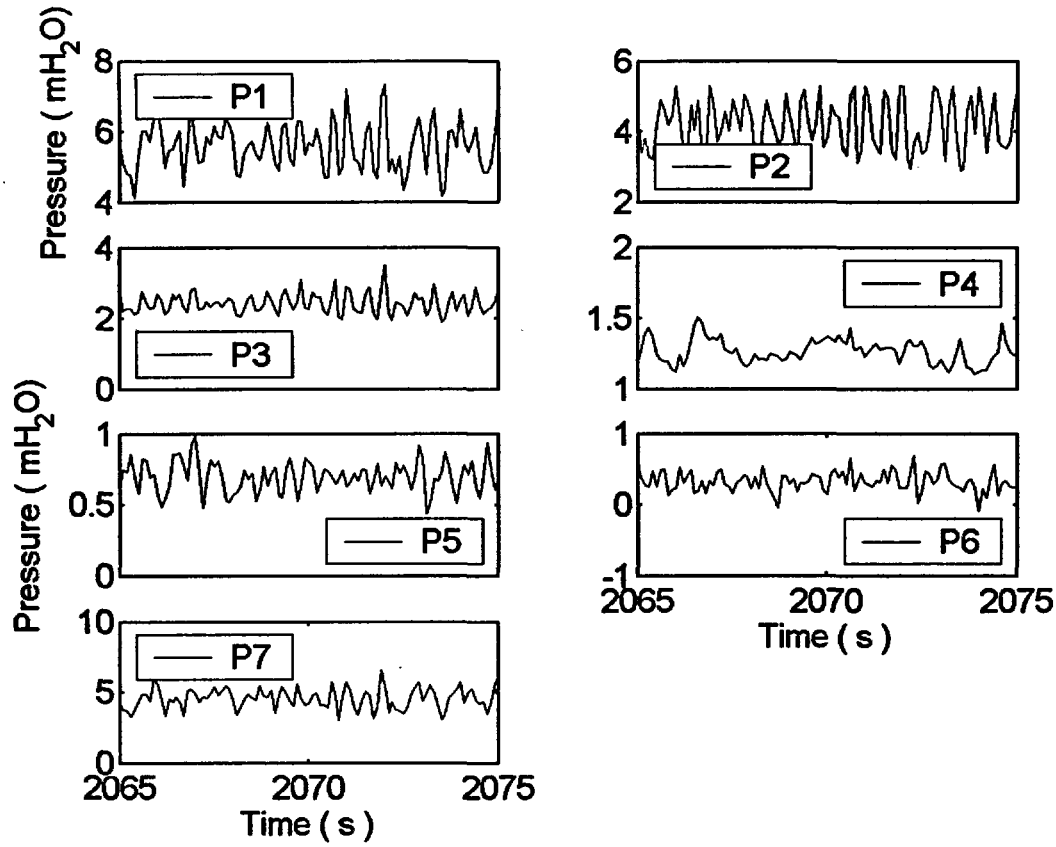

Figure A18.12. Pressure data in detail at q = 1.370 MW/m^2.

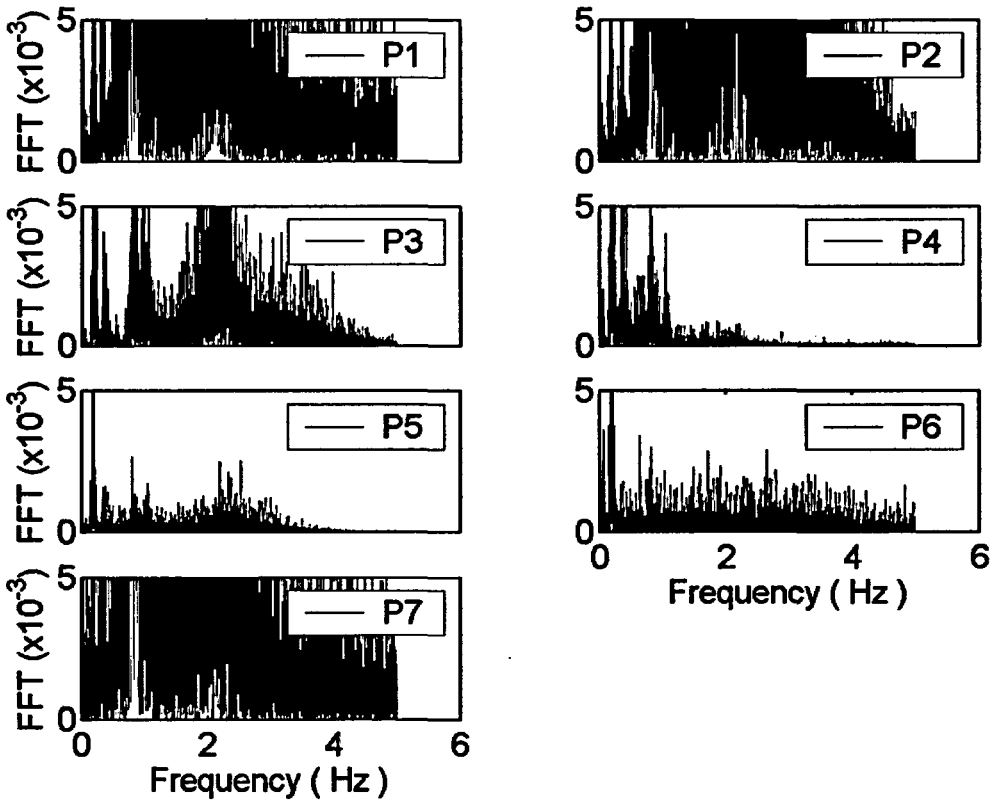

Figure A18.13. FFT of pressure time series for time interval 994 to 2337 s.

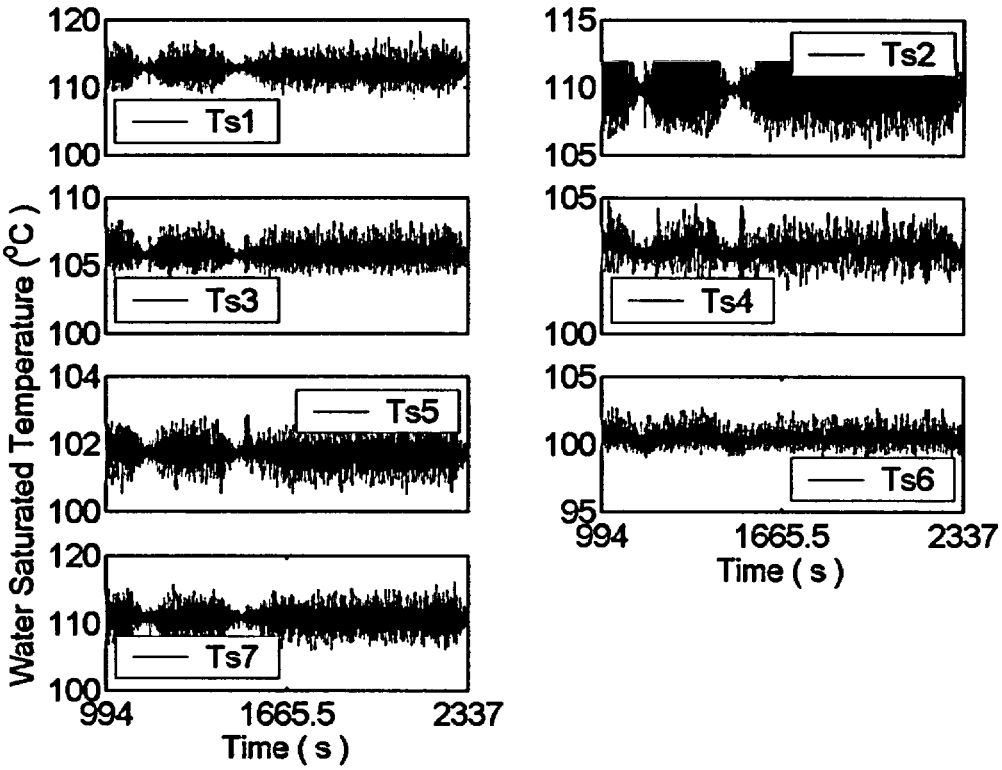

Figure A18.14. Water saturation temperature calculated from local pressure data for time interval 994 to 2337 s.

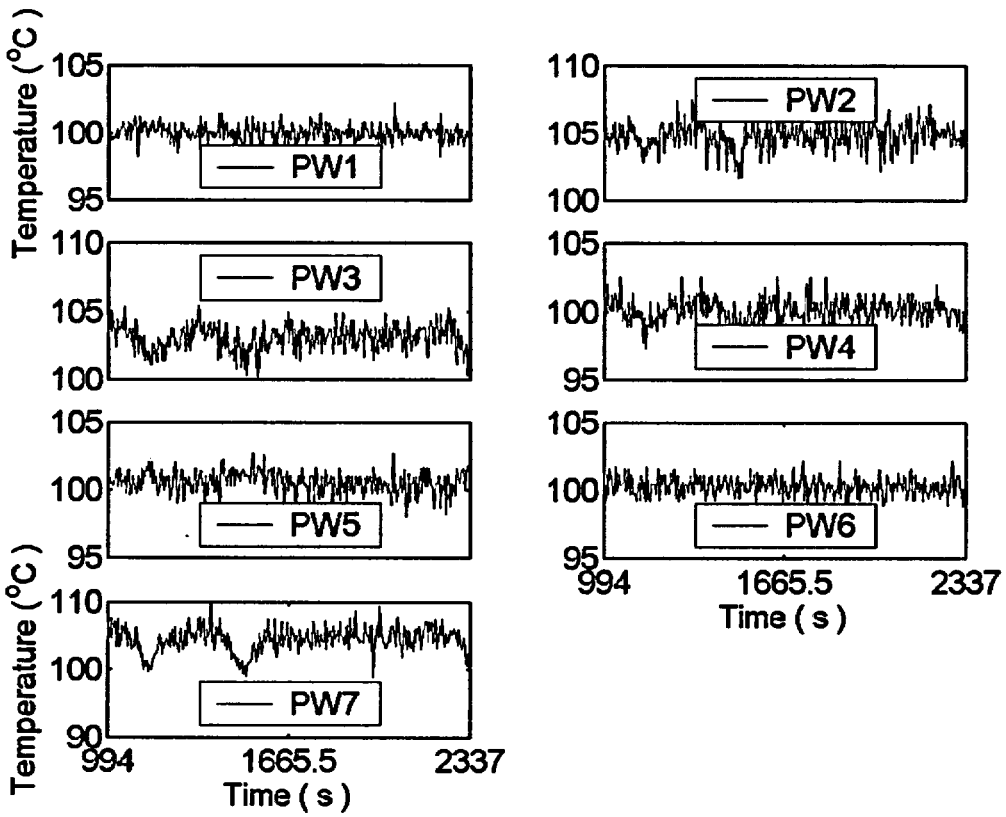

Figure A18.15. Water temperature measured at location of pressure transducer for time interval 994 to 2337 s.

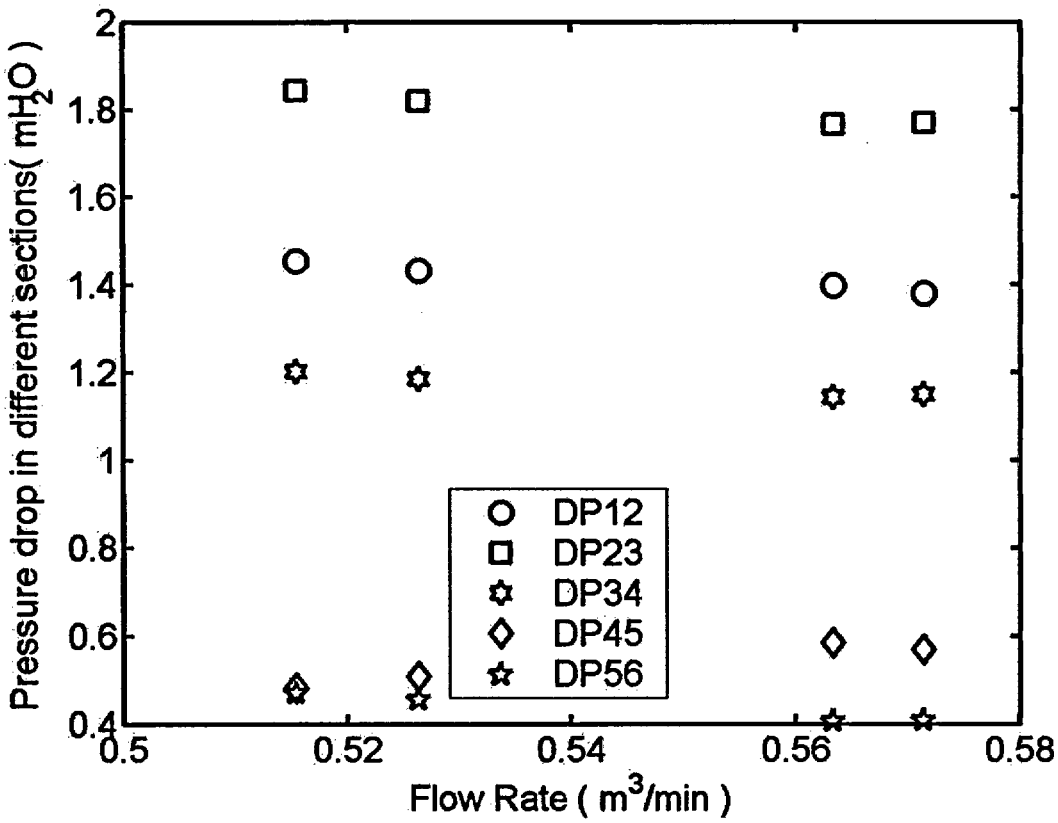

Figure A18.16. Pressure drop vs. flow rate at different heat fluxes.

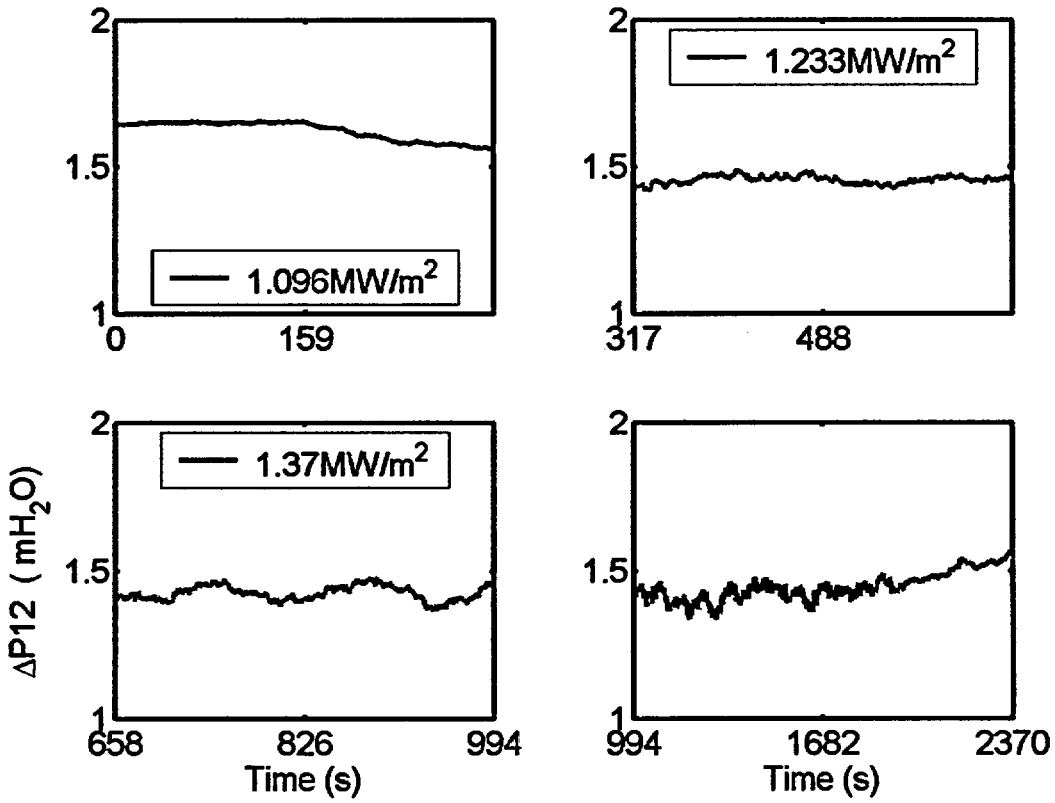

Figure A18.17. Differential Pressure ΔP12 at different heat fluxes.

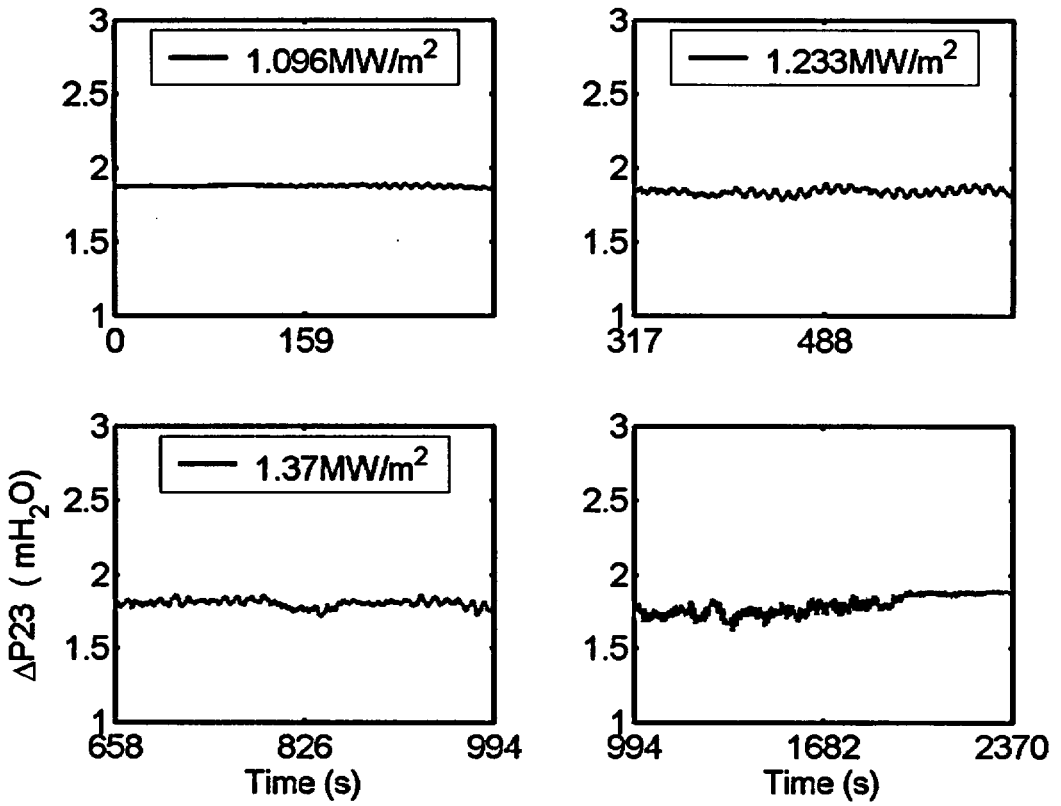

Figure A18.18. Differential Pressure ΔP23 at different heat fluxes.

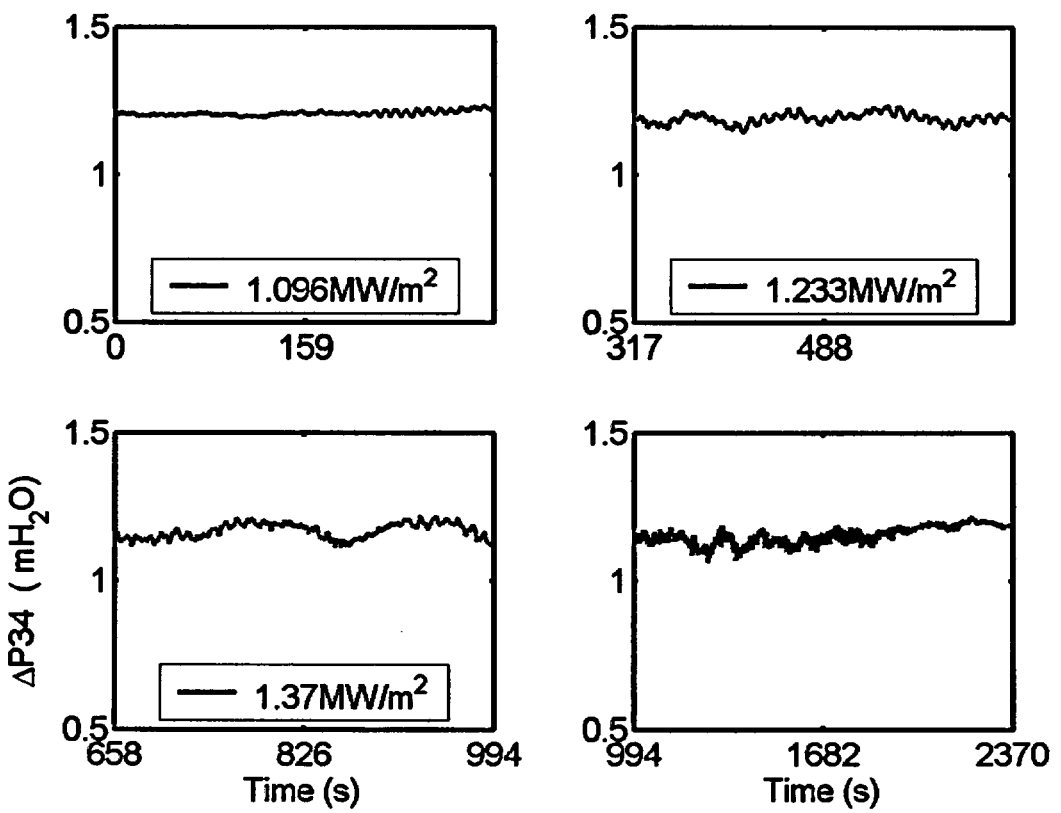

Figure A18.19. Differential Pressure ΔP34 at different heat fluxes.

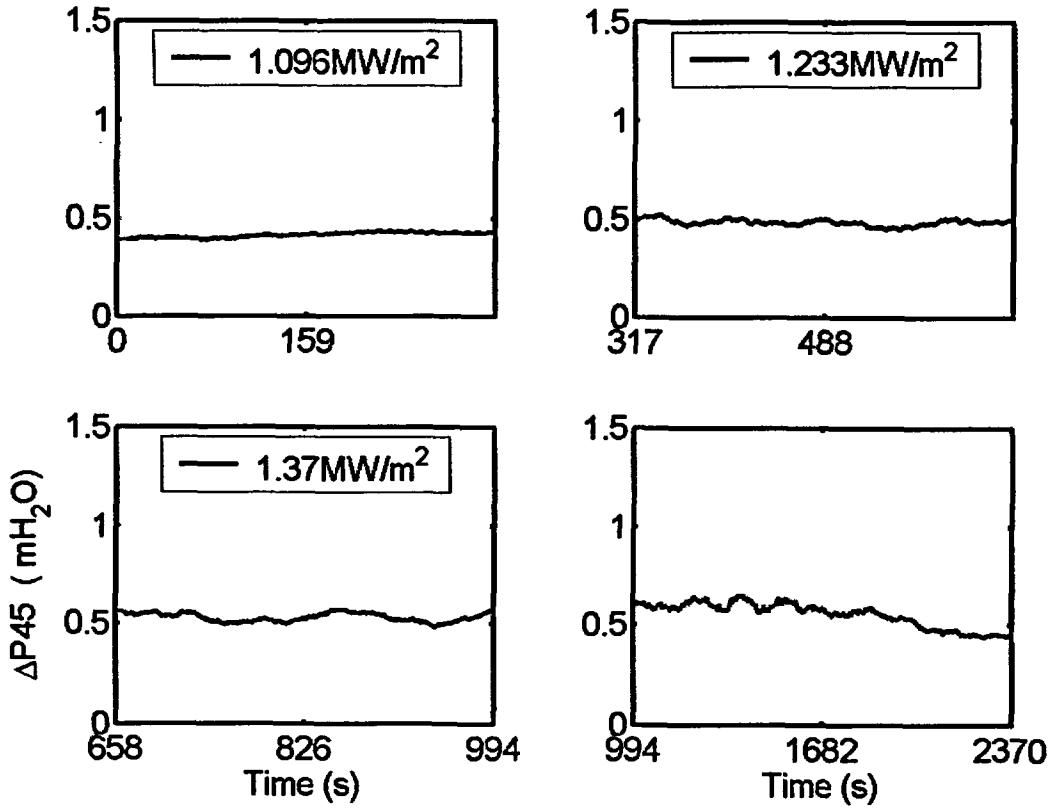

Figure A18.20. Differential Pressure ΔP45 at different heat fluxes.

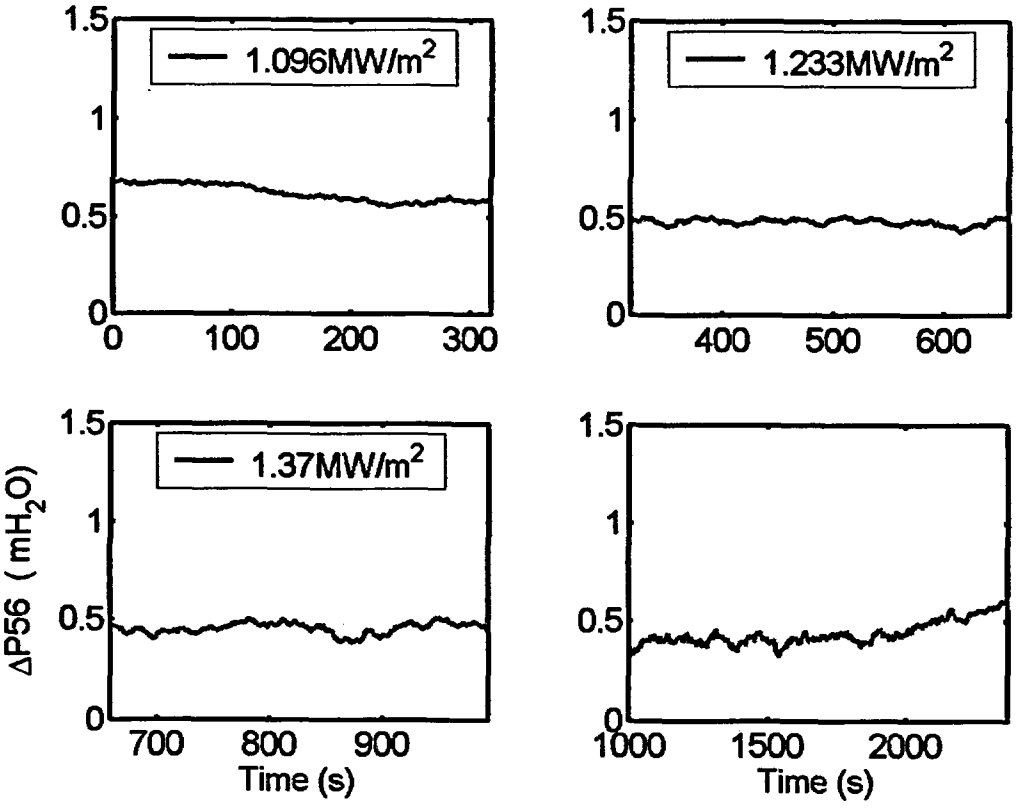

Figure A18.21. Differential Pressure ΔP56 at different heat fluxes.

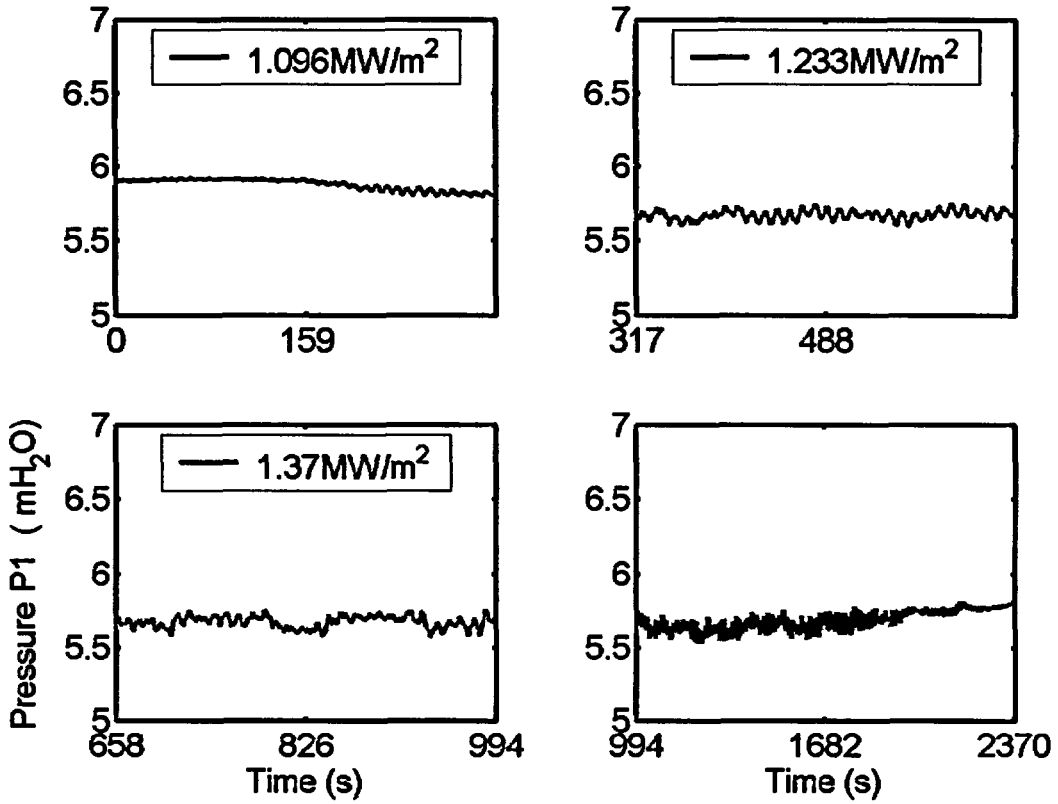

Figure A18.22. Pressure P1 at different heat fluxes.

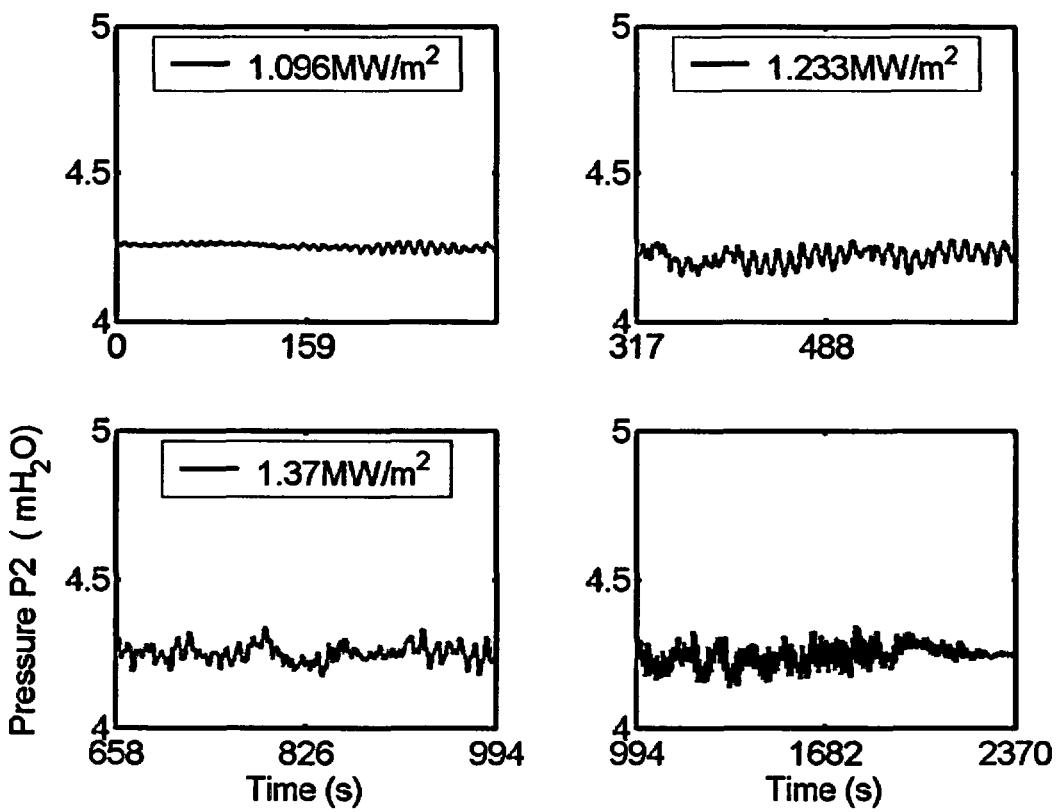

Figure A18.23. Pressure P2 at different heat fluxes.

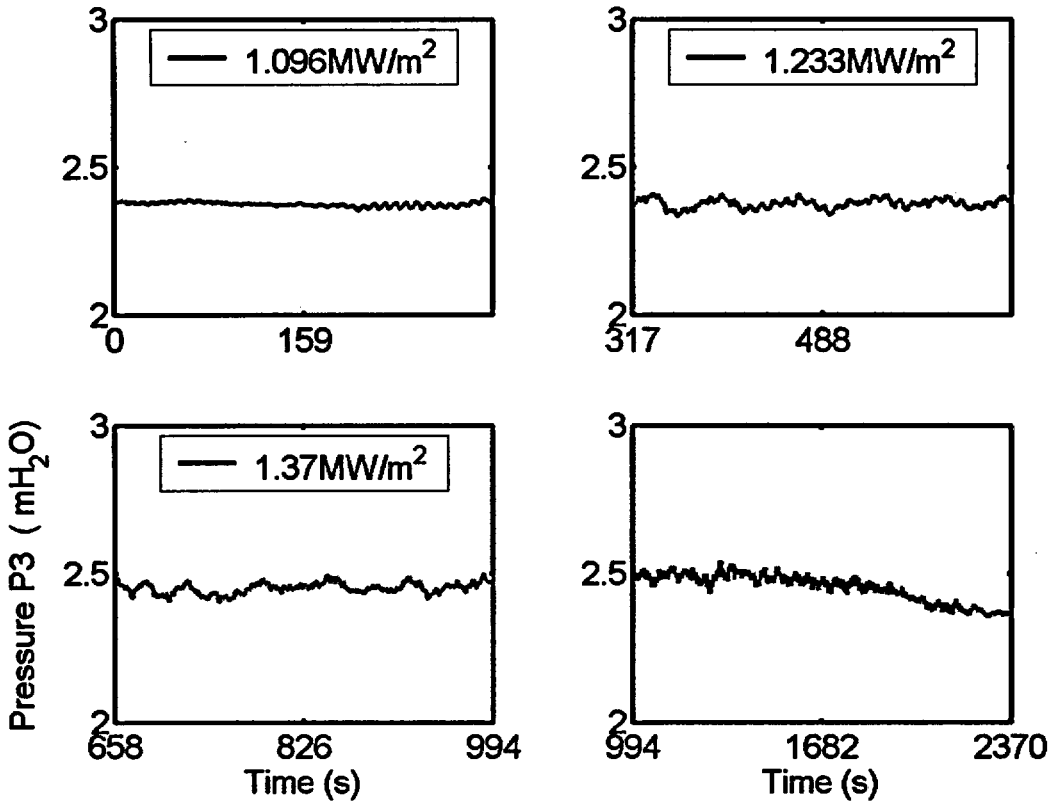

Figure A18.24. Pressure P3 at different heat fluxes.

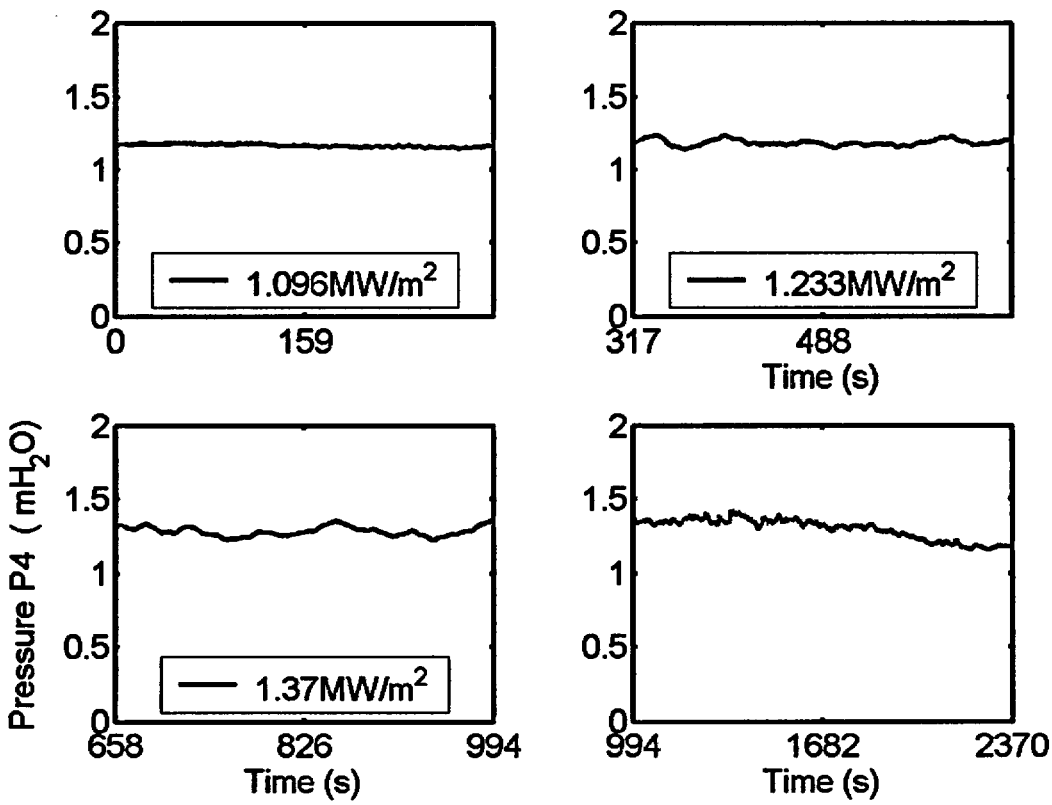

Figure A18.25. Pressure P4 at different heat fluxes.

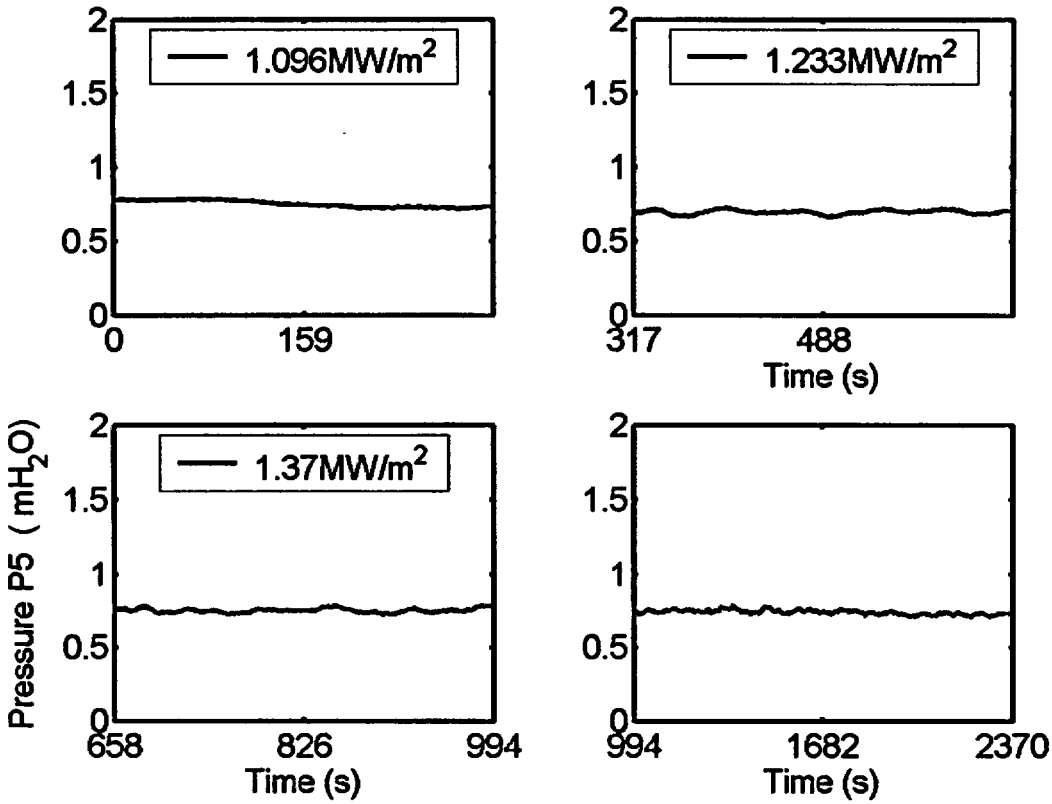

Figure A18.26. Pressure P5 at different heat fluxes.

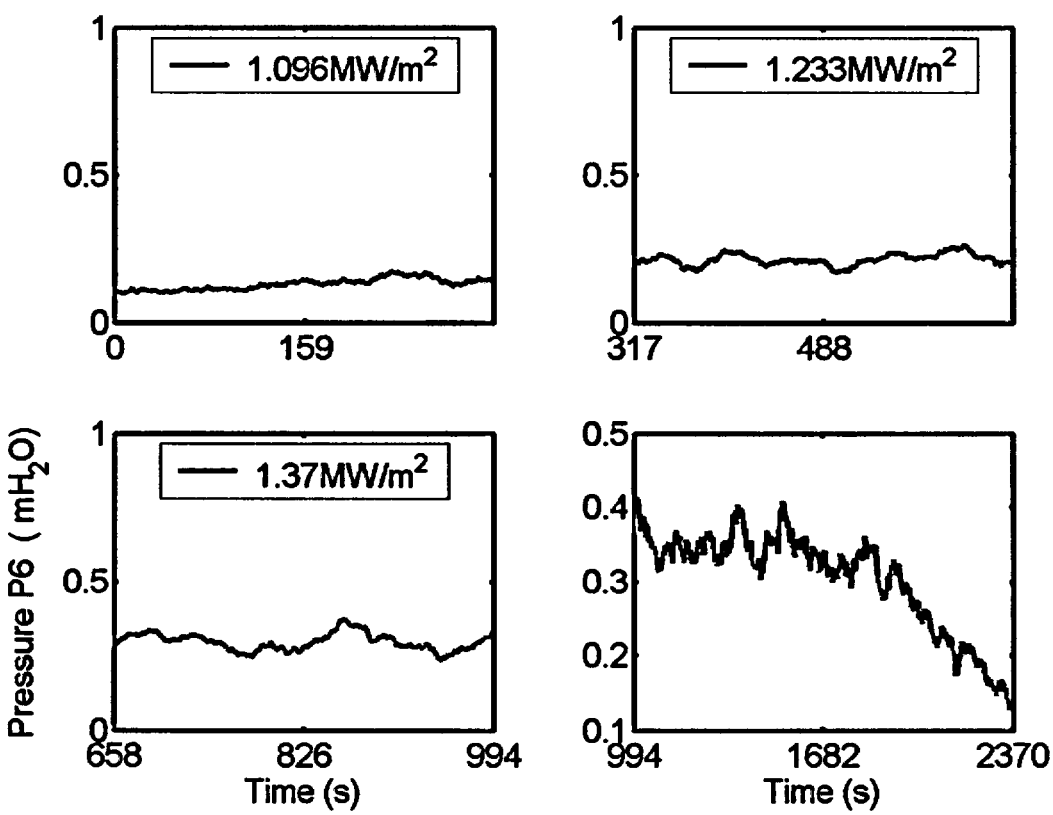

Figure A18.27. Pressure P6 at different heat fluxes.

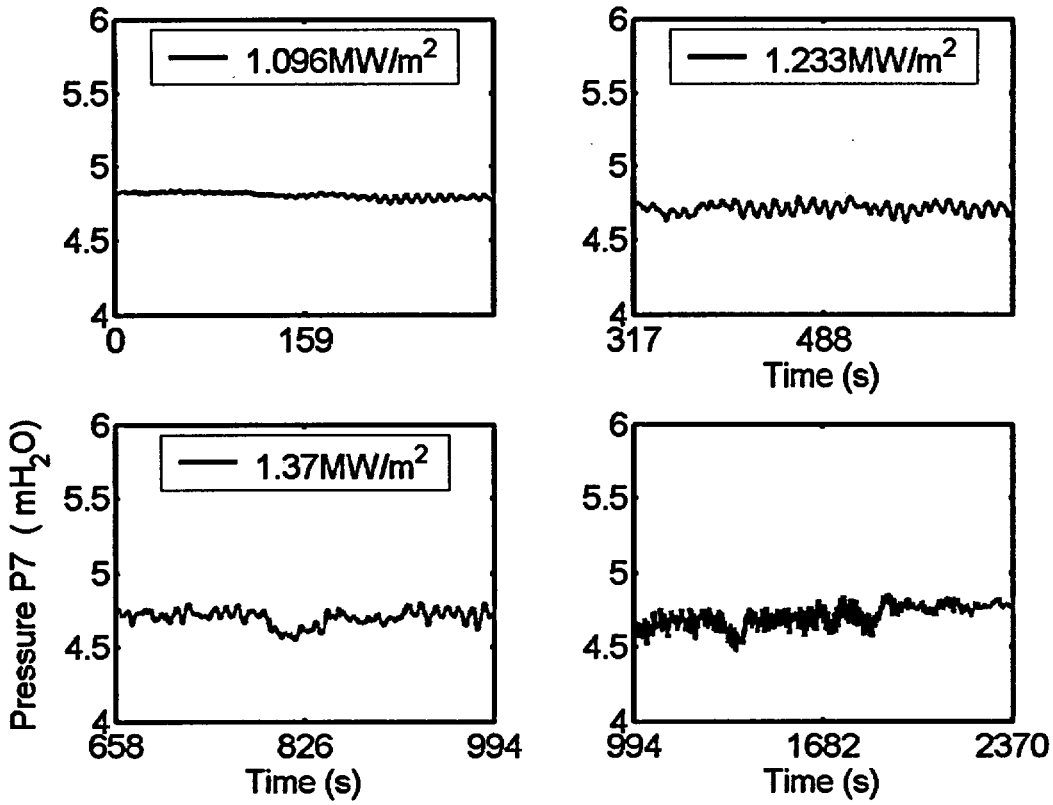

Figure A18.28. Pressure P7 at different heat fluxes.

ID #19

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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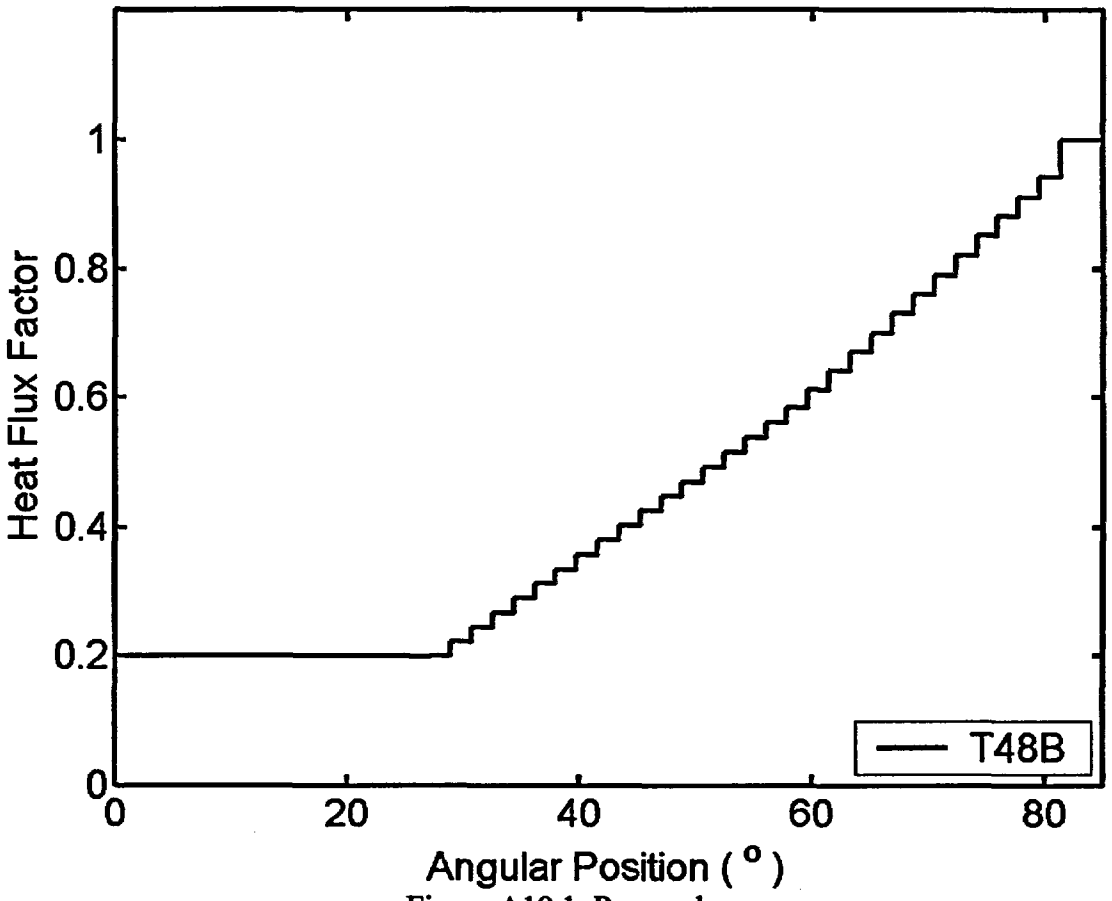

Figure A19.1. Power shape.

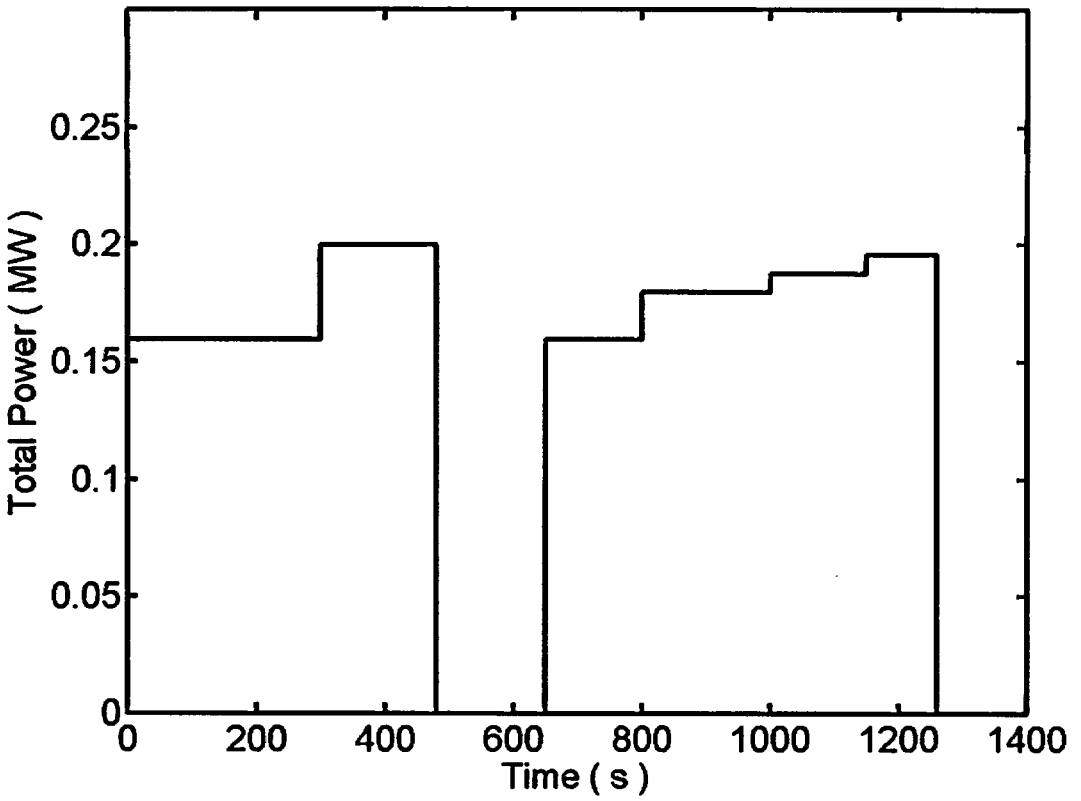

Figure A19.2. Total input power history.

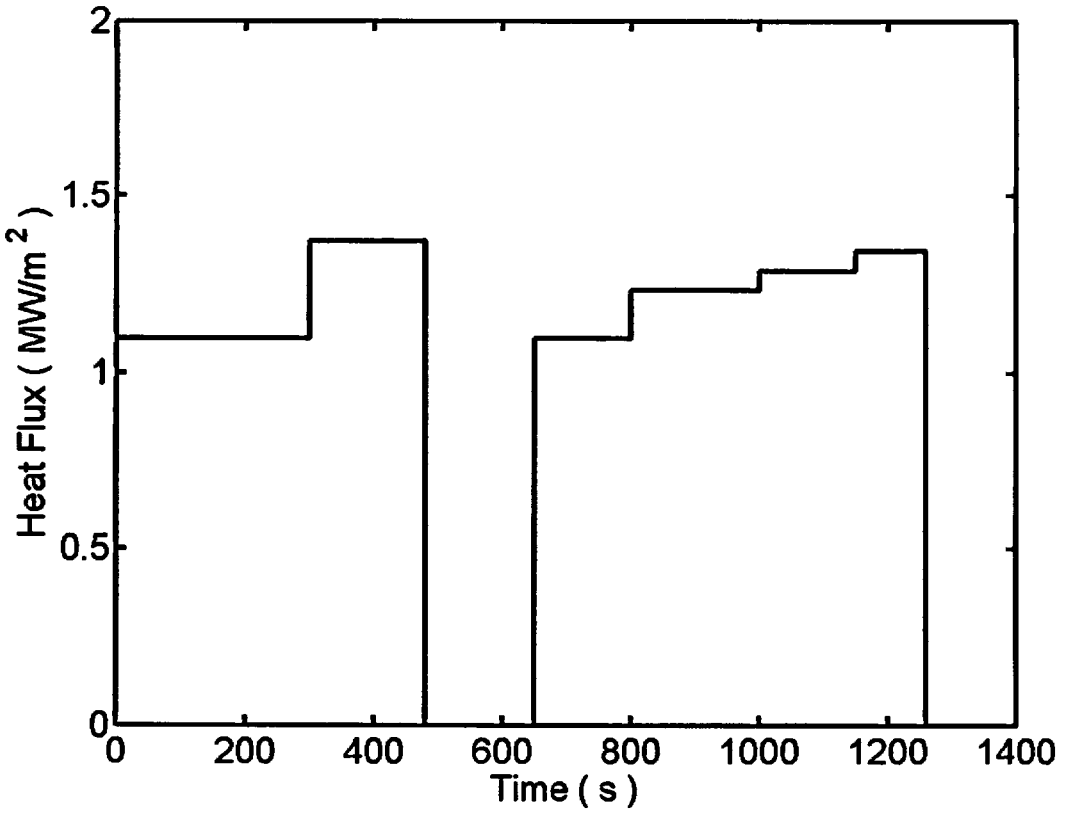

Figure A19.3. Heat flux history.

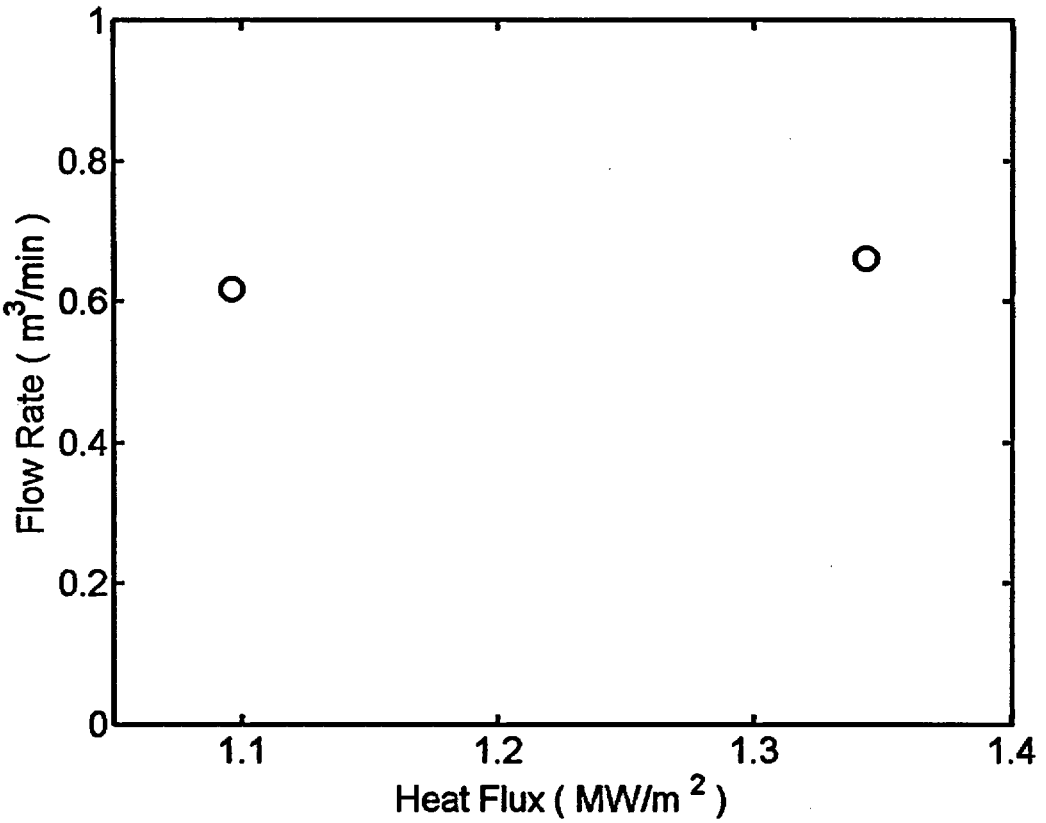

Figure A19.4. Flow rate vs. heat fluxes.

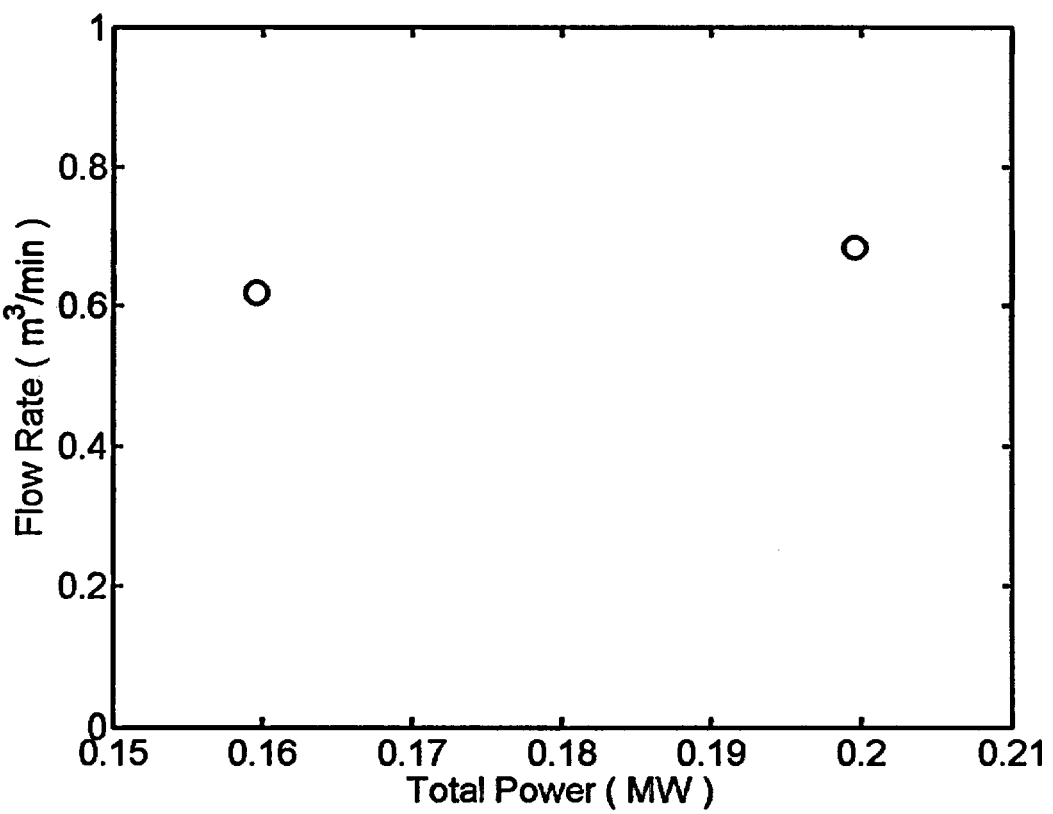

Figure A19.5. Flow rate vs. total input power.

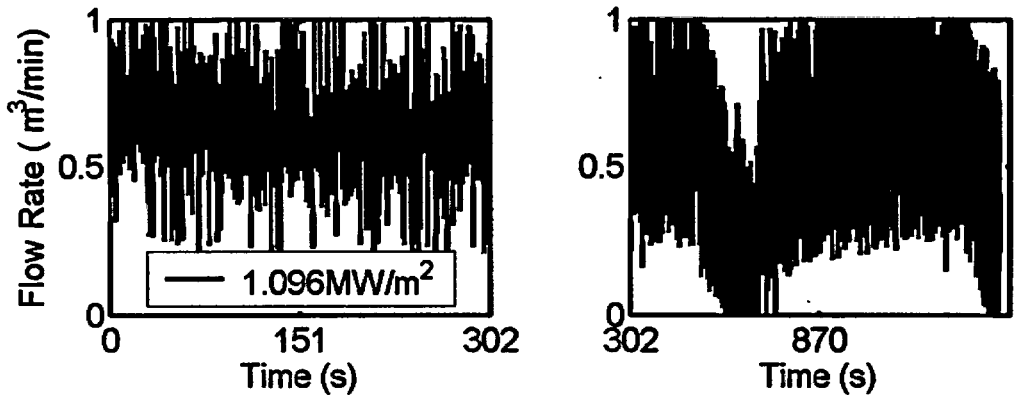

Figure A19.6. Flow rates at different heat fluxes.

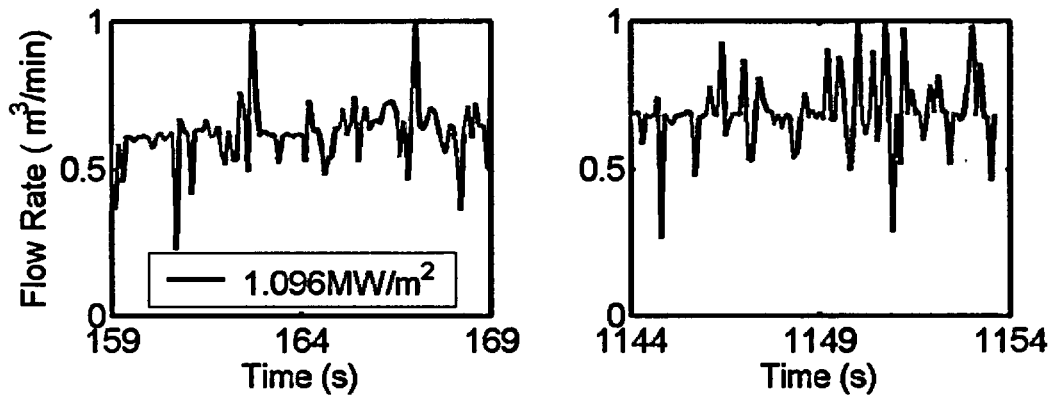

Figure A19.7. Flow rates at different heat fluxes at selected time intervals.

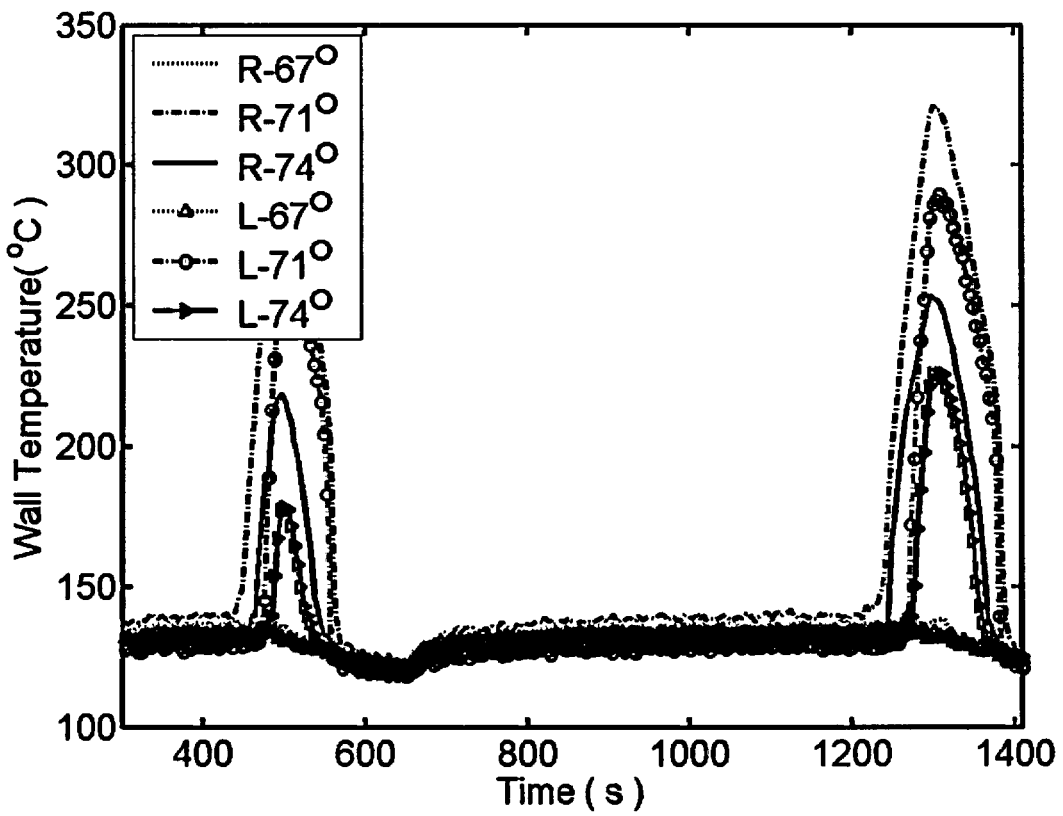

Figure A19.8. Temperature history at CHF.

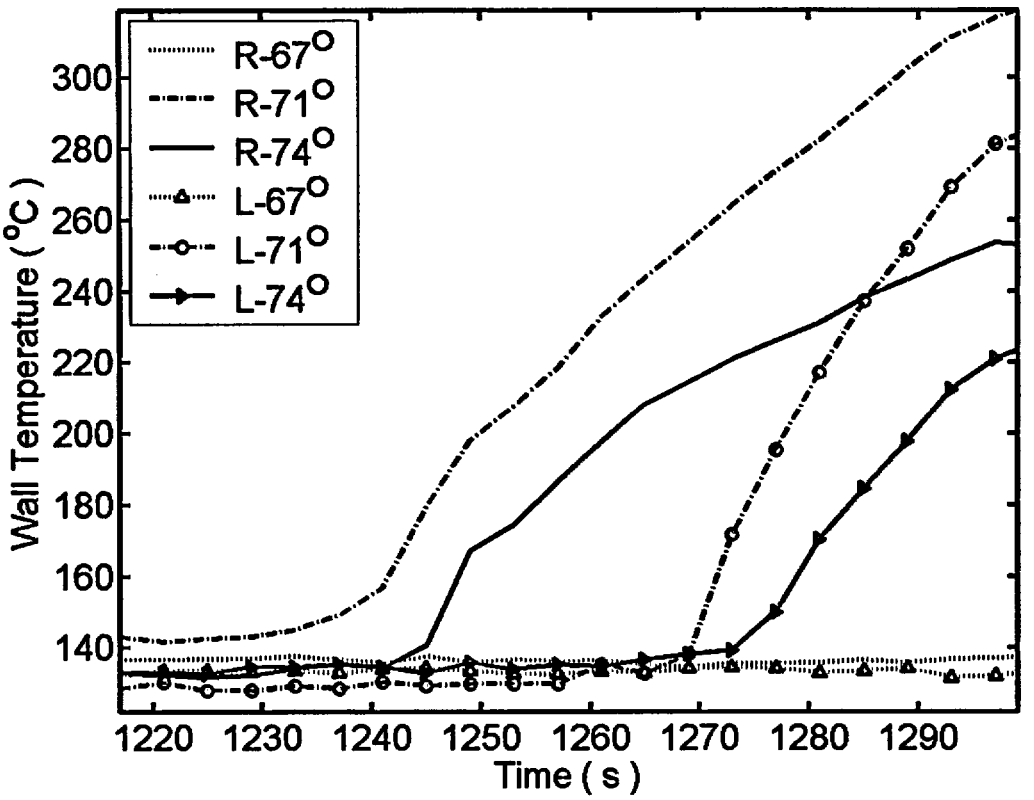

Figure A19.9. Temperature history at CHF in detail.

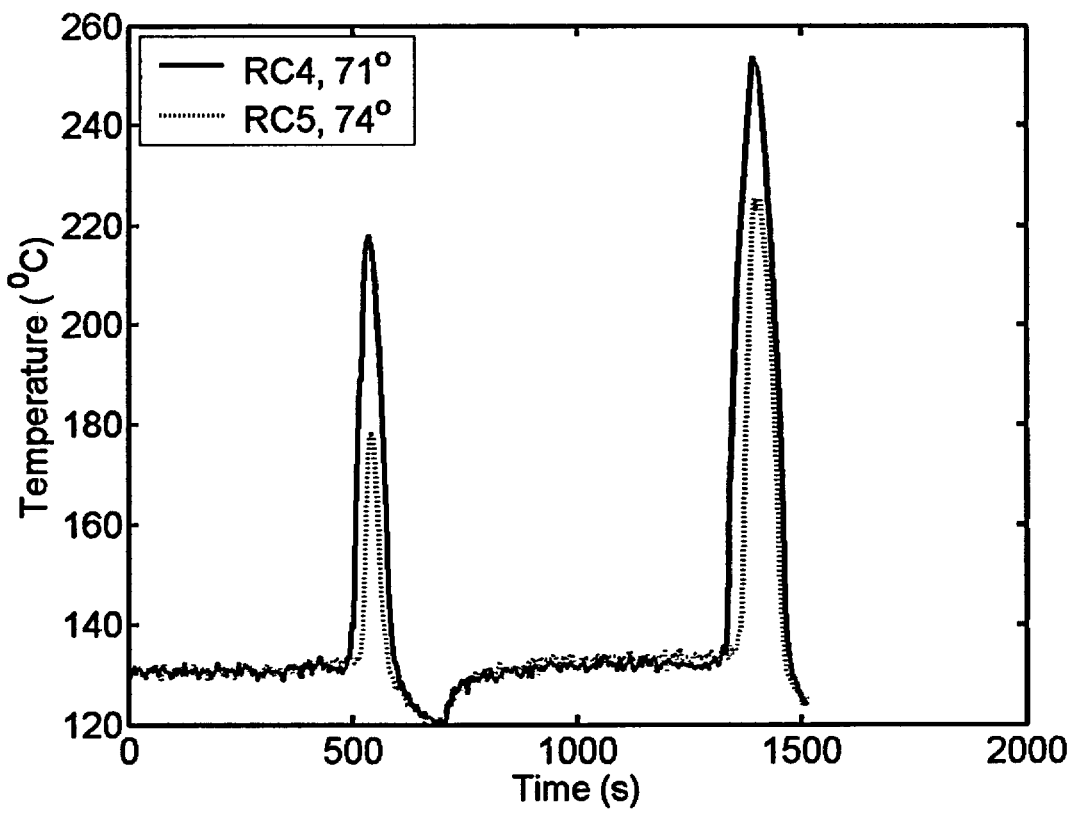

Figure A19.10. Wall temperature history measured by two thermocouples RC4 and RC5.

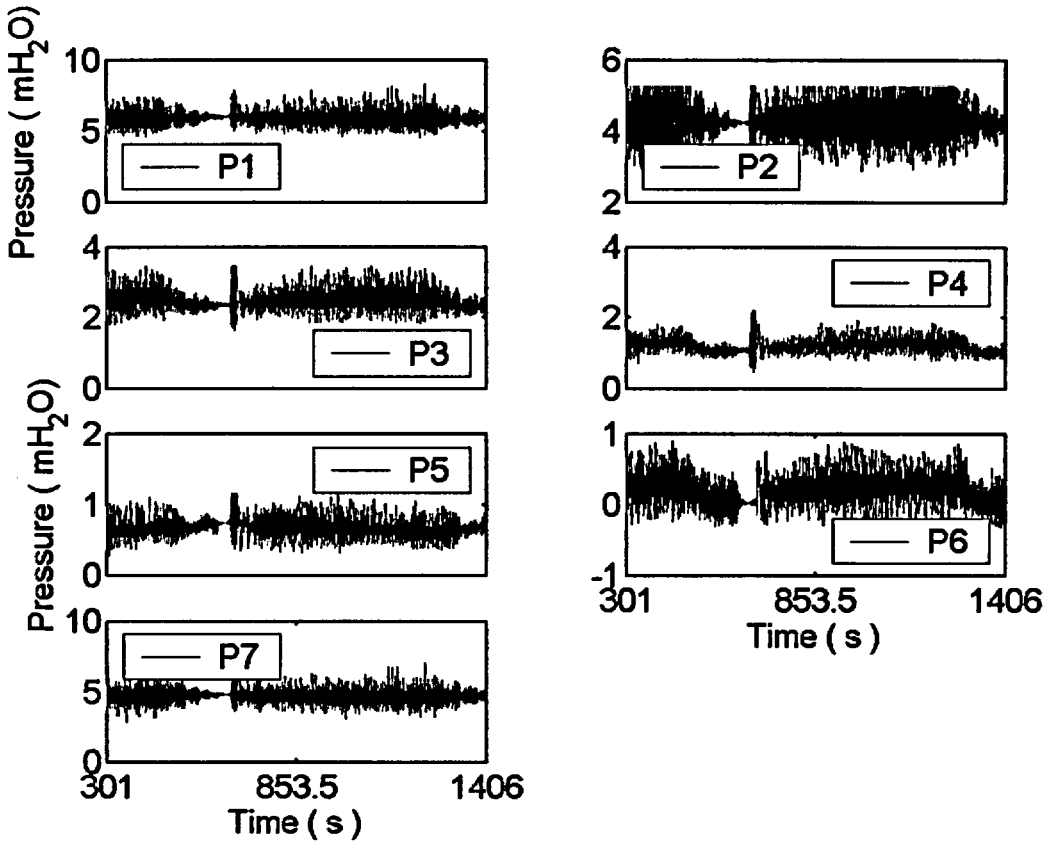

Figure A19.11. Pressure transducer data for time interval 301 to 1406 s.

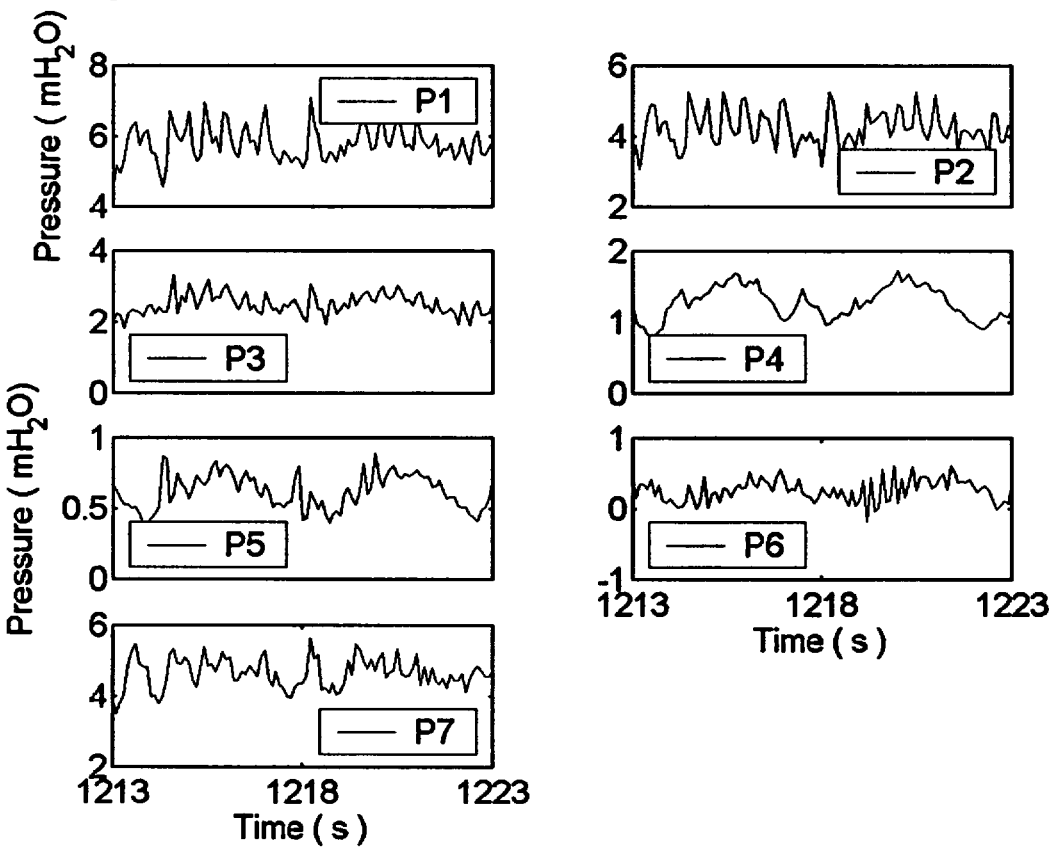

Figure A19.12. Pressure data in detail at q = 1.343 MW/m^2.

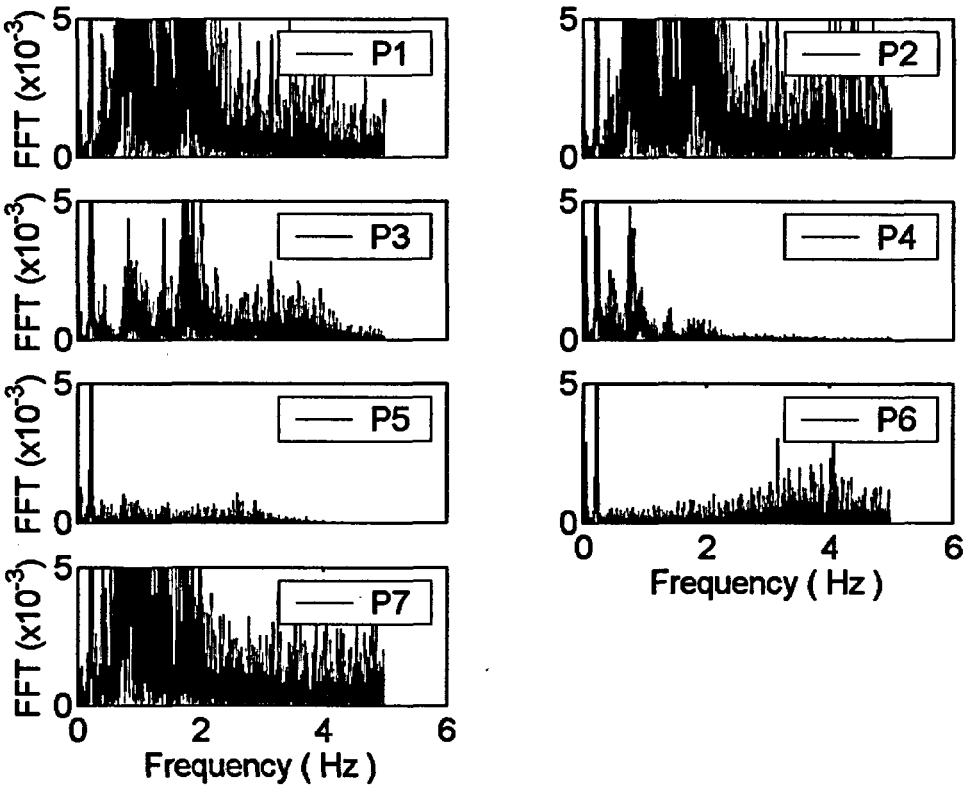

Figure A19.13. FFT of pressure time series for time interval 301 to 1406 s.

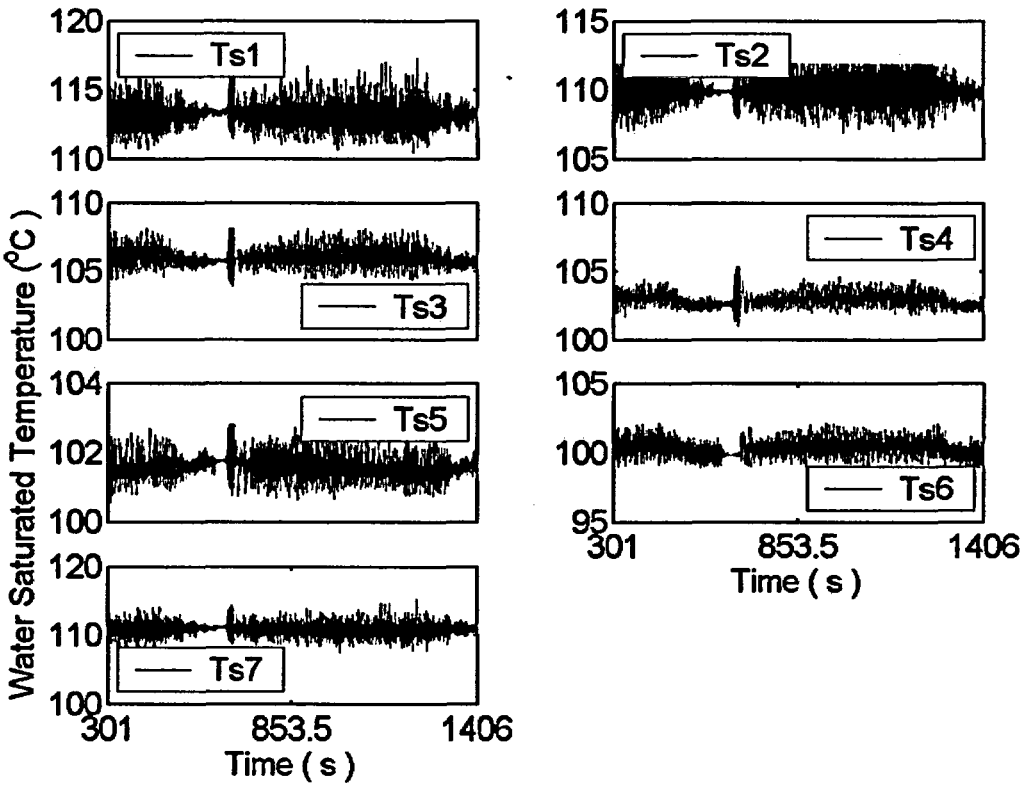

Figure A19.14. Water saturation temperature calculated from local pressure data for time interval 301 to 1406 s.

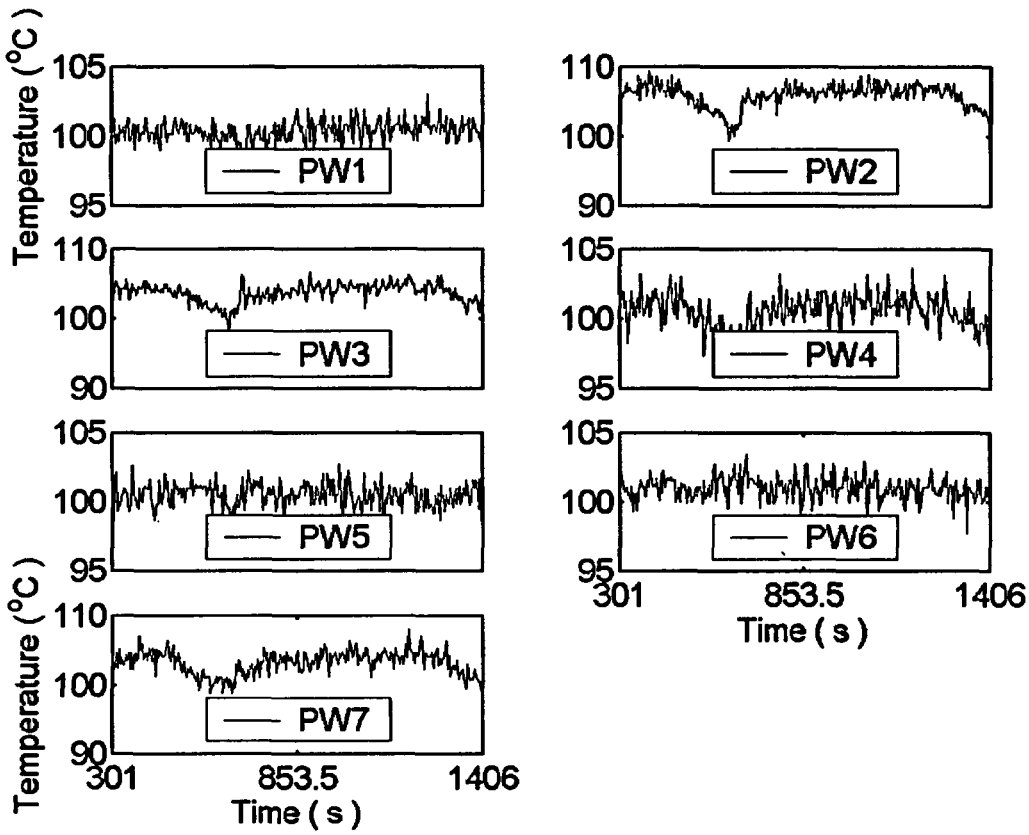

Figure A19.15. Water temperature measured at location of pressure transducer for time interval 301 to 1406 s.

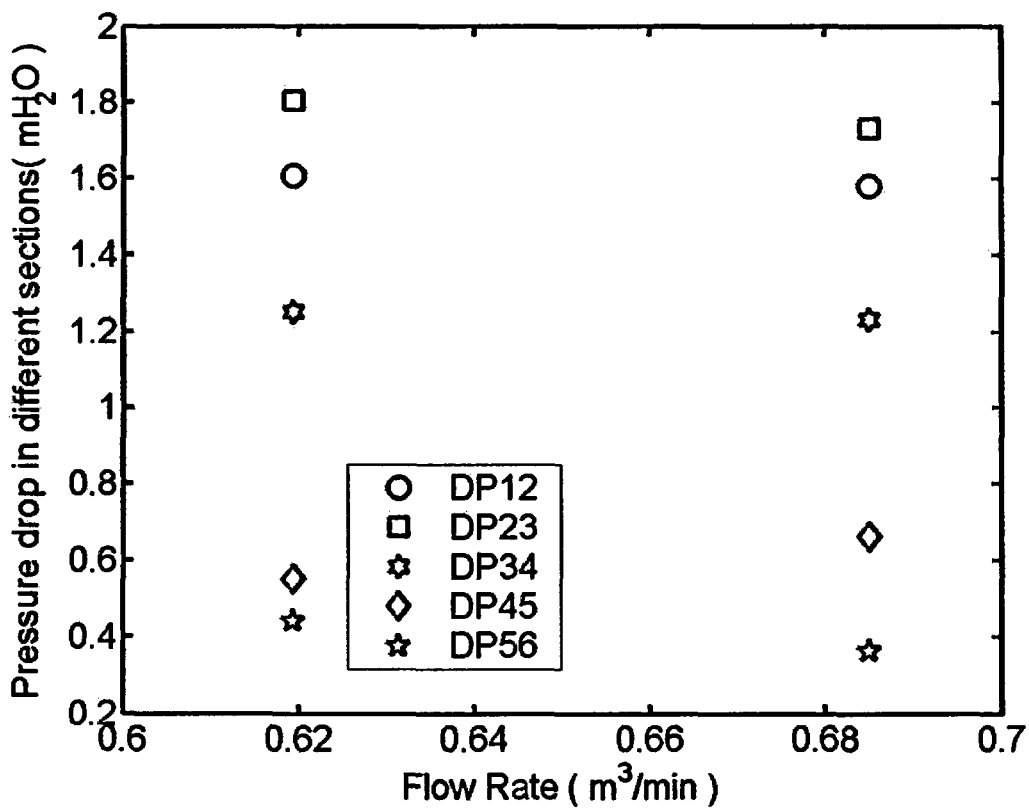

Figure A19.16. Pressure drop vs. flow rate at different heat fluxes.

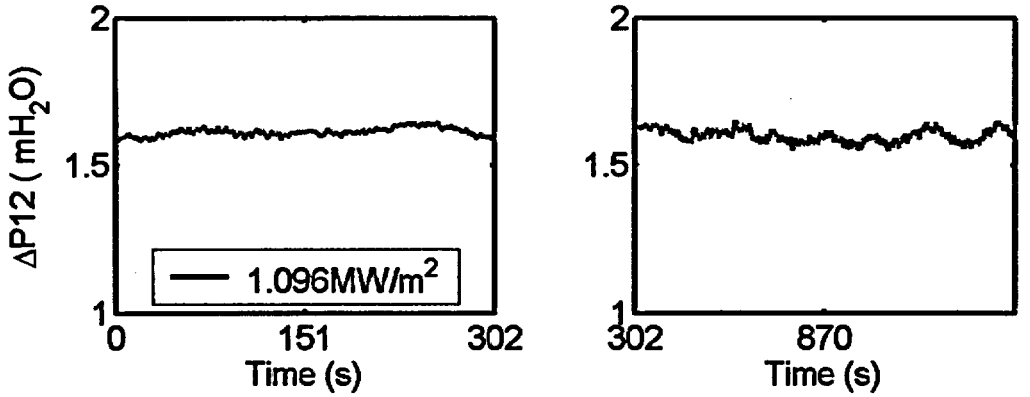

Figure A19.17. Differential Pressure ΔP12 at different heat fluxes.

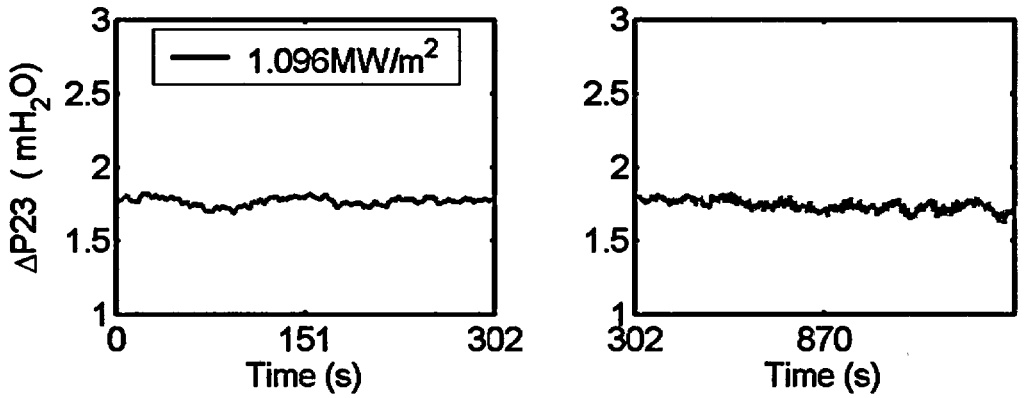

Figure A19.18. Differential Pressure ΔP23 at different heat fluxes.

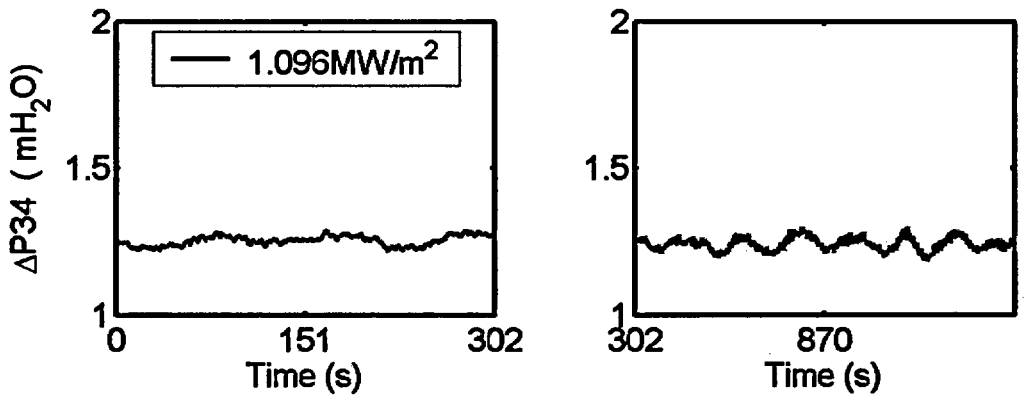

Figure A19.19. Differential Pressure ΔP34 at different heat fluxes.

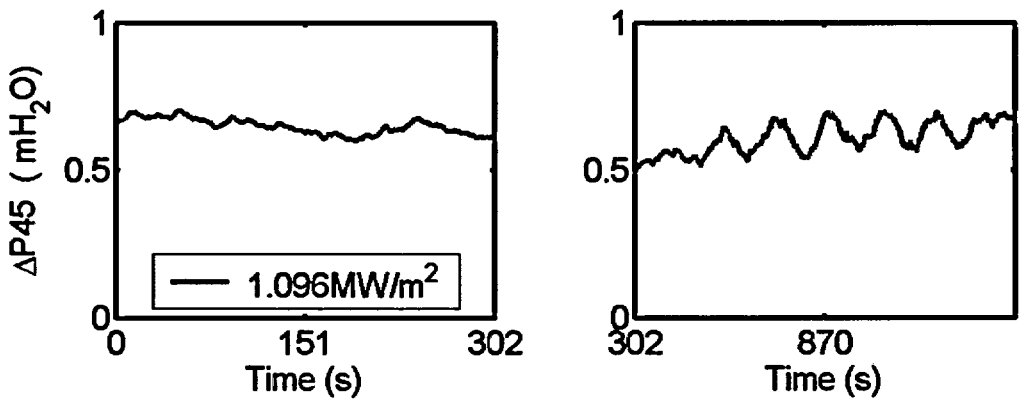

Figure A19.20. Differential Pressure ΔP45 at different heat fluxes.

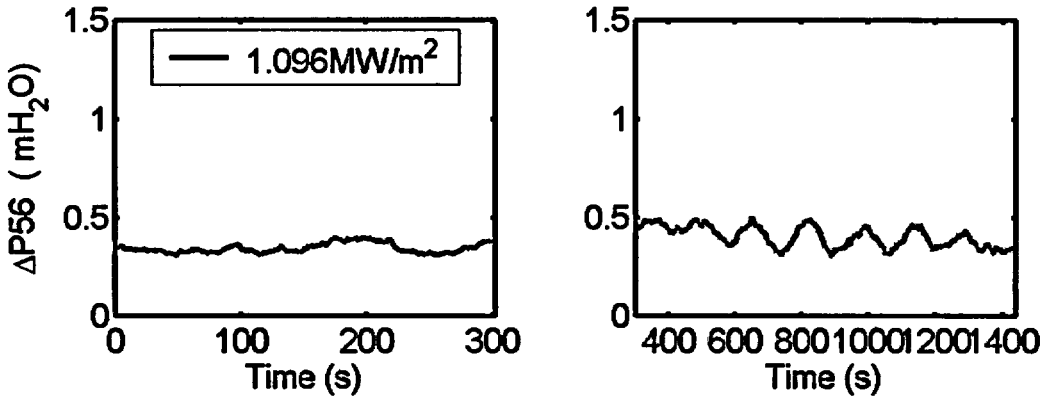

Figure A19.21. Differential Pressure ΔP56 at different heat fluxes.

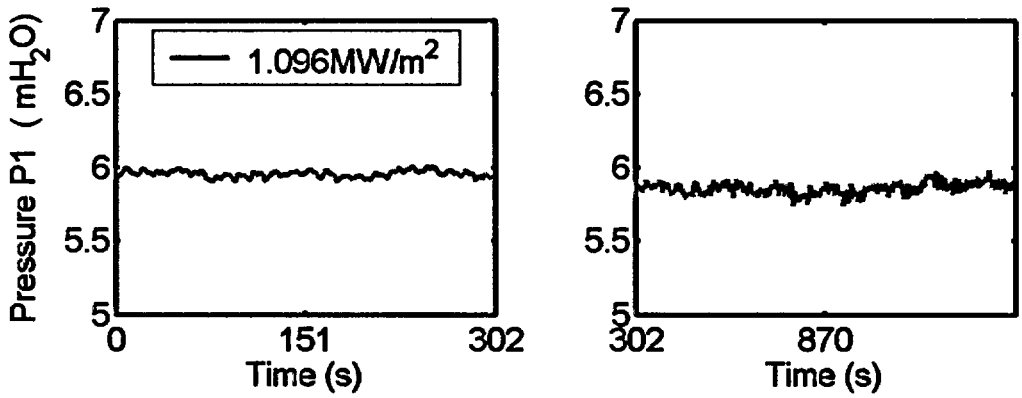

Figure A19.22. Pressure P1 at different heat fluxes.

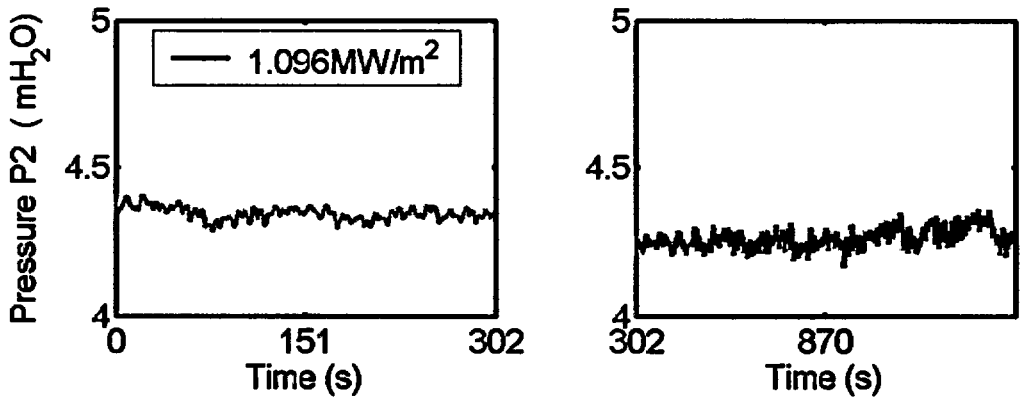

Figure A19.23. Pressure P2 at different heat fluxes.

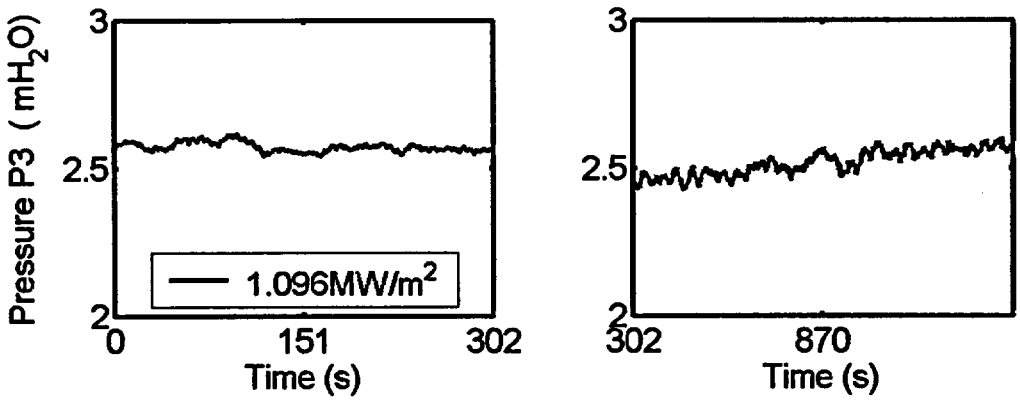

Figure A19.24. Pressure P3 at different heat fluxes.

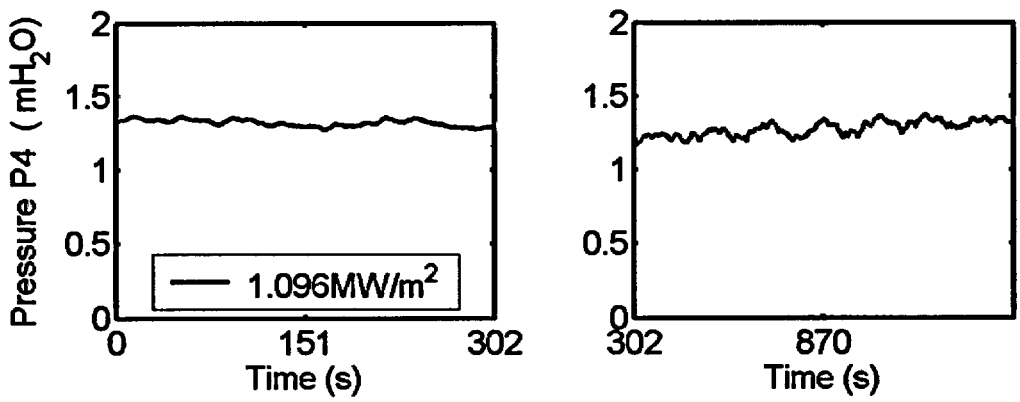

Figure A19.25. Pressure P4 at different heat fluxes.

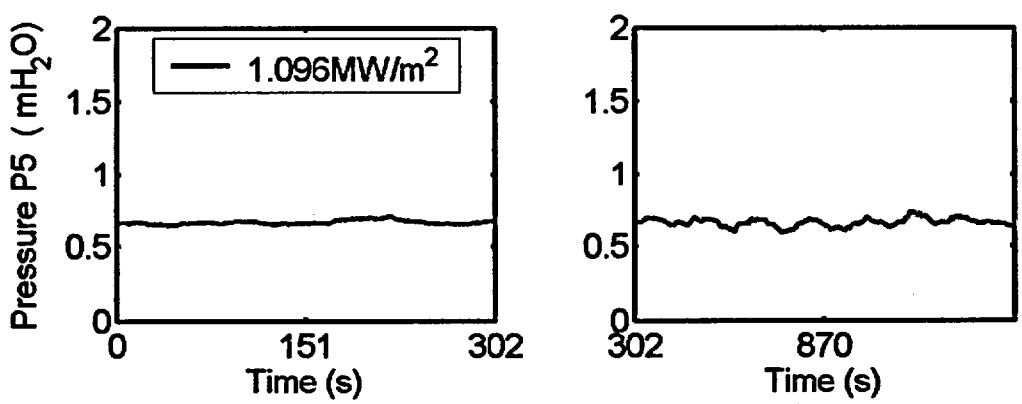

Figure A19.26. Pressure P5 at different heat fluxes.

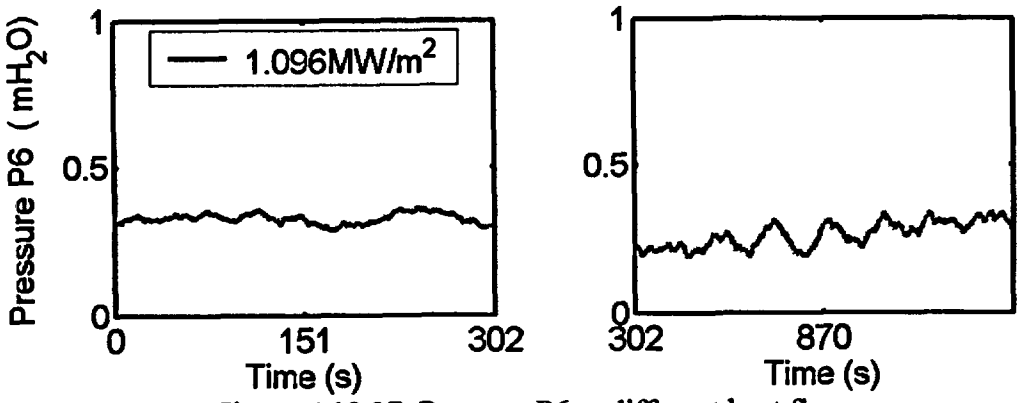

Figure A19.27. Pressure P6 at different heat fluxes.

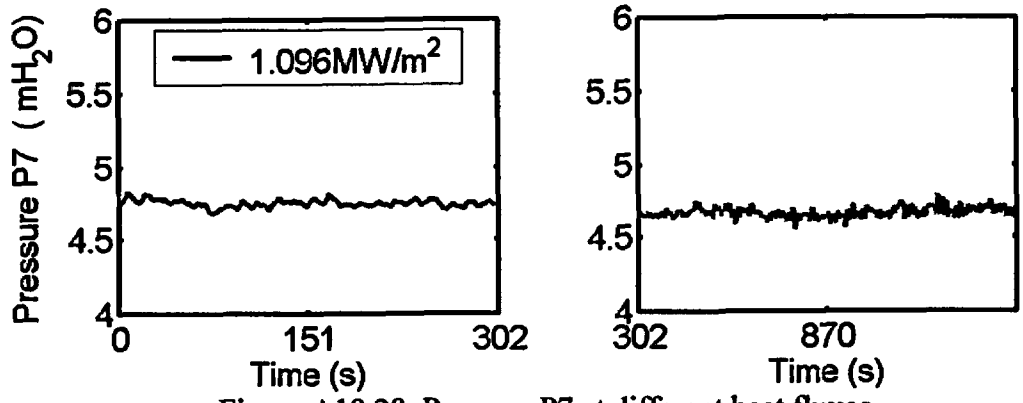

Figure A19.28. Pressure P7 at different heat fluxes.

ID #20

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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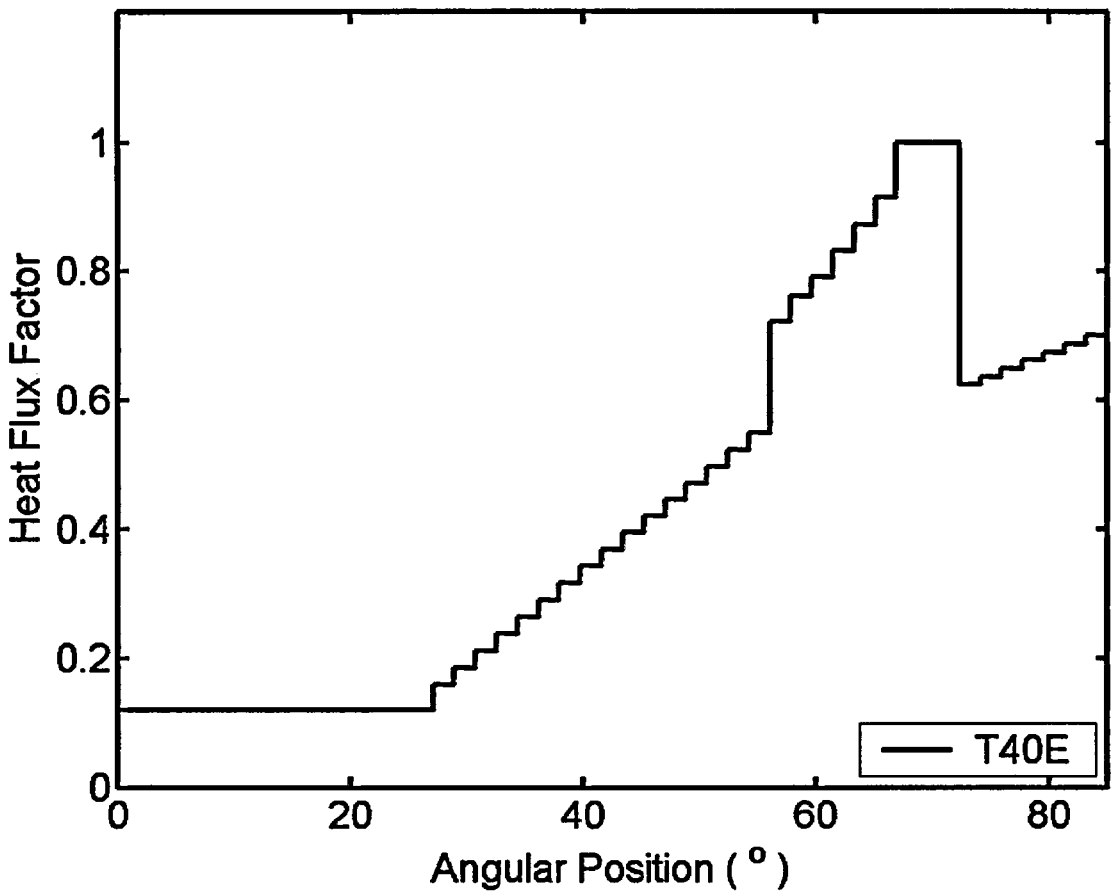

Figure A20.1. Power shape.

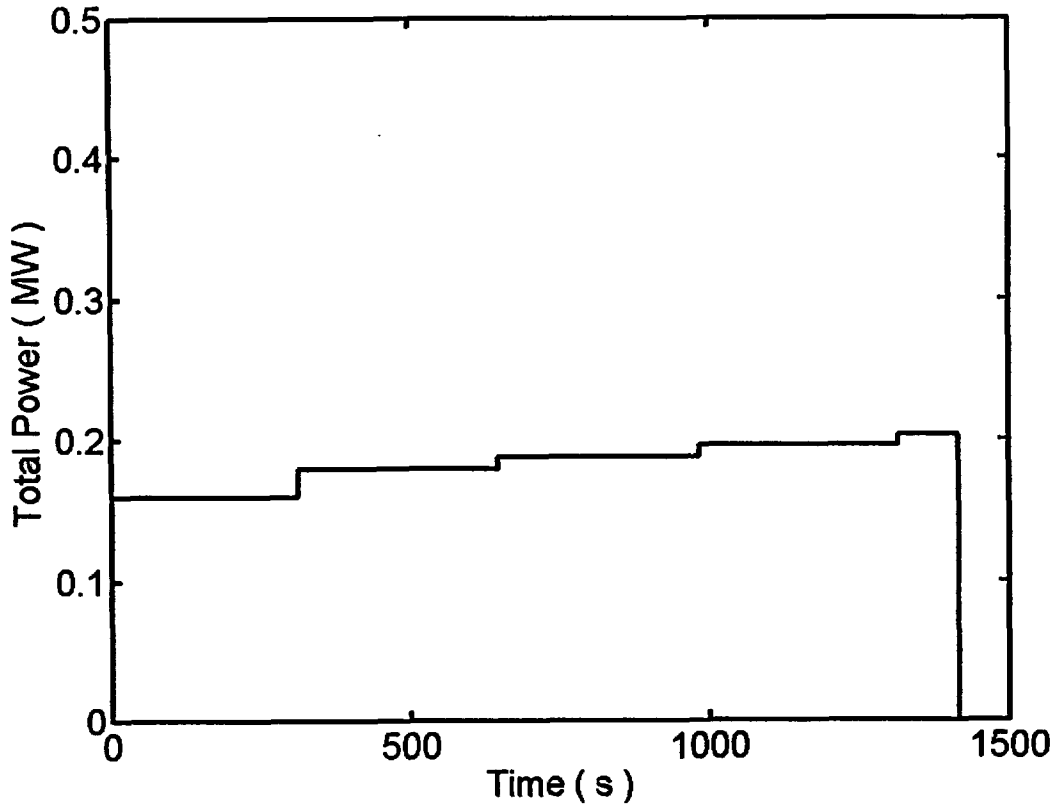

Figure A20.2. Total input power history.

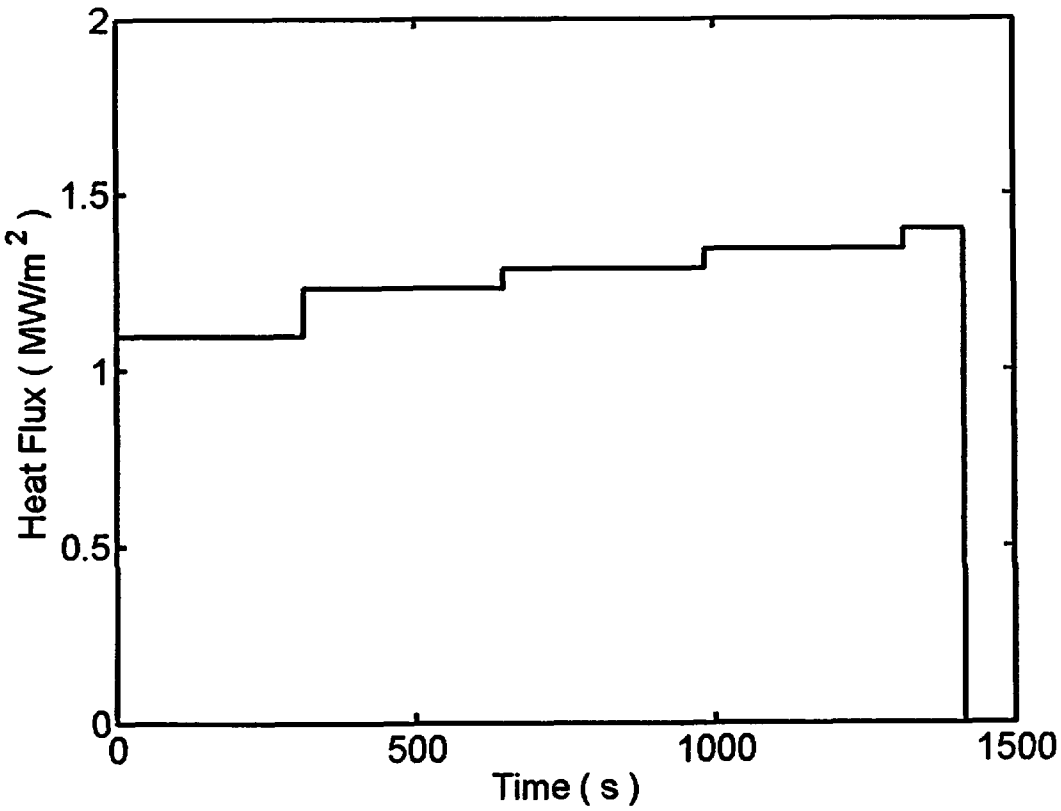

Figure A20.3. Heat flux history.

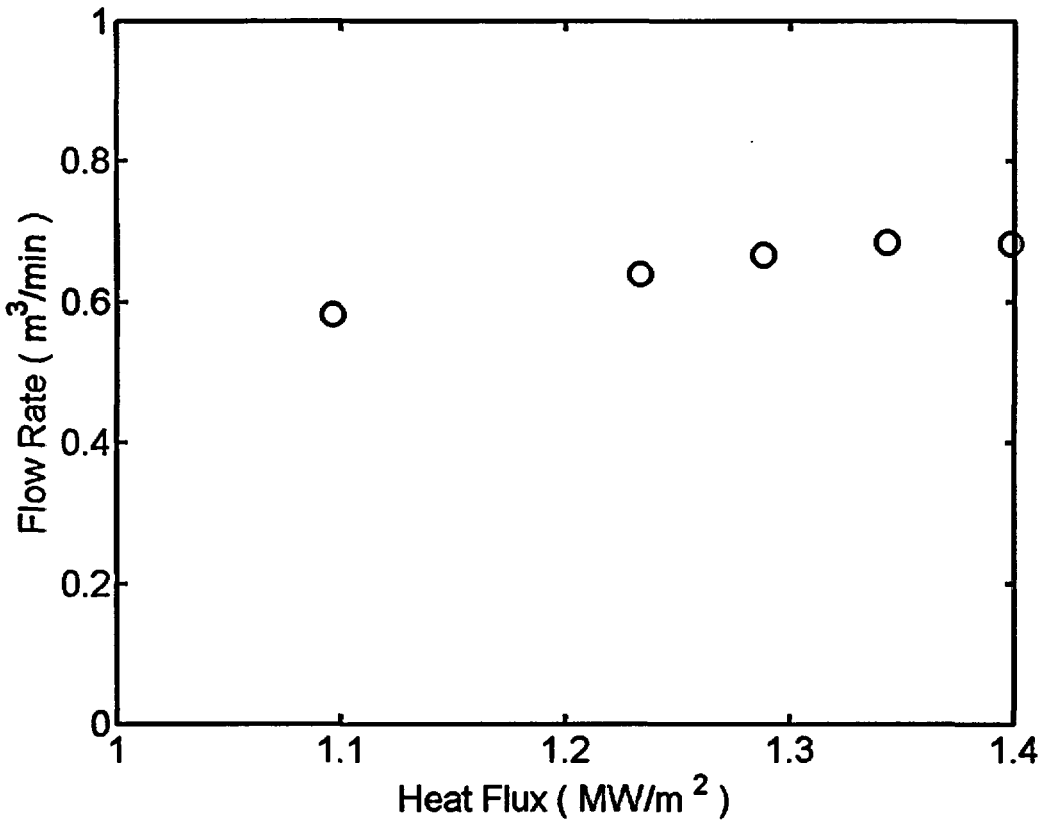

Figure A20.4. Flow rate vs. heat fluxes.

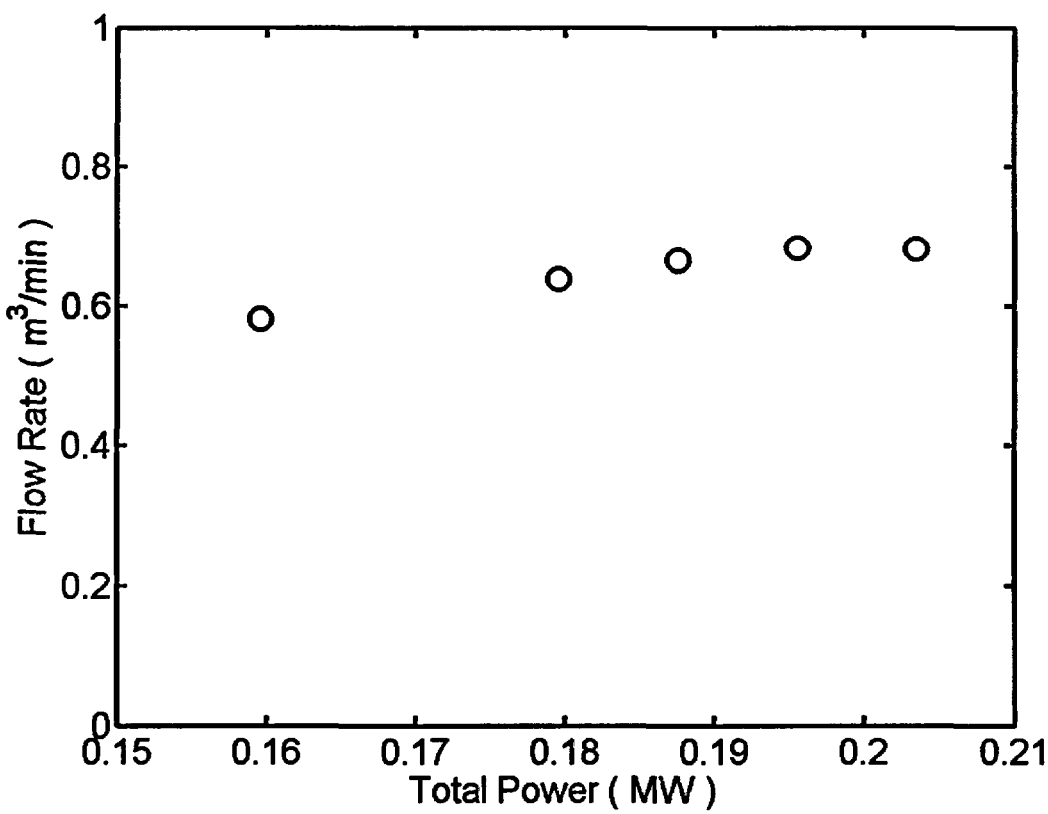

Figure A20.5. Flow rate vs. total input power.

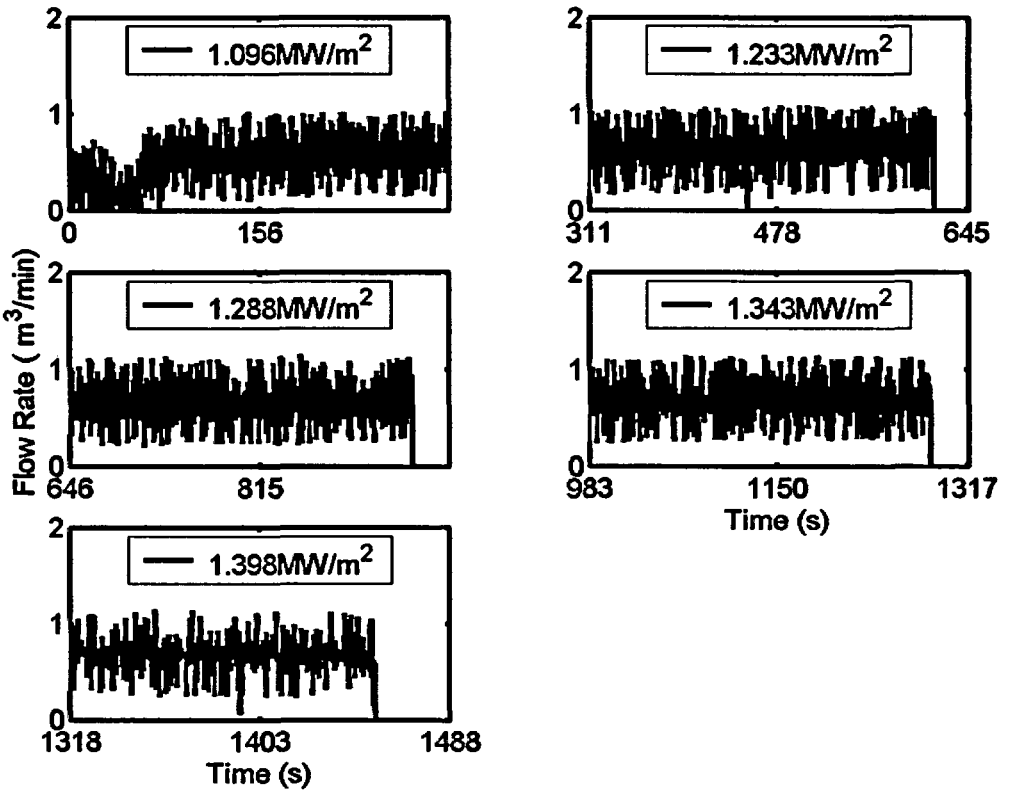

Figure A20.6. Flow rates at different heat fluxes.

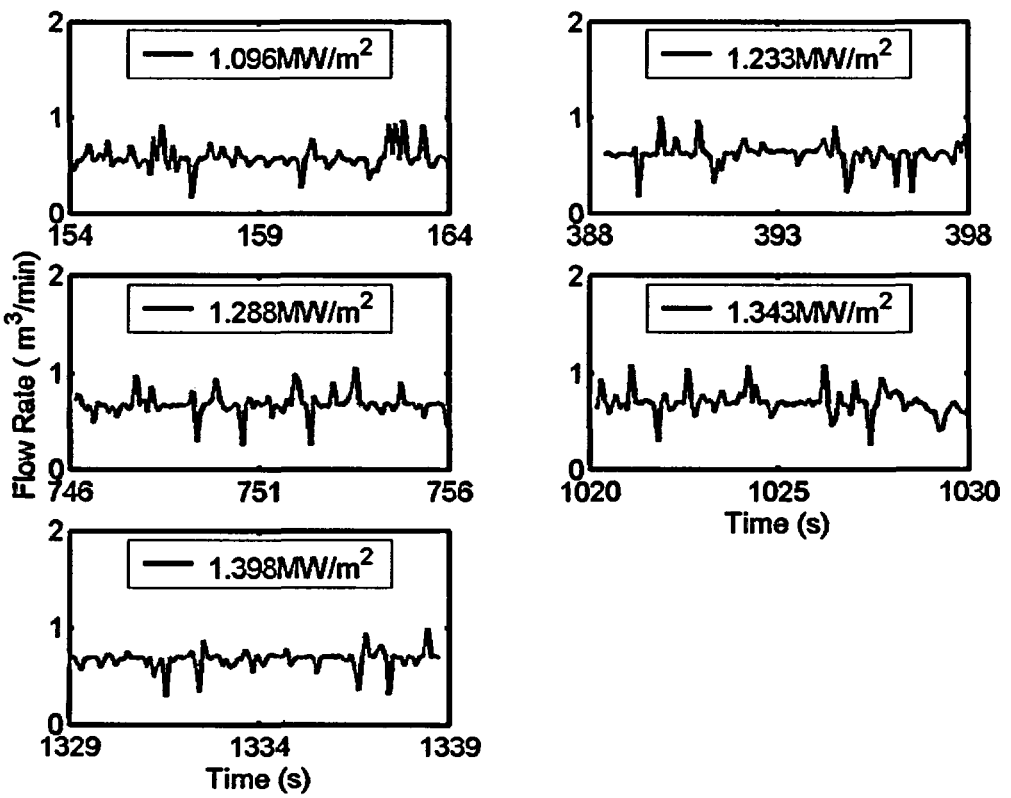

Figure A20.7. Flow rates at different heat fluxes at selected time intervals.

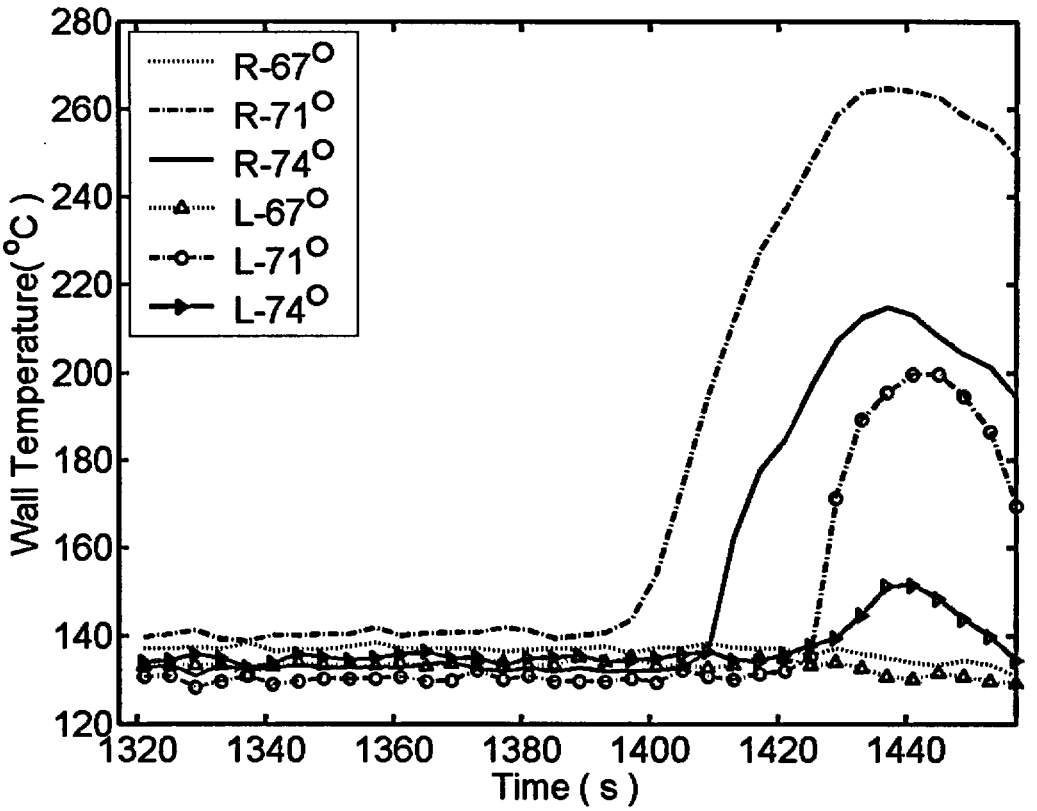

Figure A20.8. Temperature history at CHF.

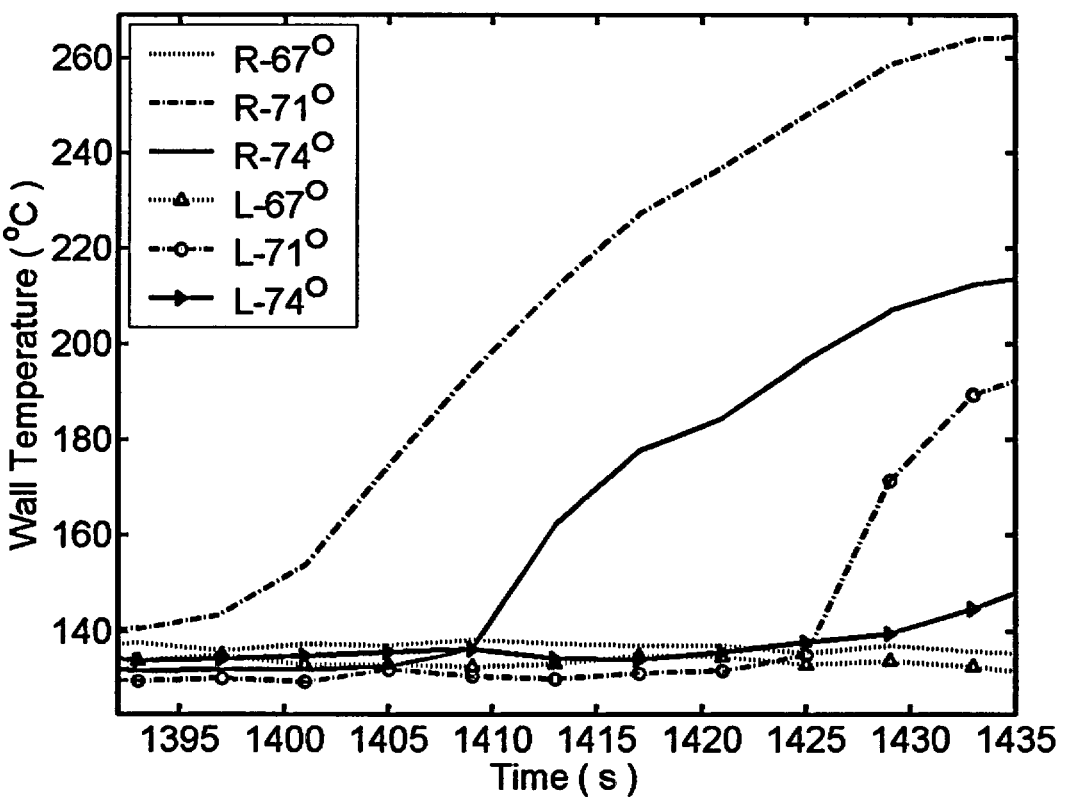

Figure A20.9. Temperature history at CHF in detail.

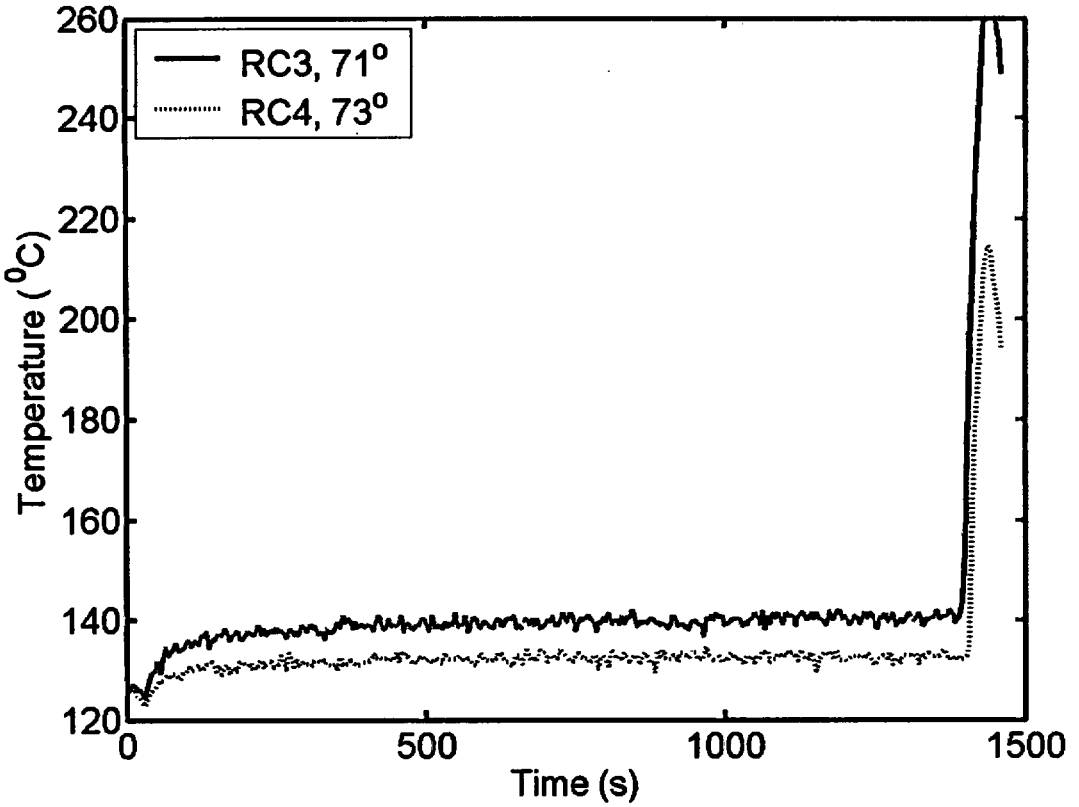

Figure A20.10. Wall temperature history measured by two thermocouples RC3 and RC4.

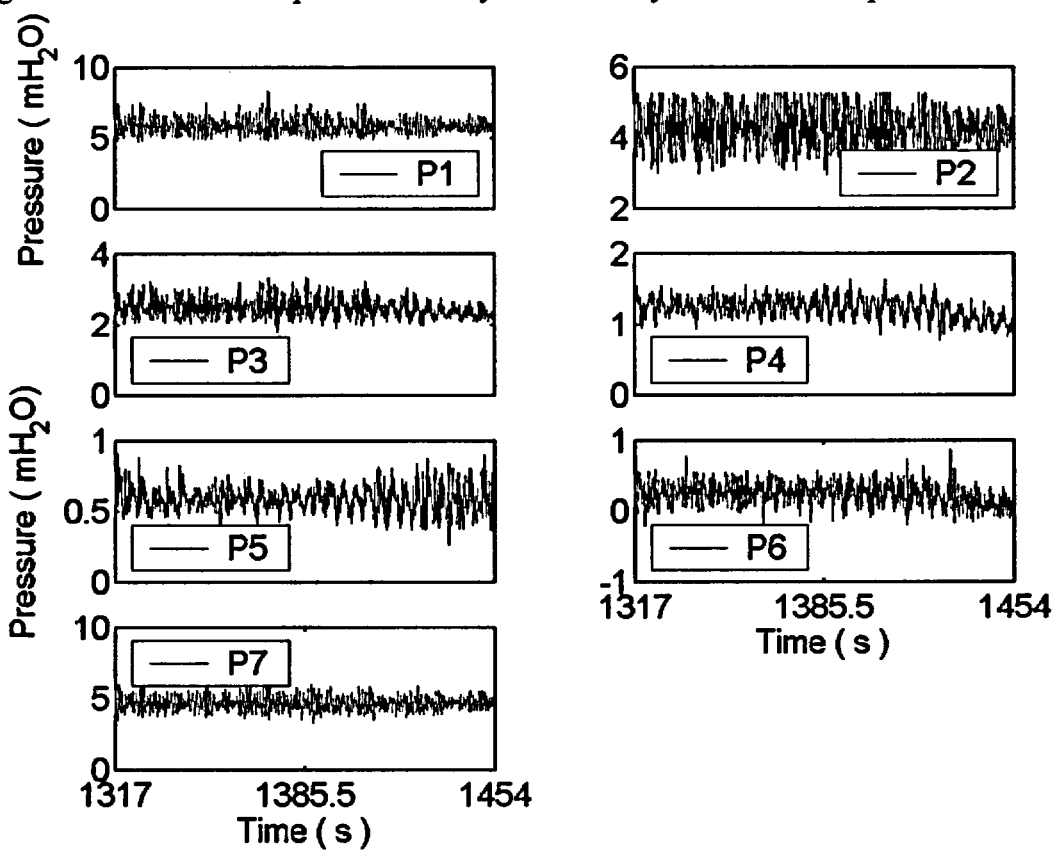

Figure A20.11. Pressure transducer data at q = 1.398 MW/m^2.

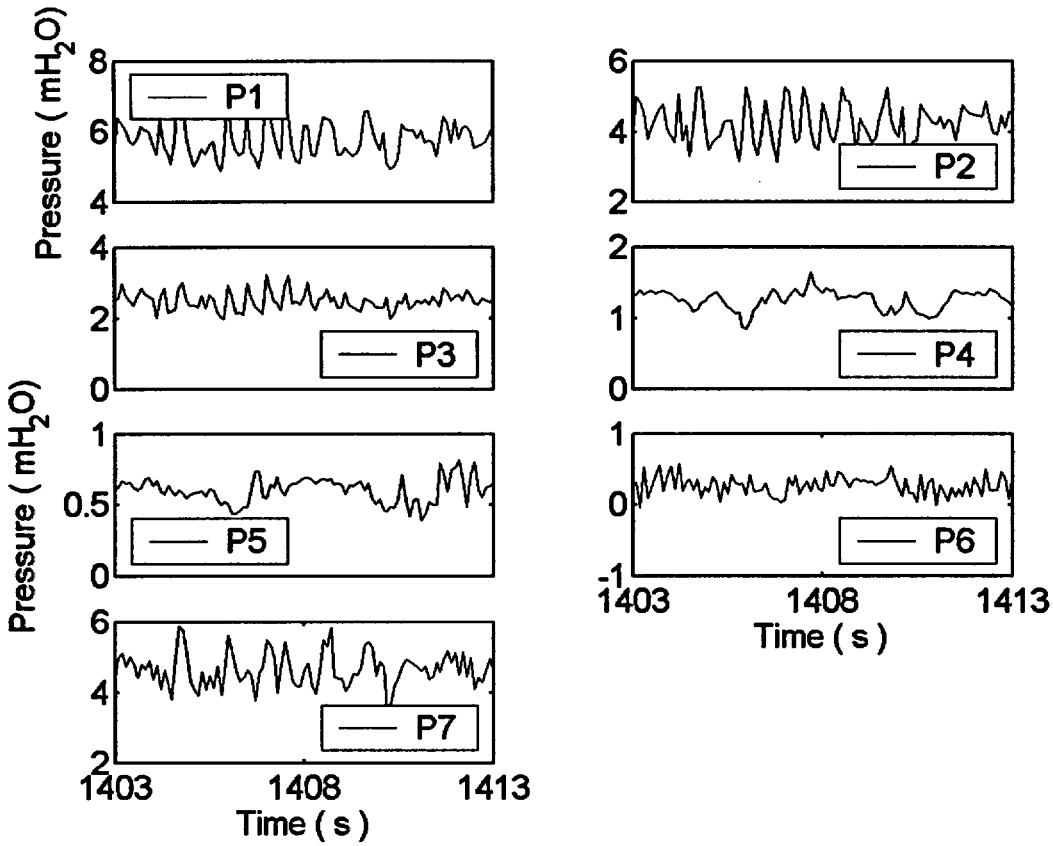

Figure A20.12. Pressure data in detail at q = 1.398 MW/m^2.

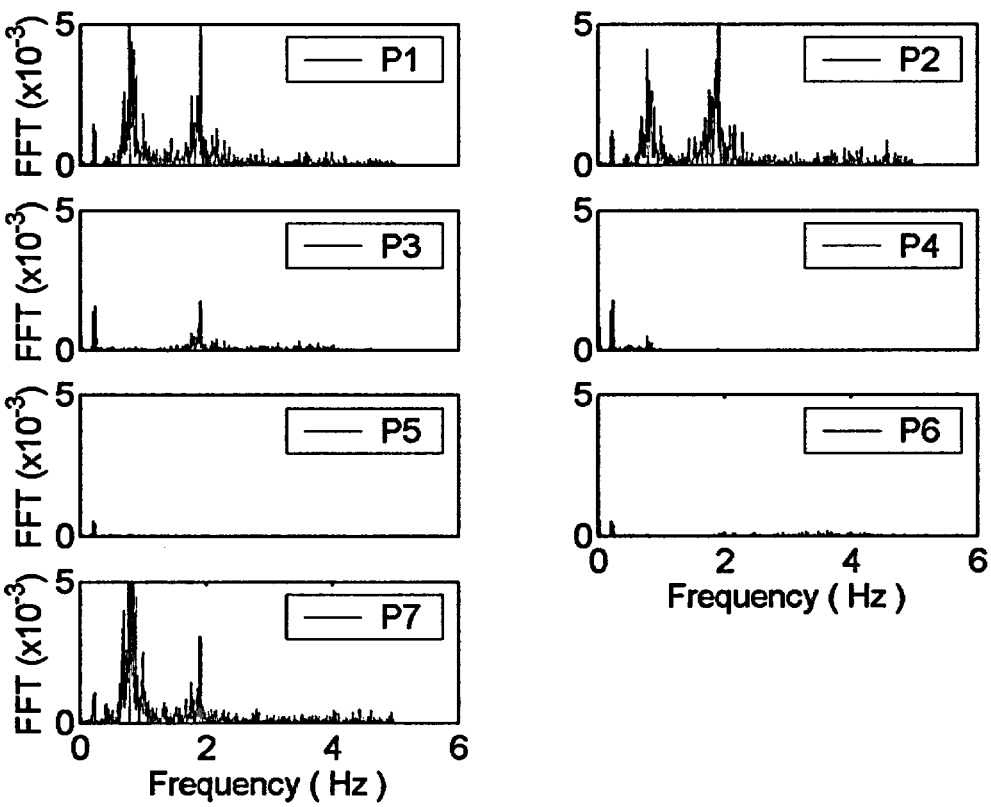

Figure A20.13. FFT of pressure time series at q = 1.398 MW/m^2.

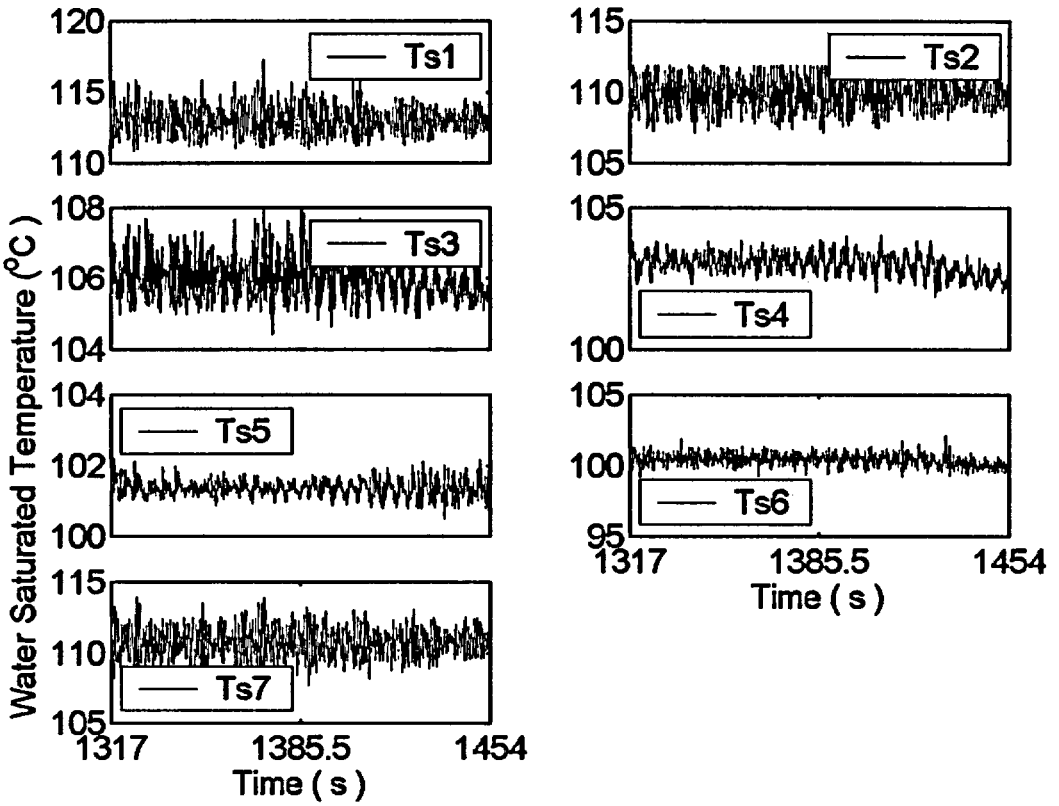

Figure A20.14. Water saturation temperature calculated from local pressure data at q = 1.398 MW/m^2.

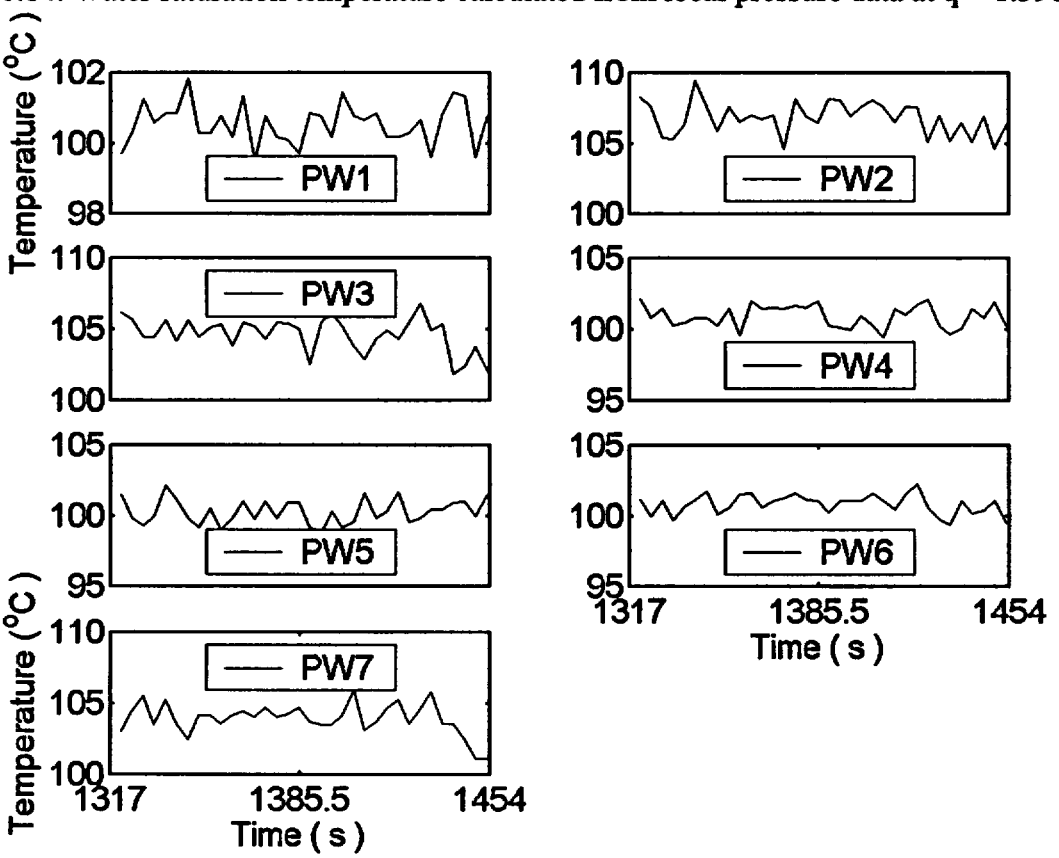

Figure A20.15. Water temperature measured at location of pressure transducer at q = 1.398 MW/m^2.

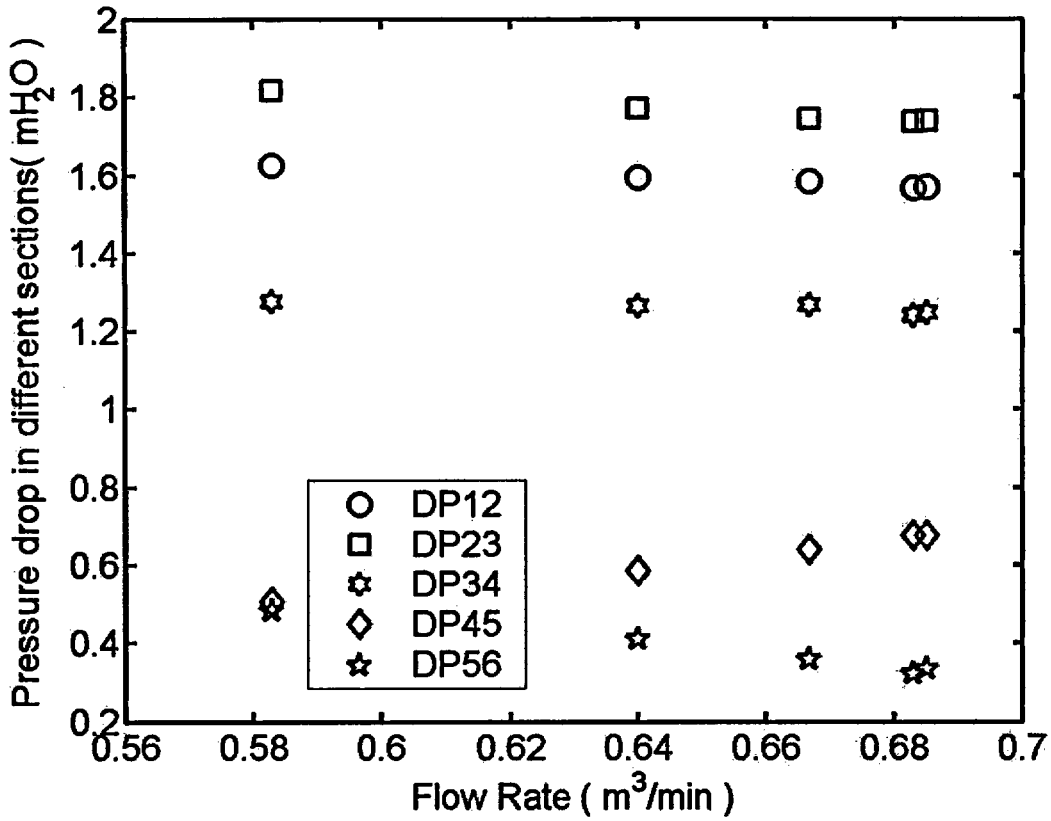

Figure A20.16. Pressure drop vs. flow rate at different heat fluxes.

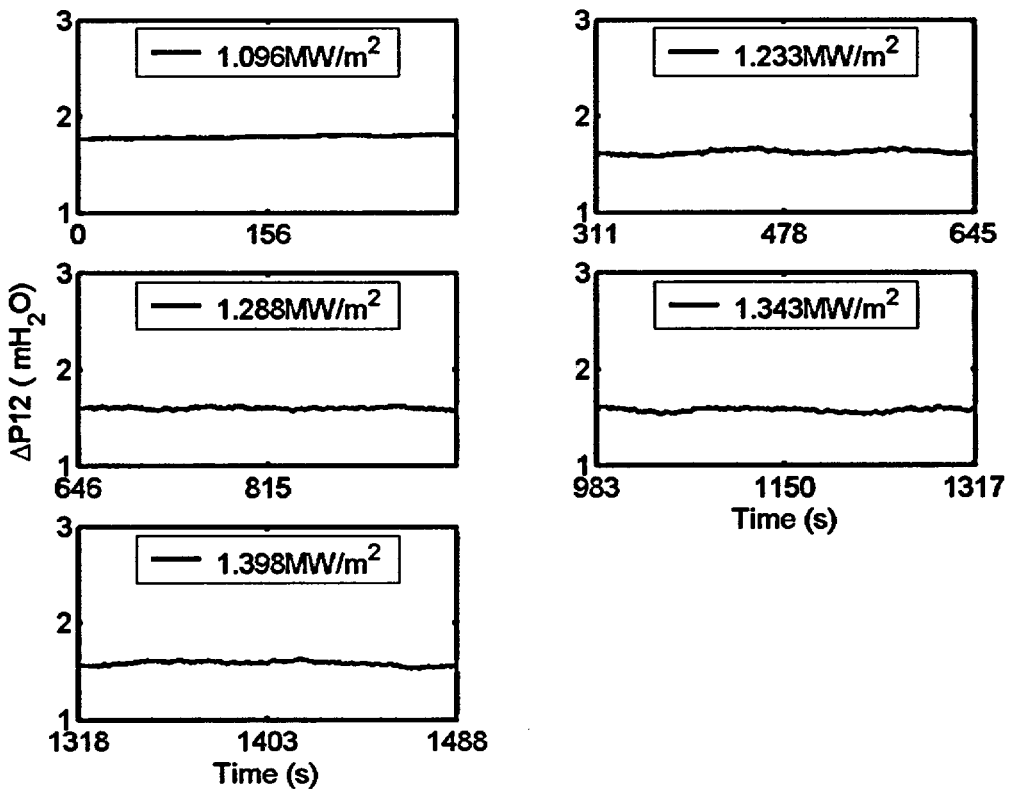

Figure A20.17. Differential Pressure ΔP12 at different heat fluxes.

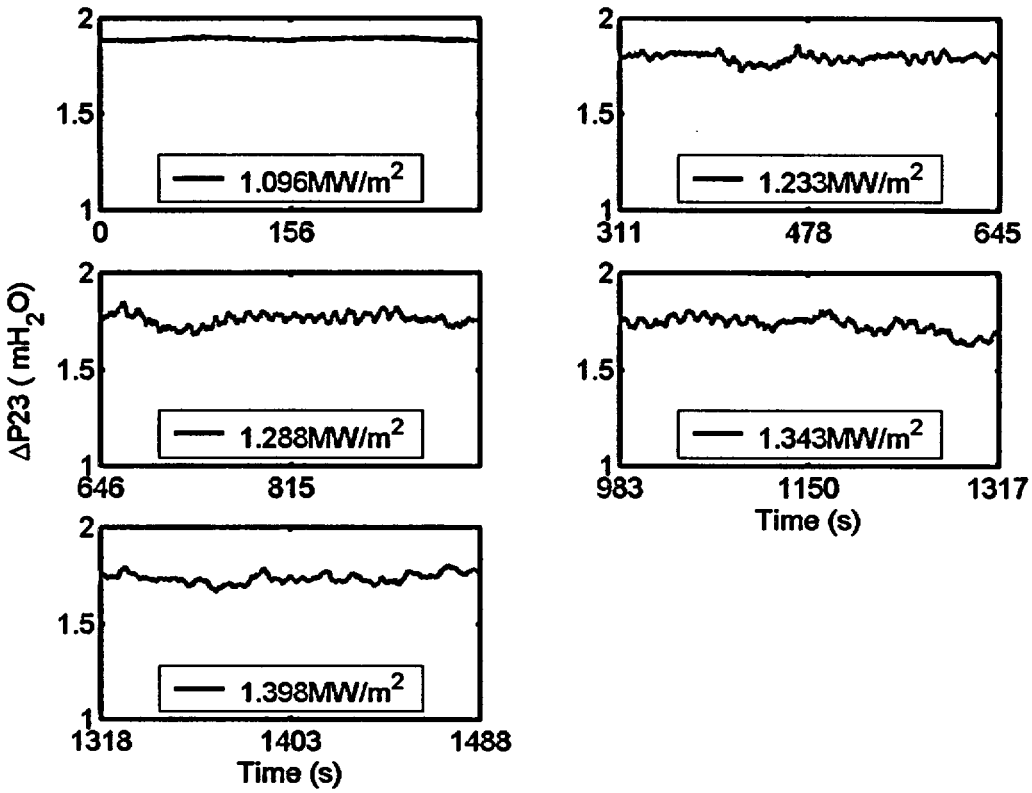

Figure A20.18. Differential Pressure ΔP23 at different heat fluxes.

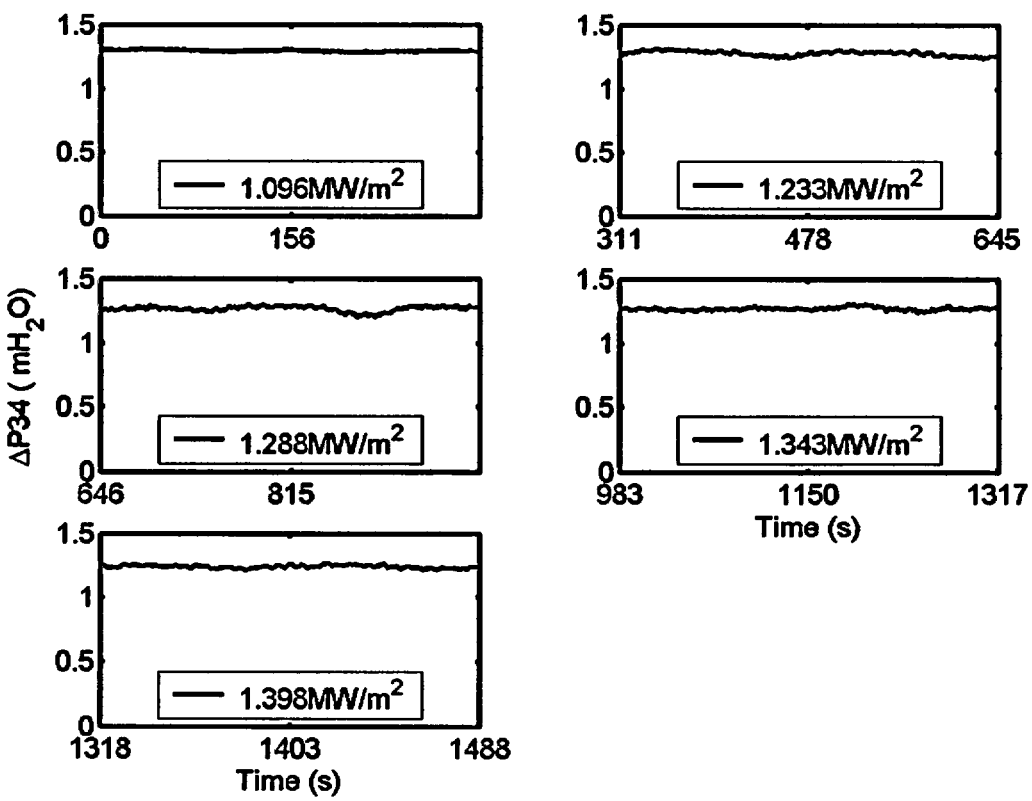

Figure A20.19. Differential Pressure ΔP34 at different heat fluxes.

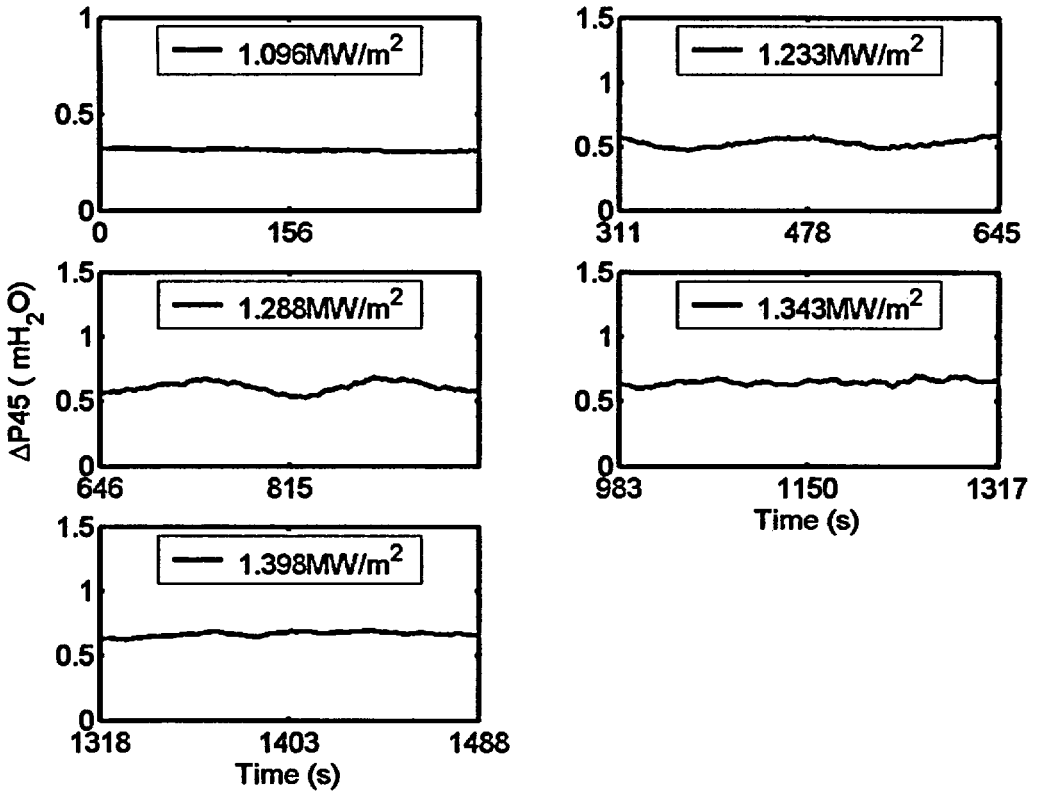

Figure A20.20. Differential Pressure ΔP45 at different heat fluxes.

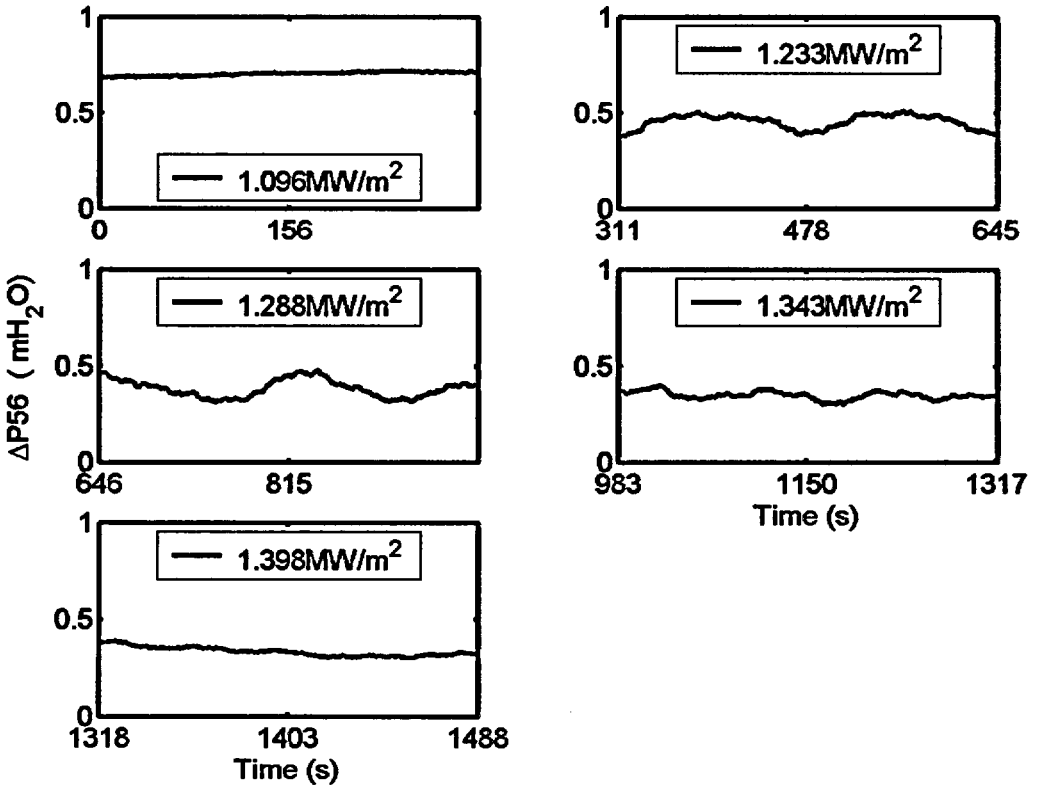

Figure A20.21. Differential Pressure ΔP56 at different heat fluxes.

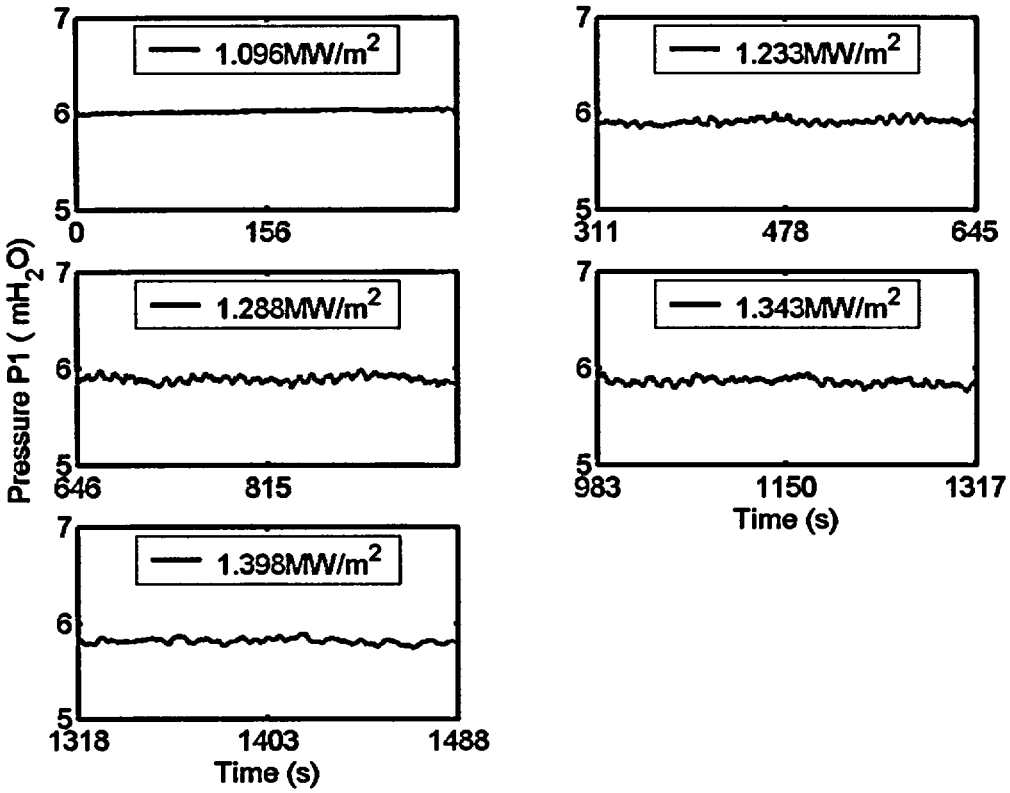

Figure A20.22. Pressure P1 at different heat fluxes.

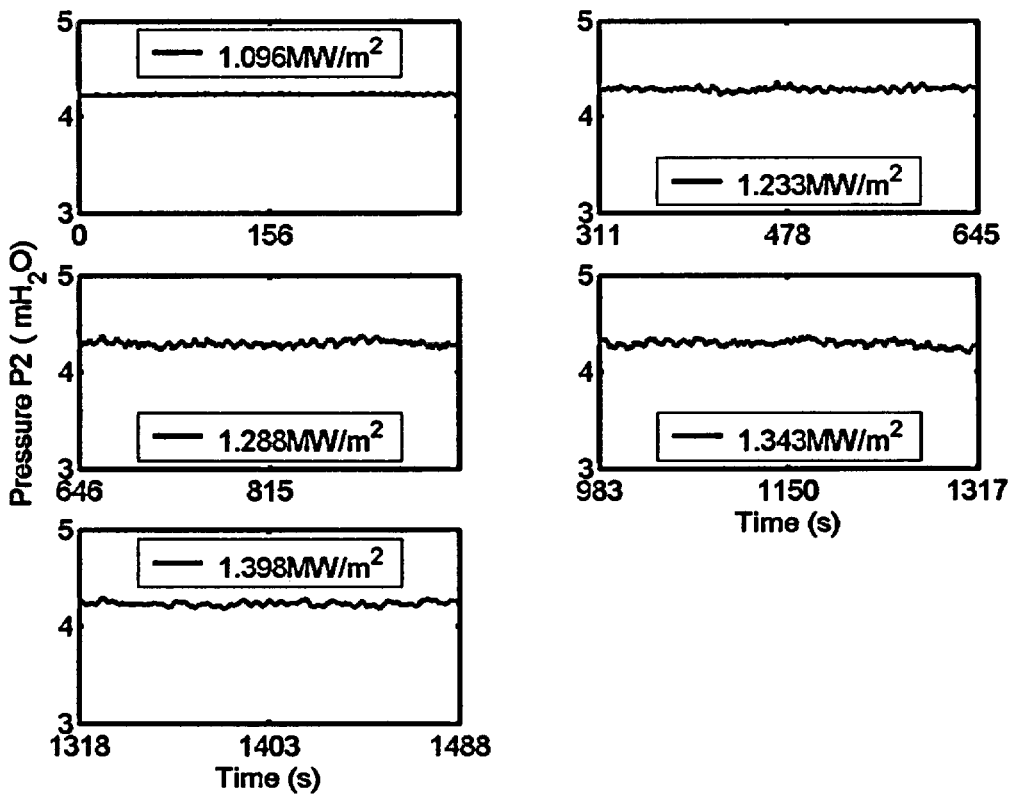

Figure A20.23. Pressure P2 at different heat fluxes.

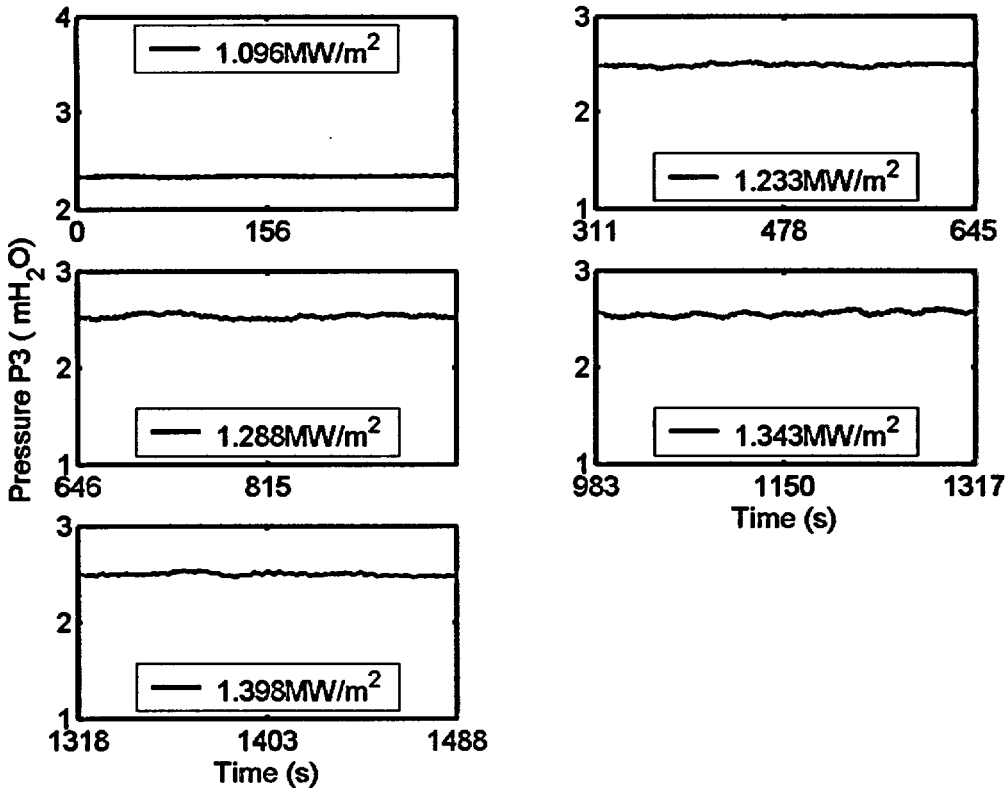

Figure A20.24. Pressure P3 at different heat fluxes.

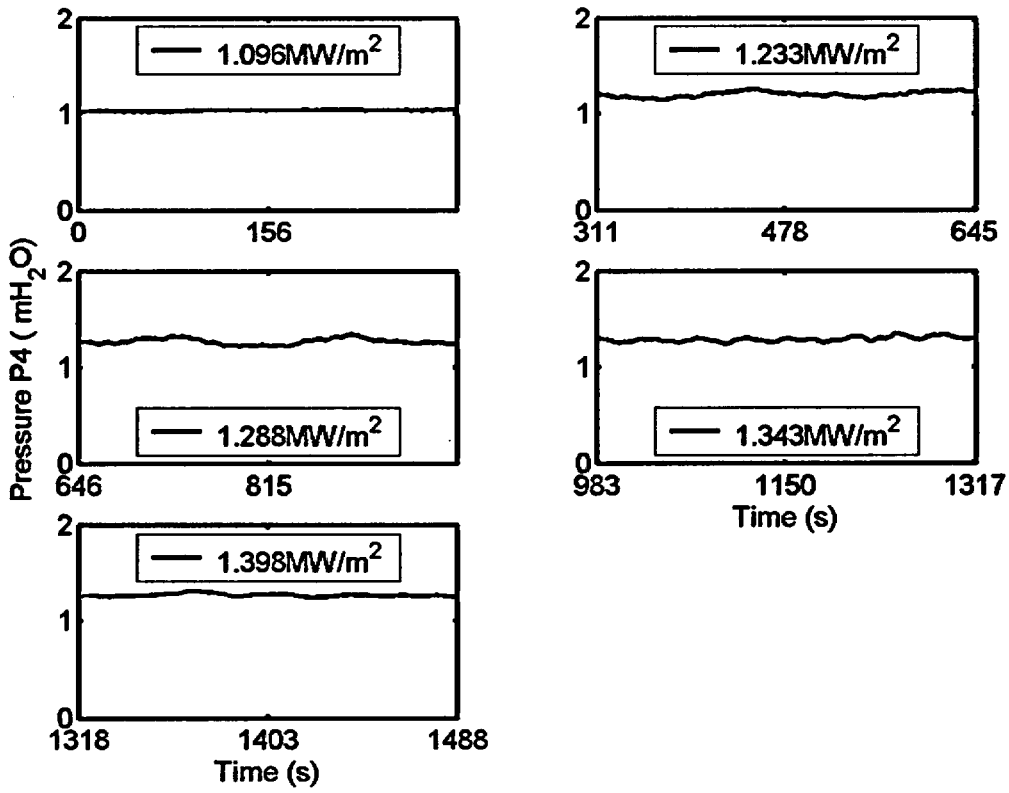

Figure A20.25. Pressure P4 at different heat fluxes.

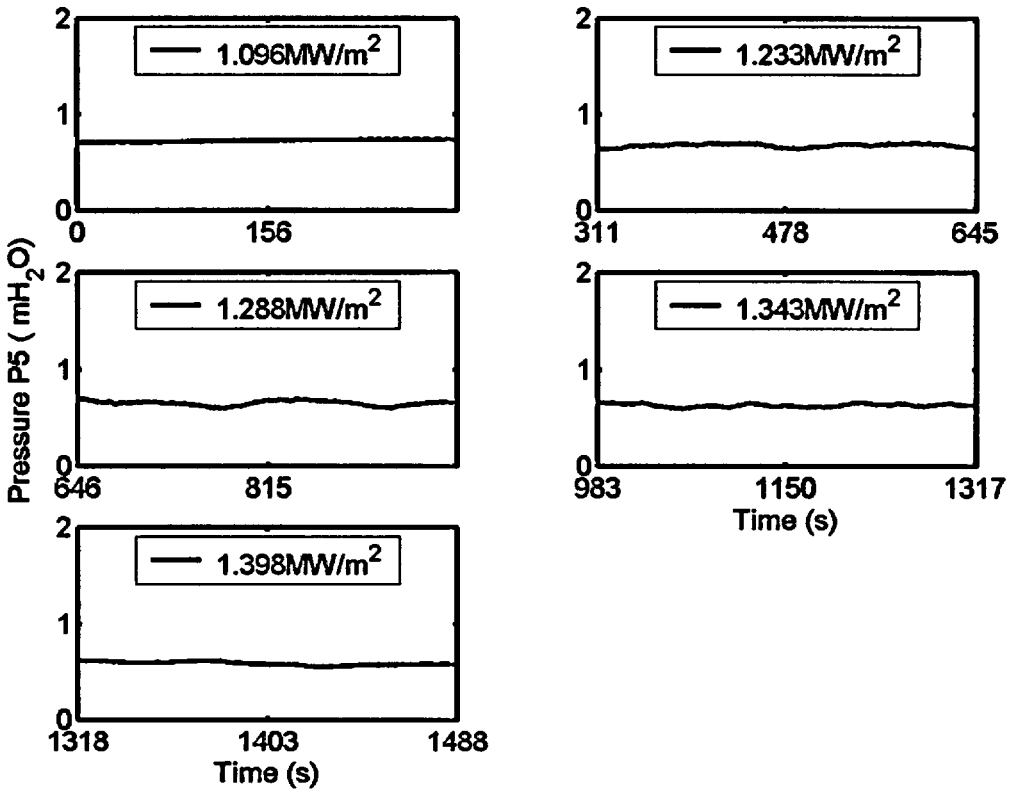

Figure A20.26. Pressure P5 at different heat fluxes.

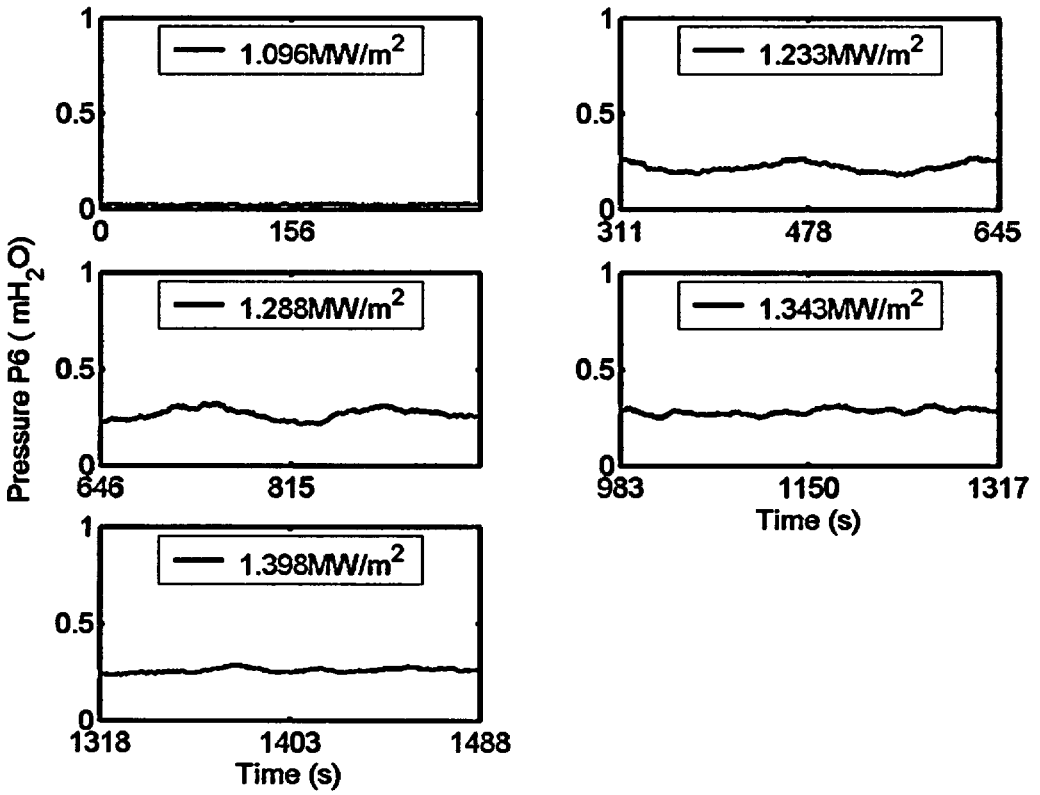

Figure A20.27. Pressure P6 at different heat fluxes.

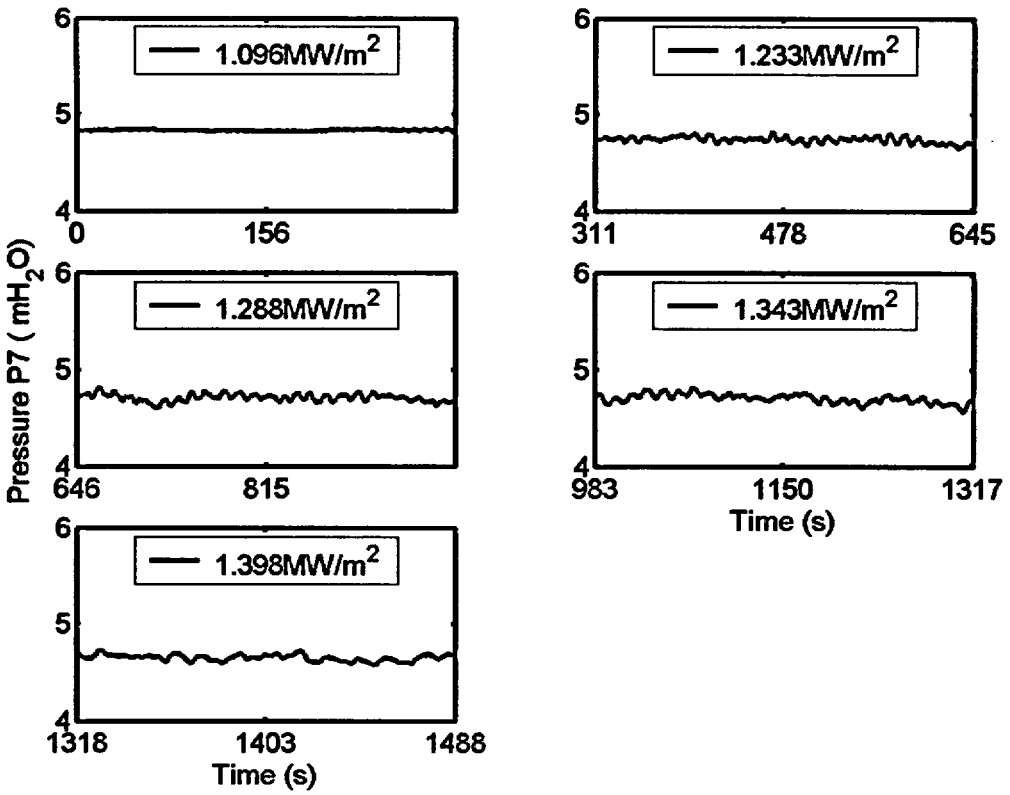

Figure A20.28. Pressure P7 at different heat fluxes.

ID #21

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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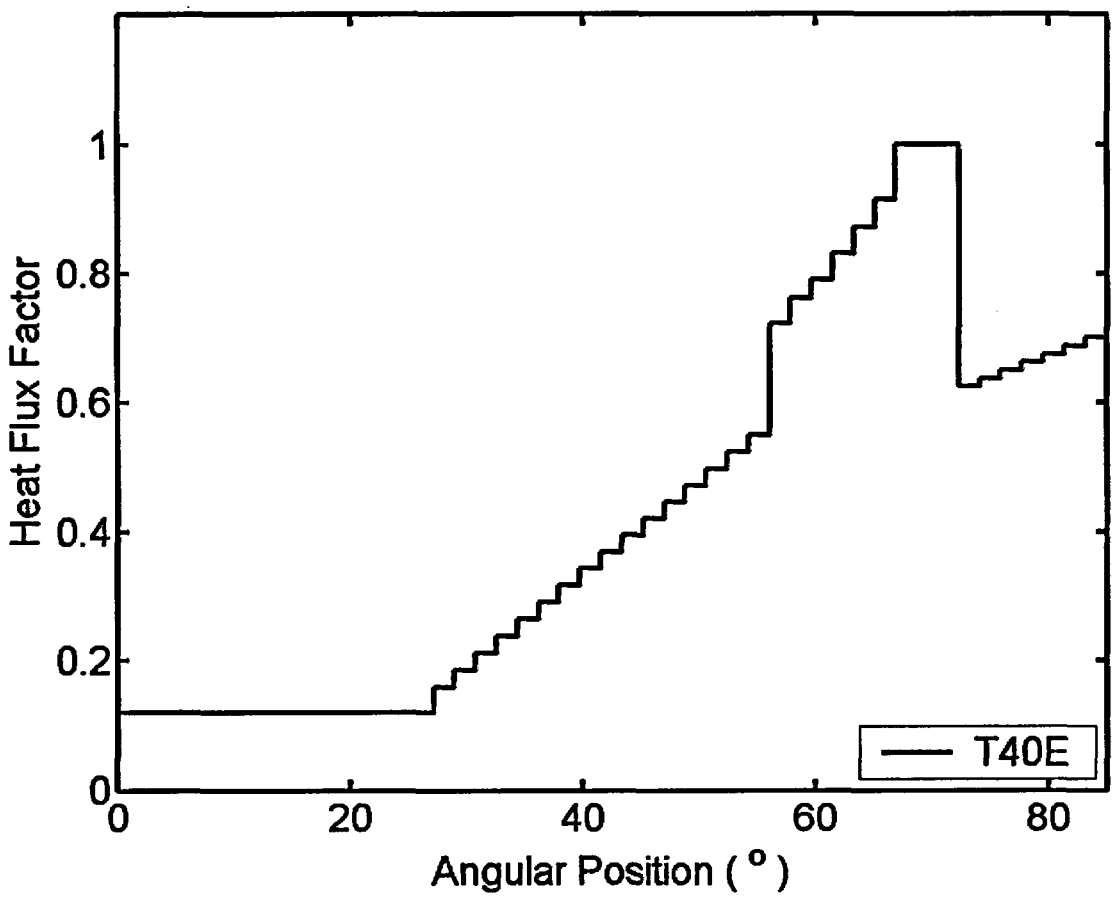

Figure A21.1. Power shape.

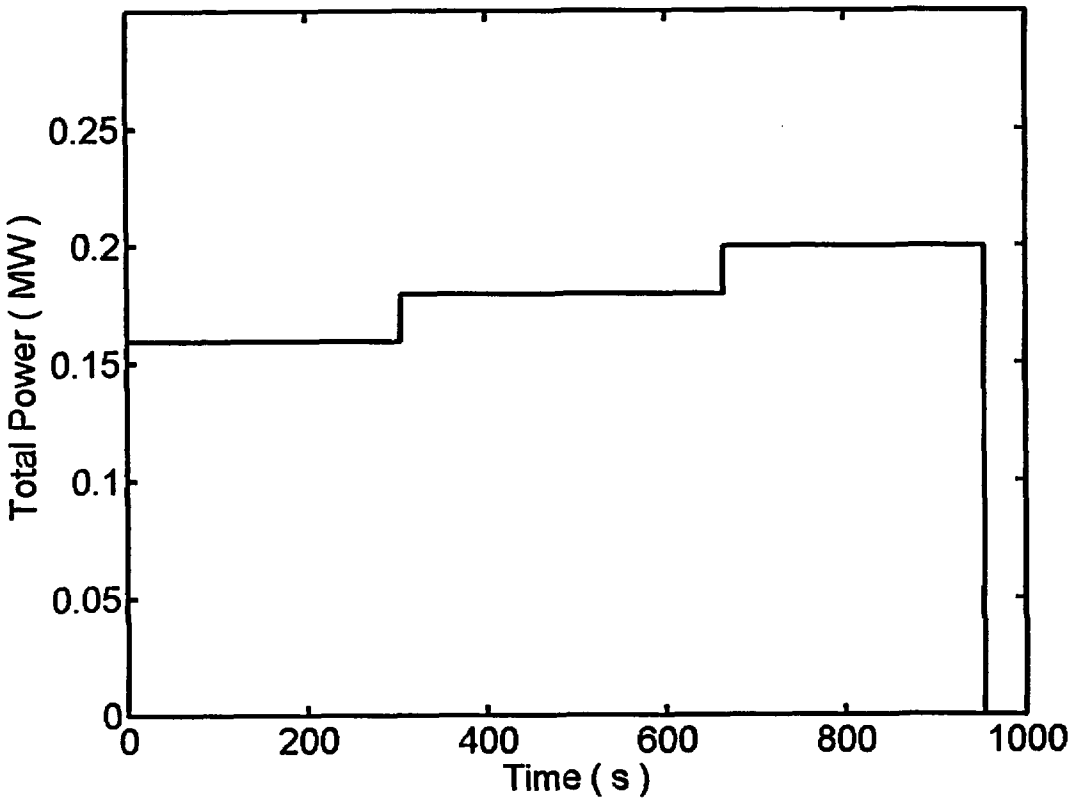

Figure A21.2. Total input power history.

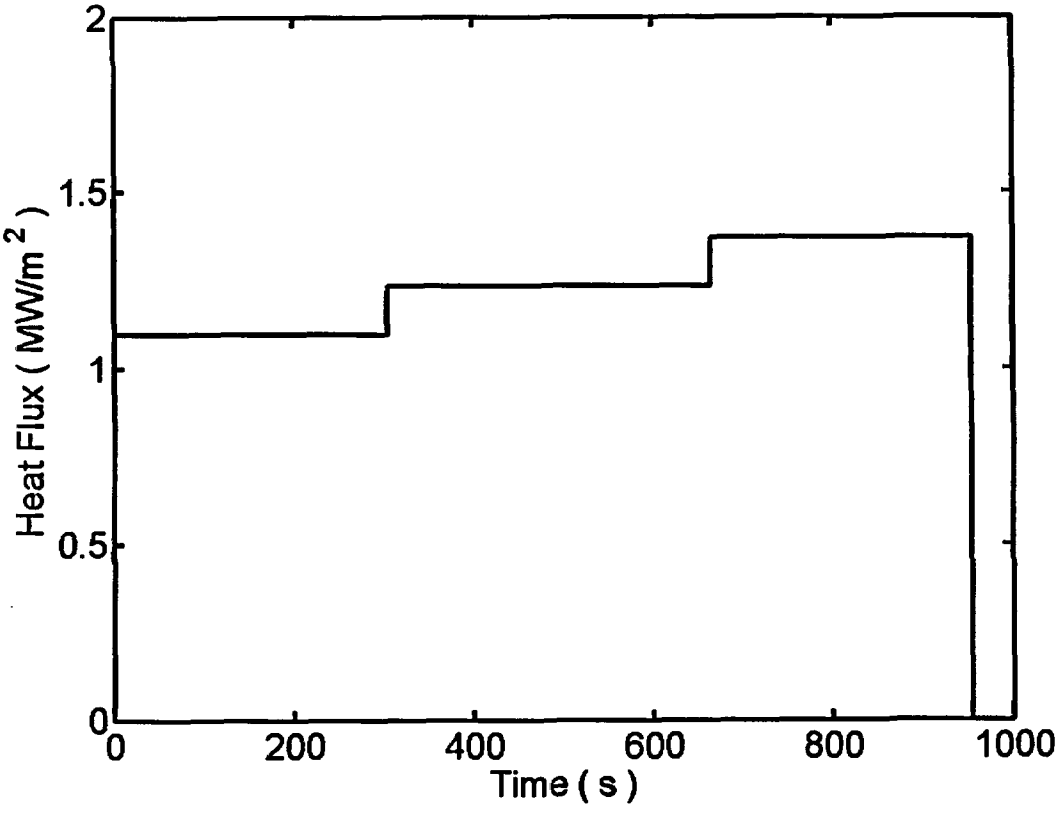

Figure A21.3. Heat flux history.

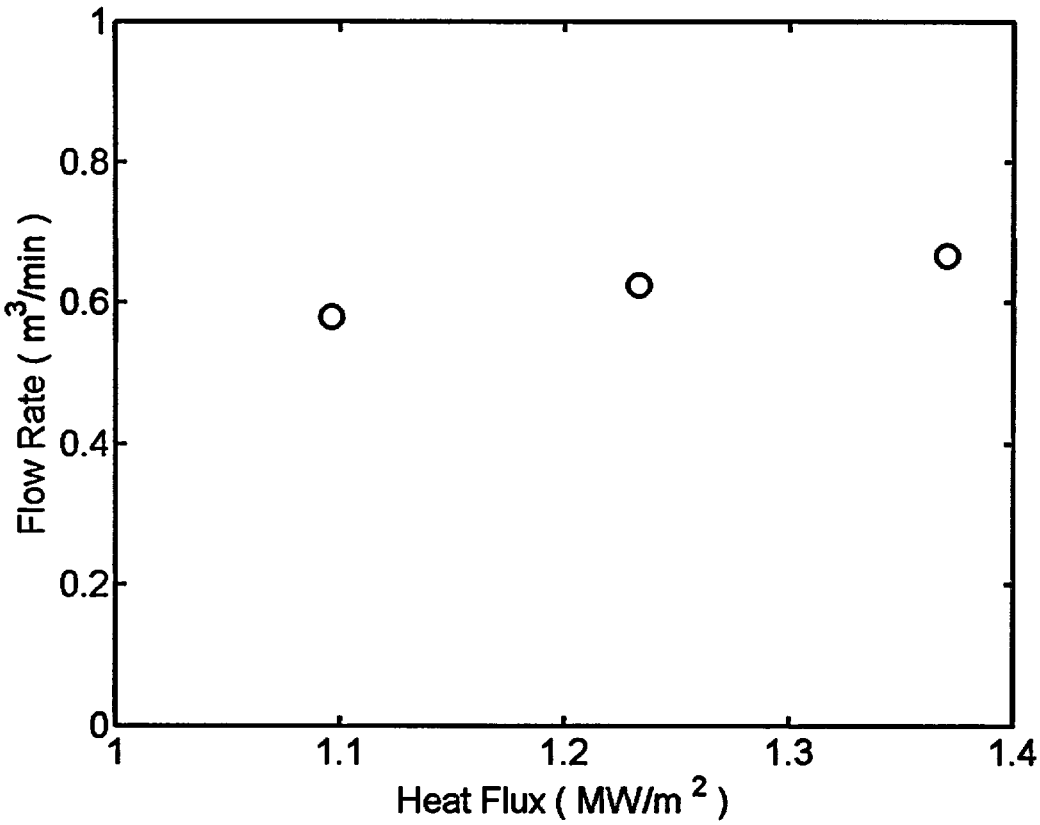

Figure A21.4. Flow rate vs. heat fluxes.

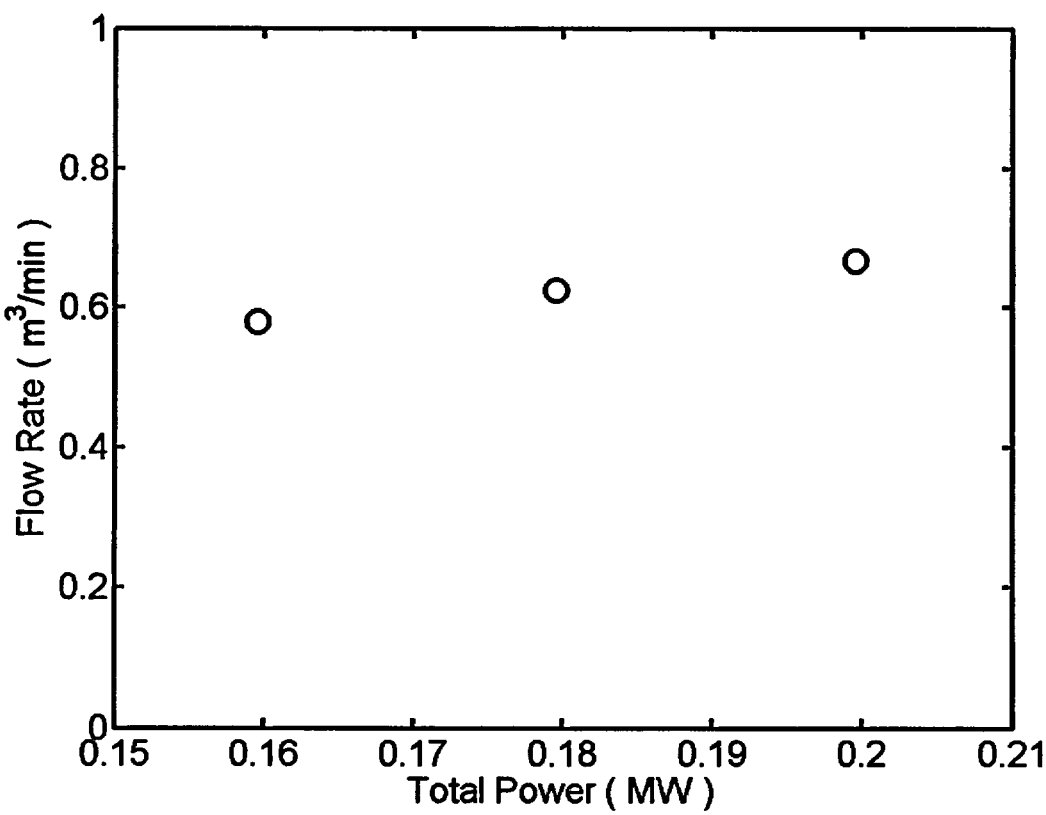

Figure A21.5. Flow rate vs. total input power.

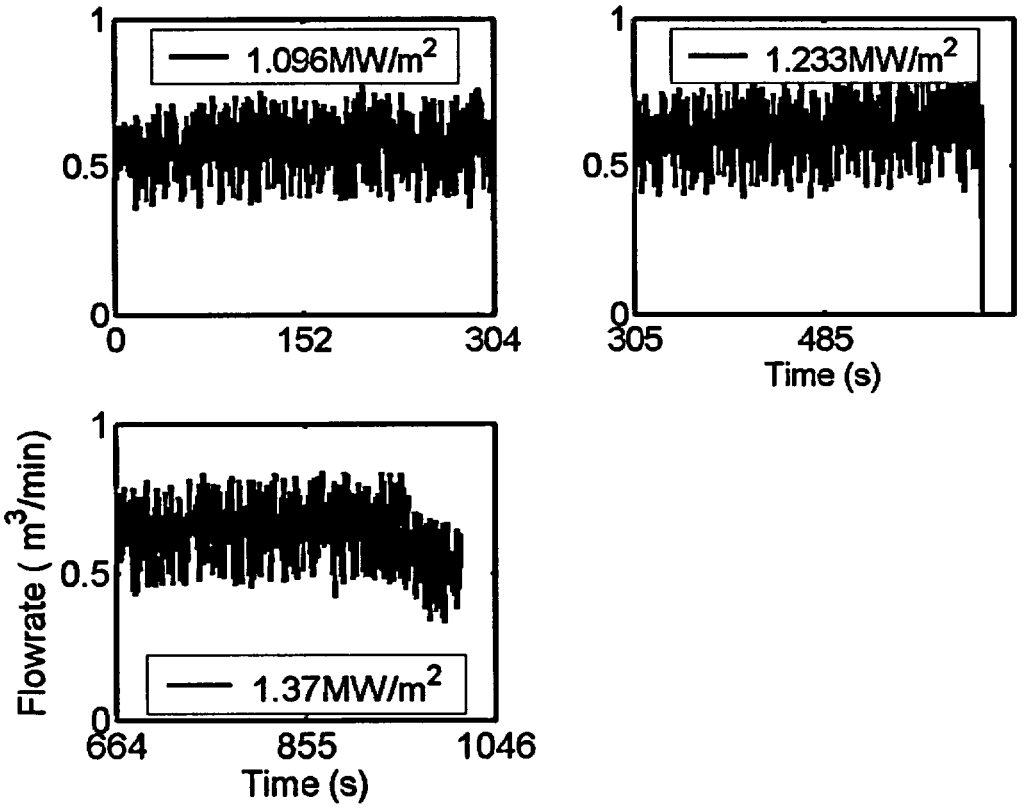

Figure A21.6. Flow rates at different heat fluxes.

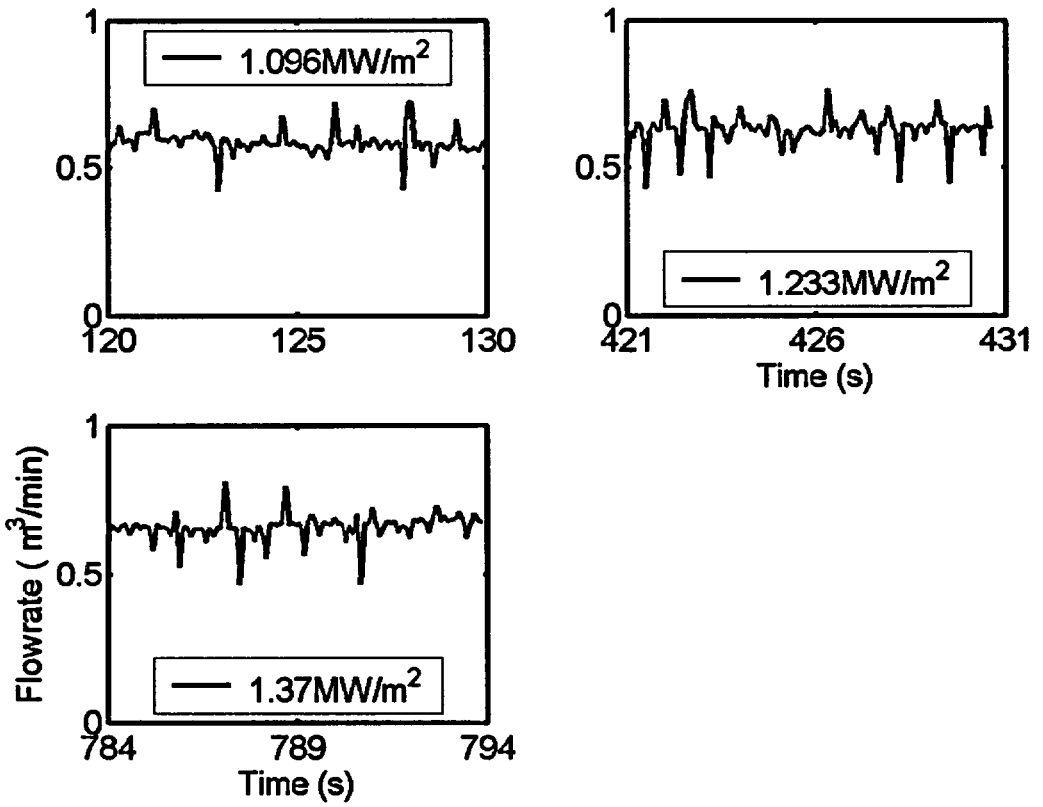

Figure A21.7. Flow rates at different heat fluxes at selected time intervals.

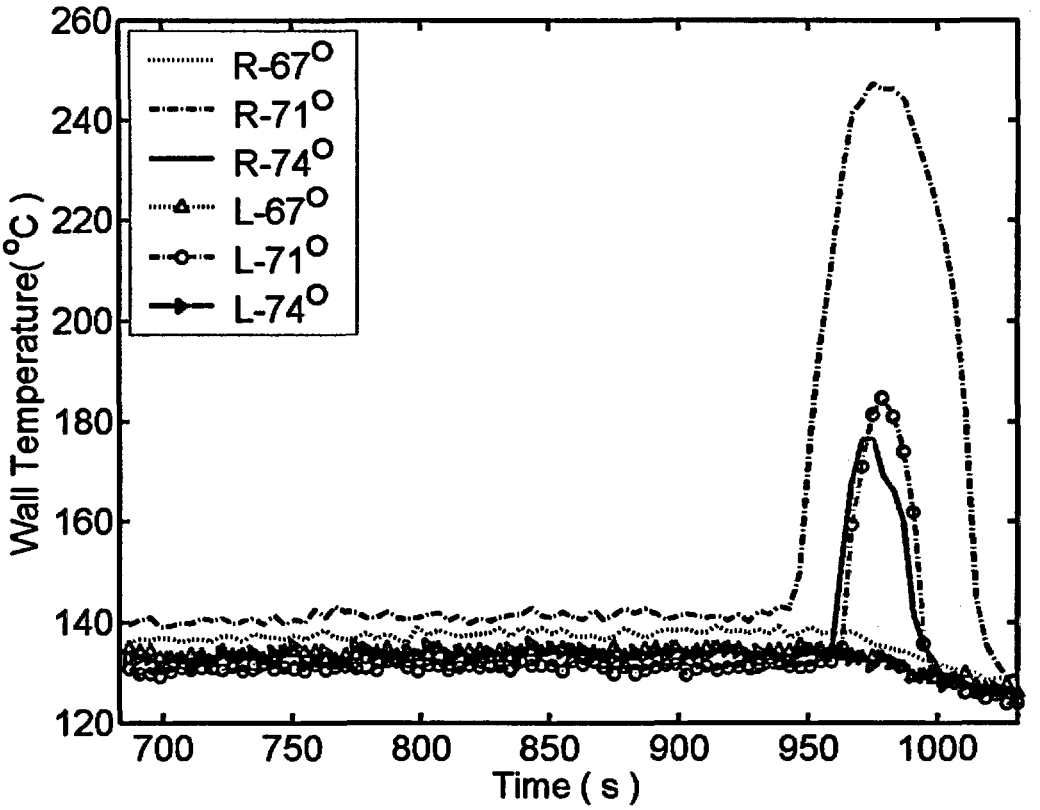

Figure A21.8. Temperature history at CHF.

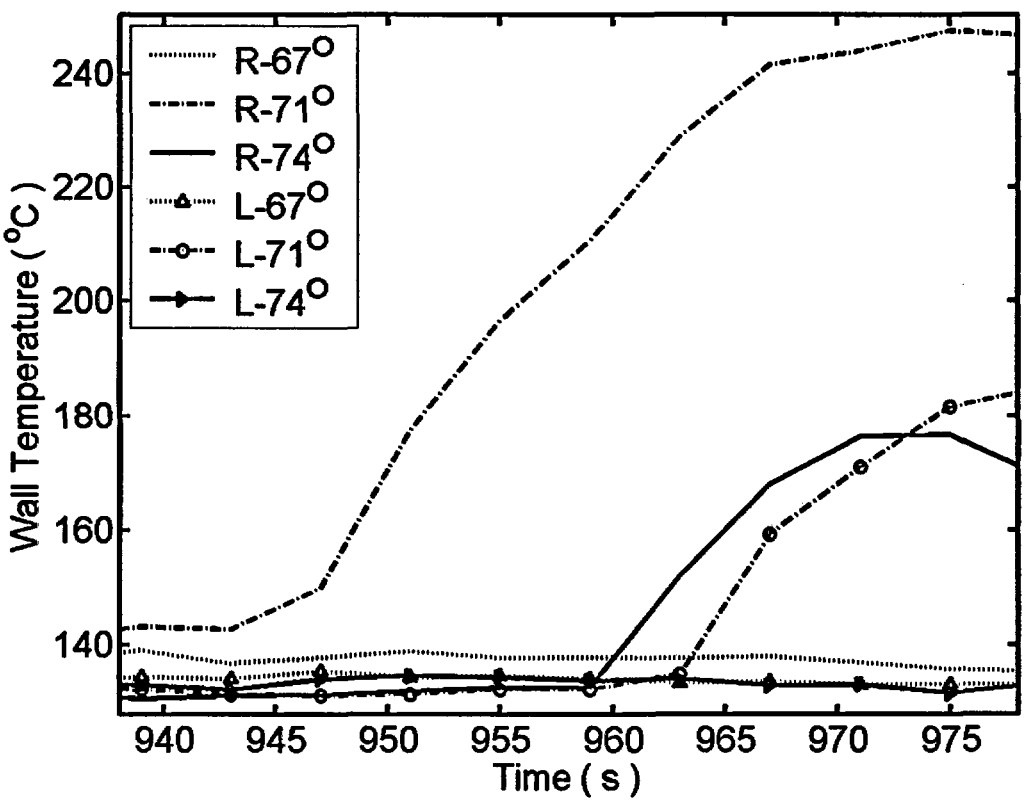

Figure A21.9. Temperature history at CHF in detail.

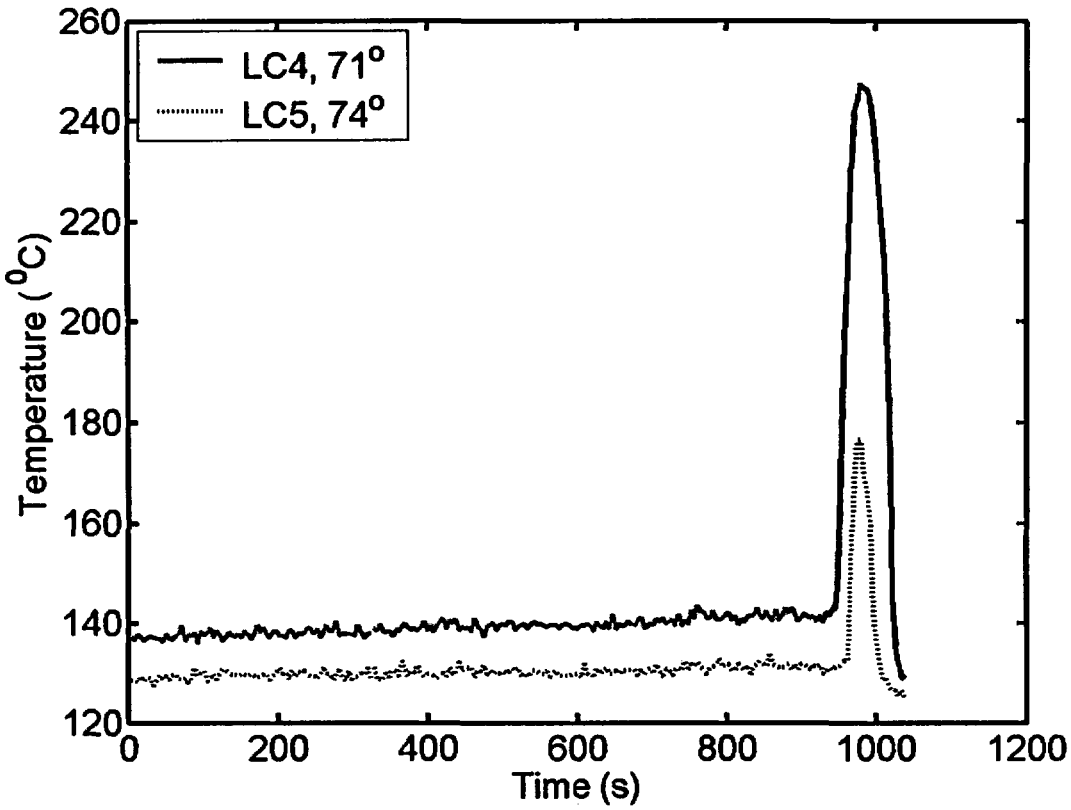

Figure A21.10. Wall temperature history measured by two thermocouples LC4 and LC5.

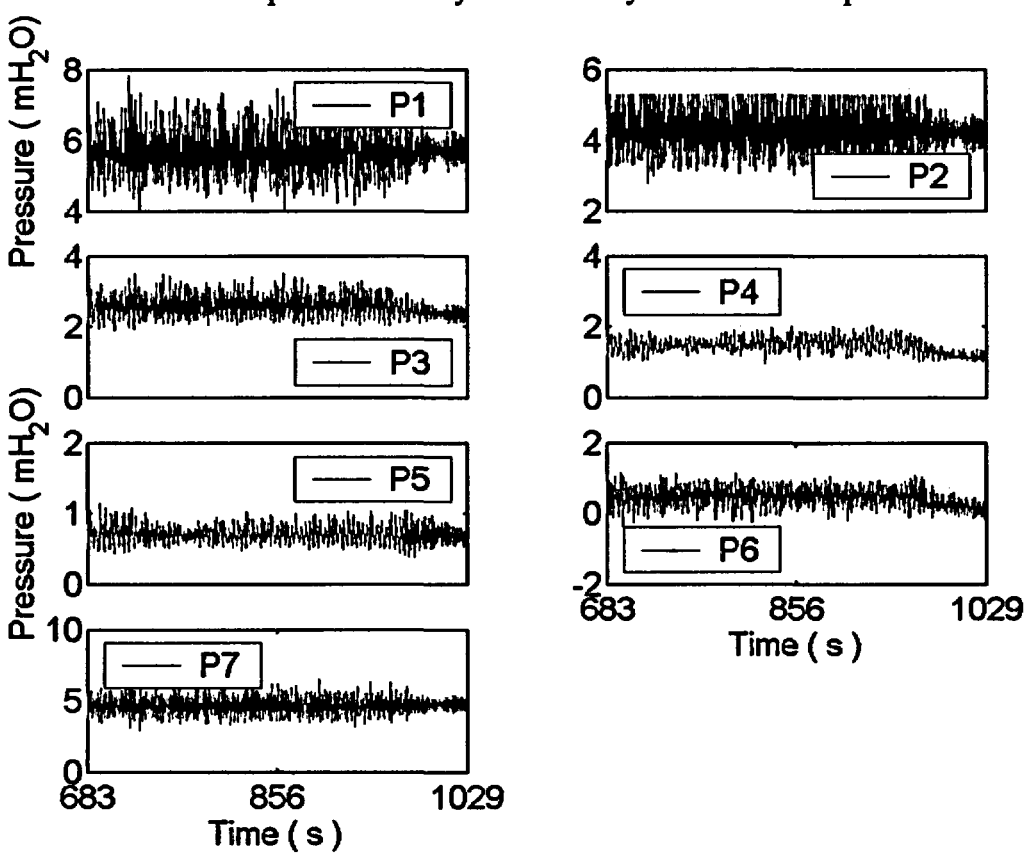

Figure A21.11. Pressure transducer data at q = 1.370 MW/m^2.

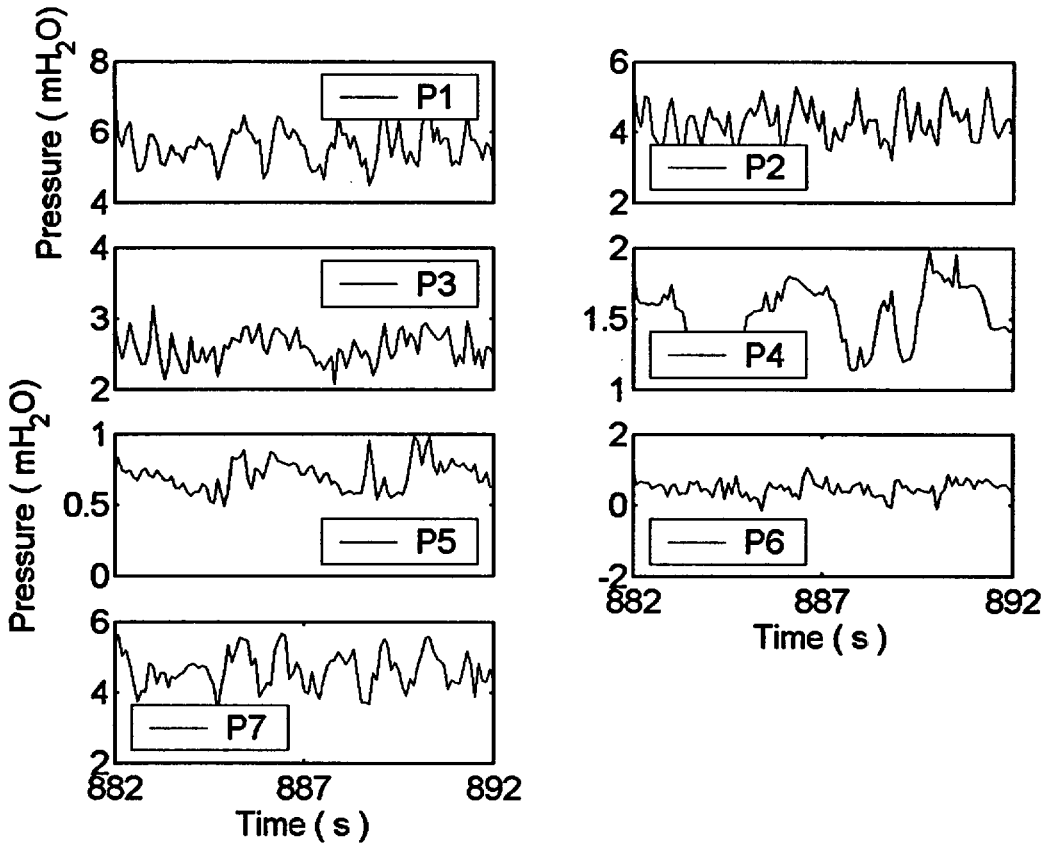

Figure A21.12. Pressure data in detail at q = 1.370 MW/m^2.

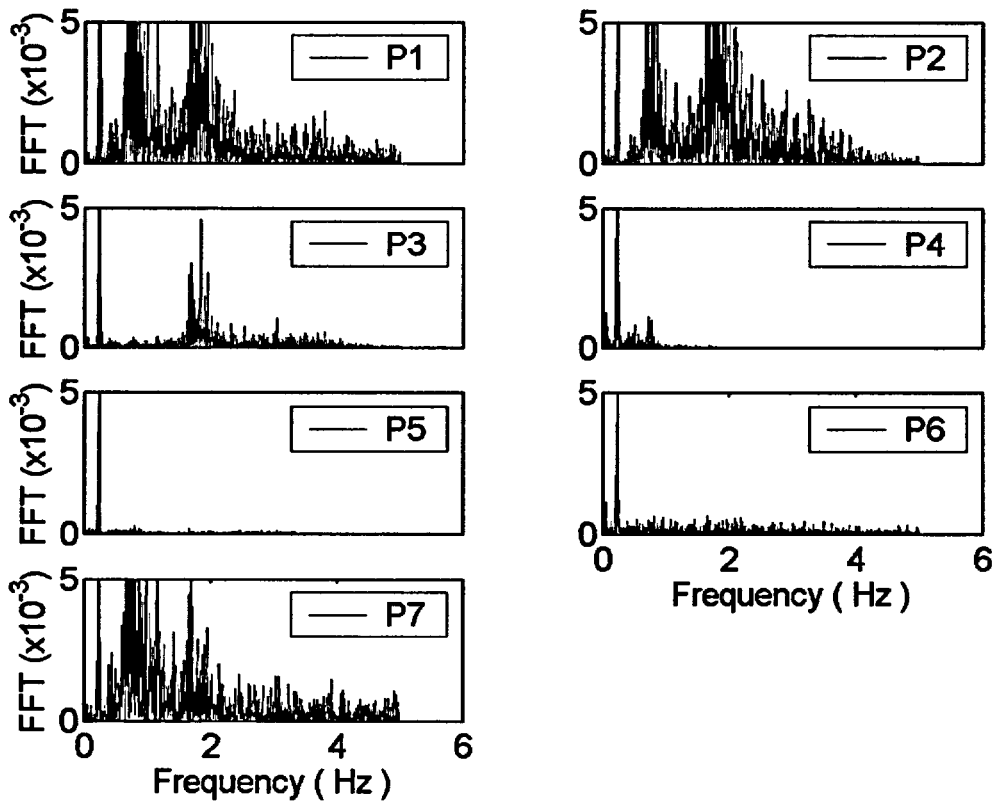

Figure A21.13. FFT of pressure time series at q = 1.370 MW/m^2.

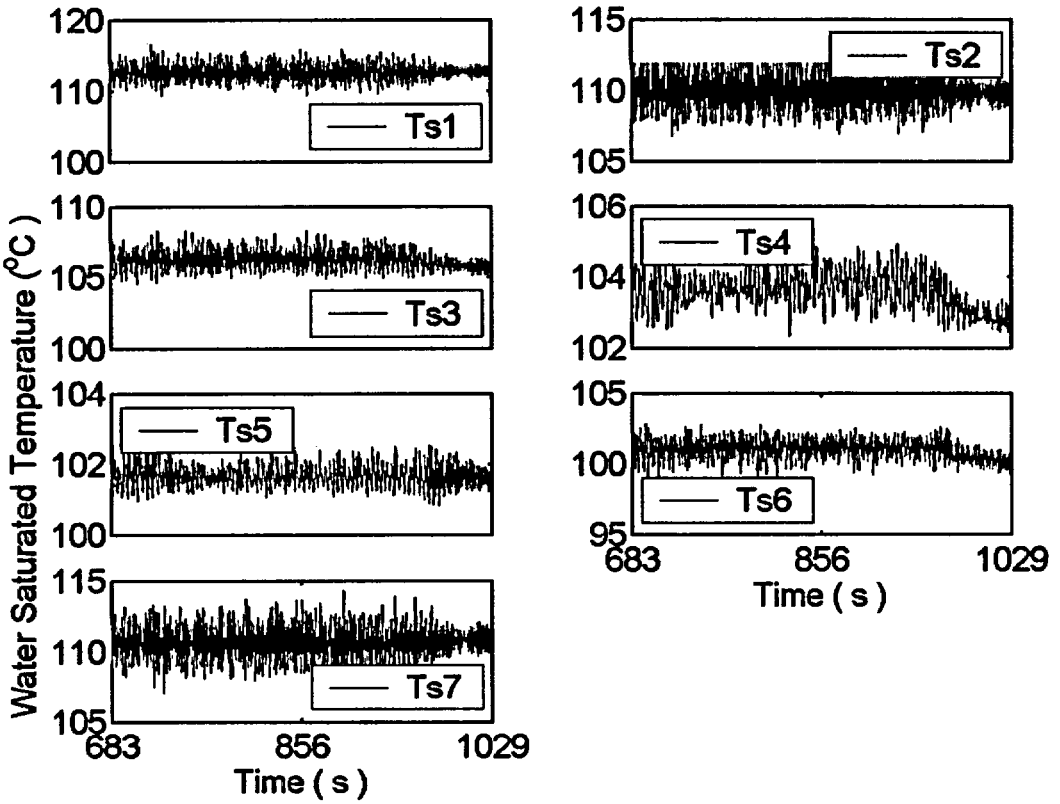

Figure A21.14. Water saturation temperature calculated from local pressure data at q = 1.370 MW/m^2.

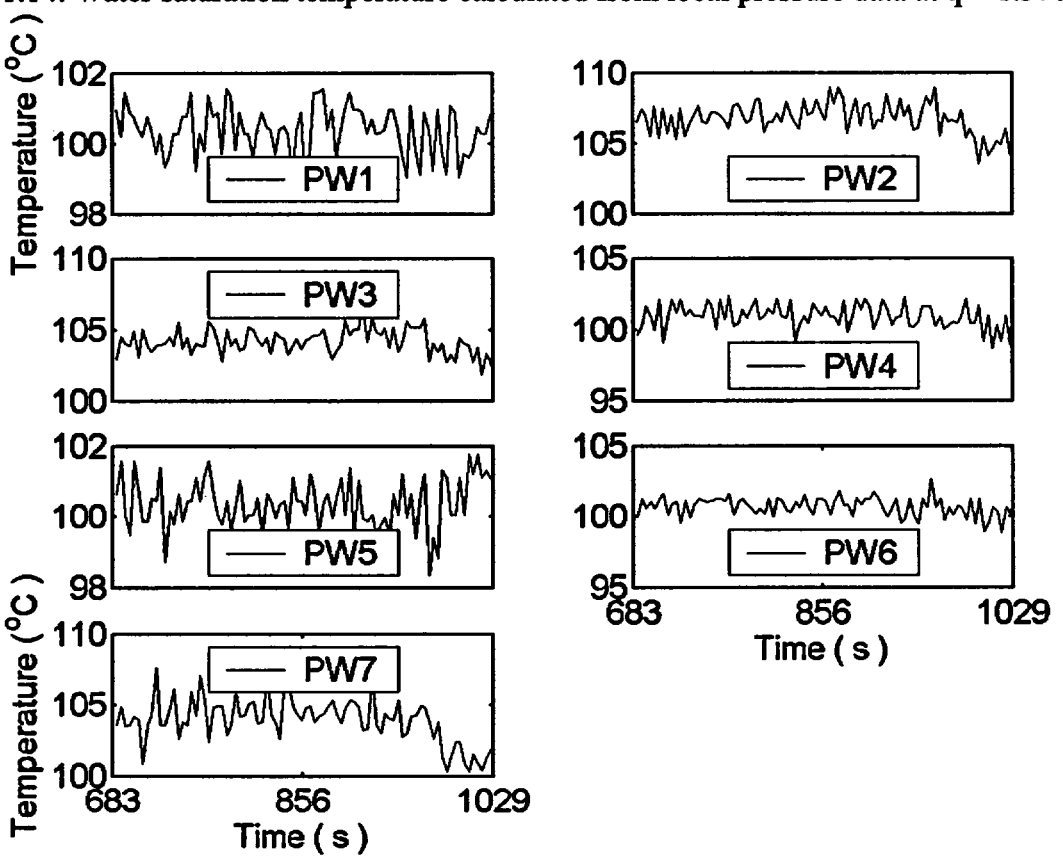

Figure A21.15. Water temperature measured at location of pressure transducer at q = 1.370 MW/m^2.

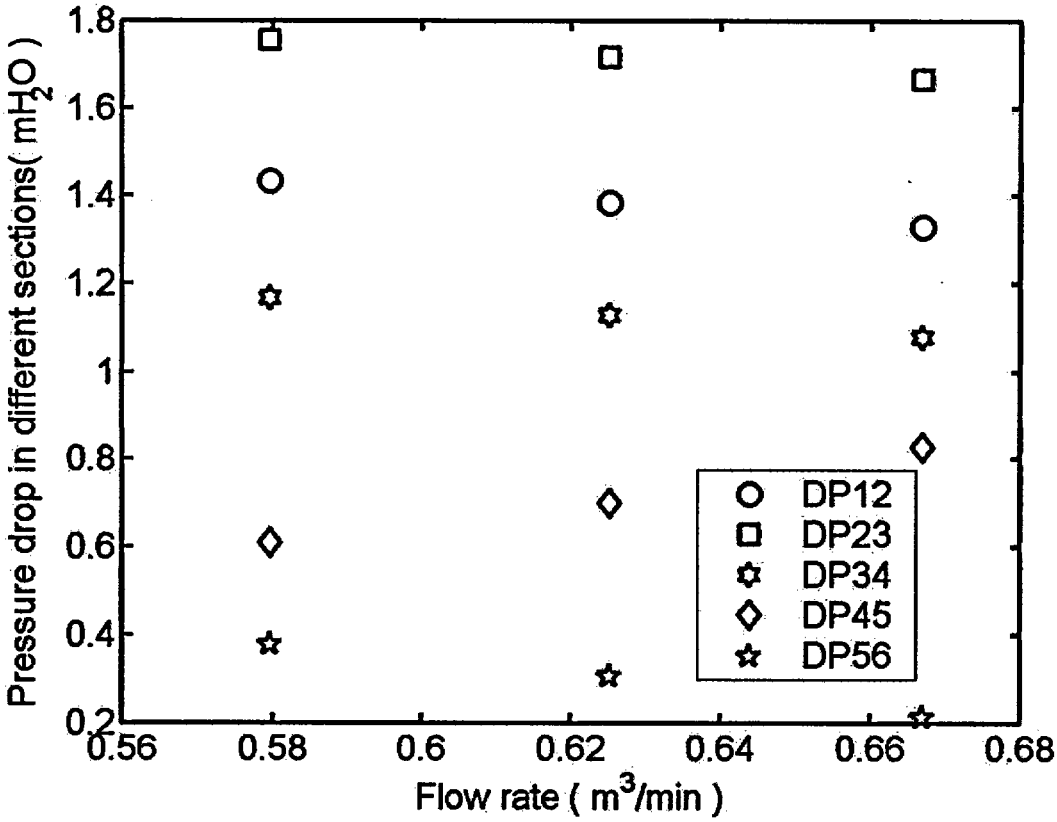

Figure A21.16. Pressure drop vs. flow rate at different heat fluxes.

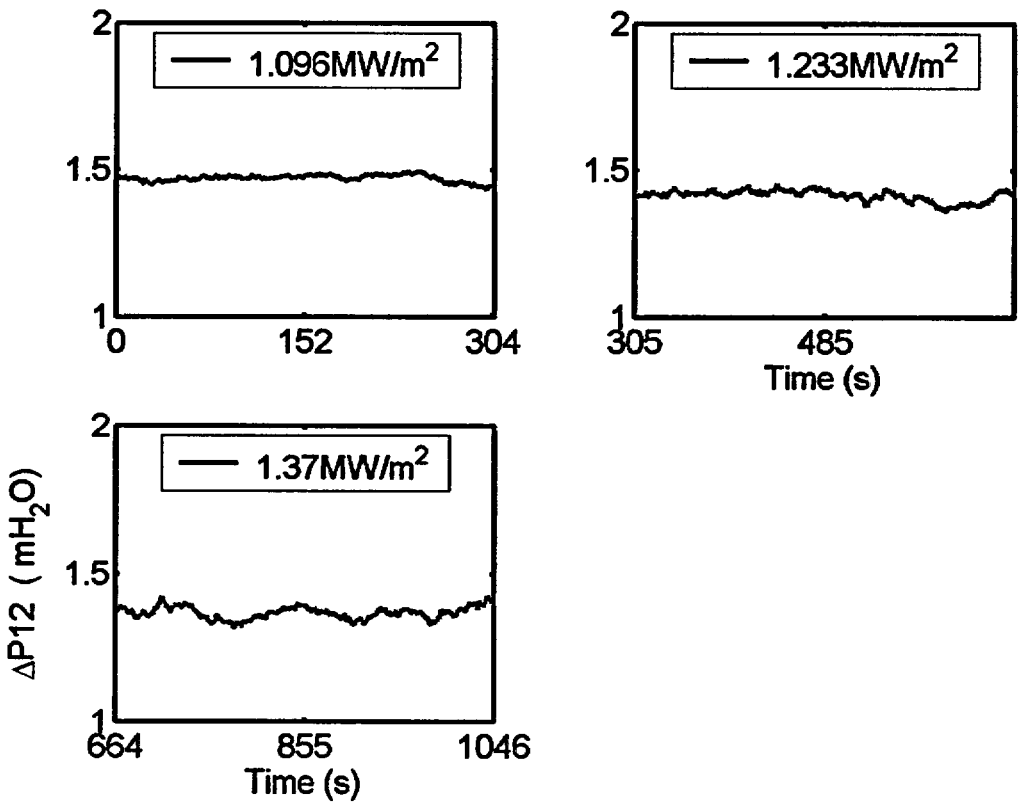

Figure A21.17. Differential Pressure ΔP12 at different heat fluxes.

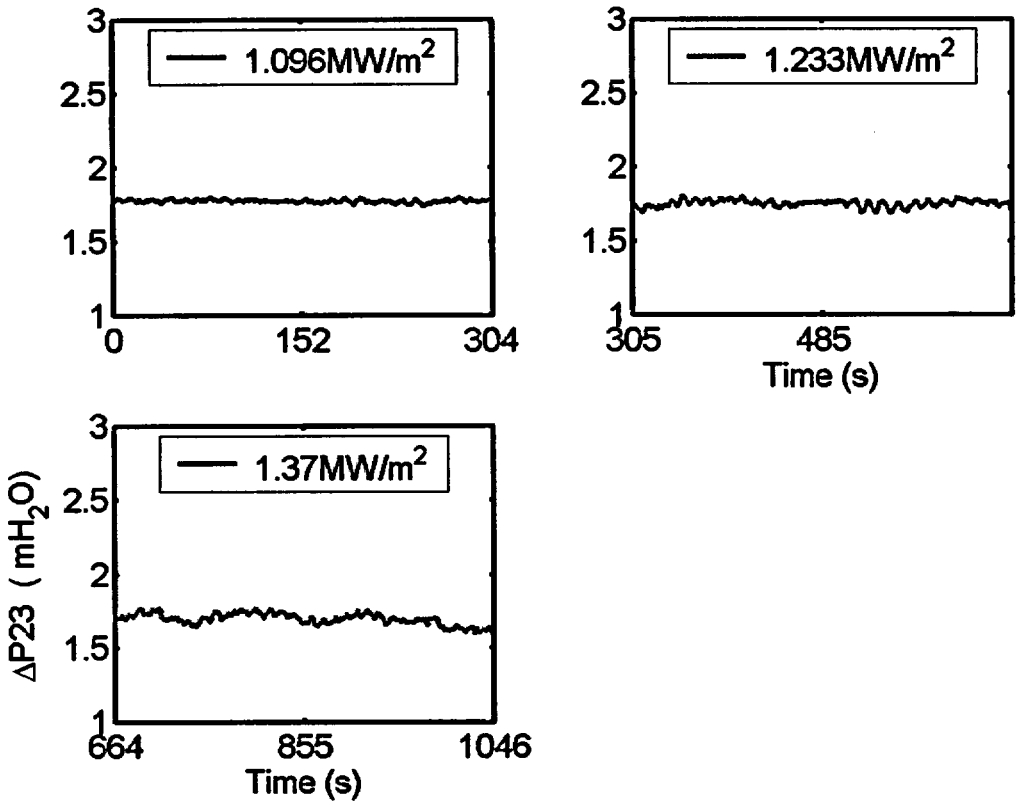

Figure A21.18. Differential Pressure ΔP23 at different heat fluxes.

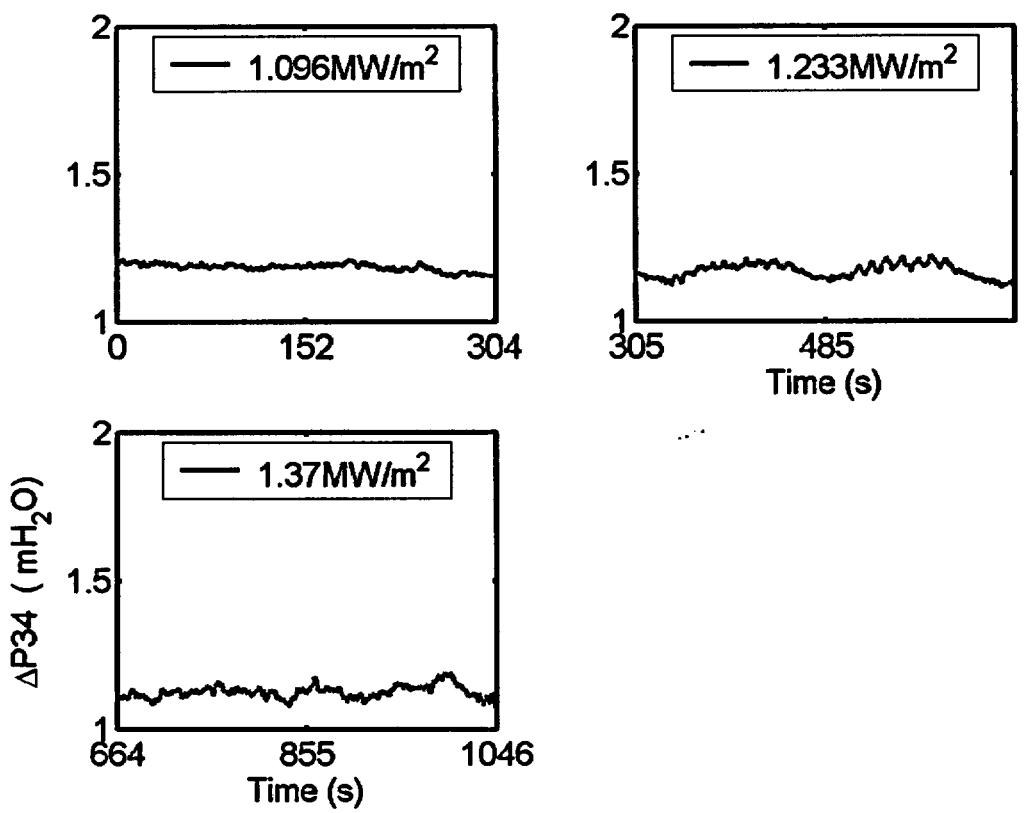

Figure A21.19. Differential Pressure ΔP34 at different heat fluxes.

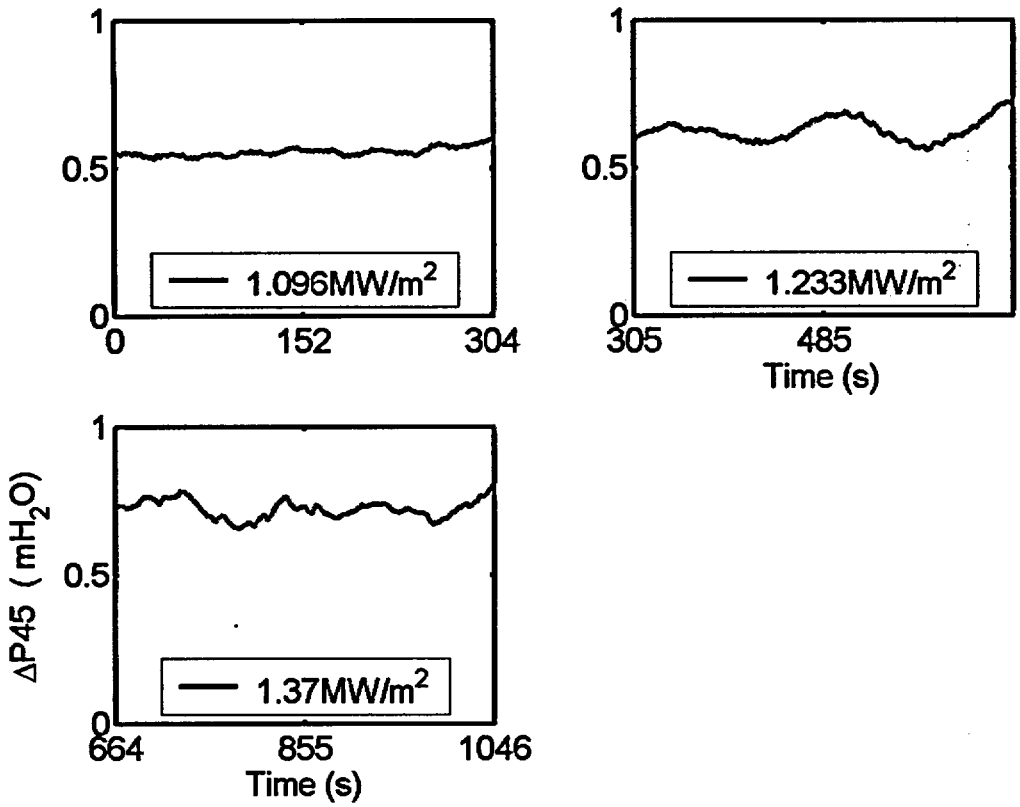

Figure A21.20. Differential Pressure ΔP45 at different heat fluxes.

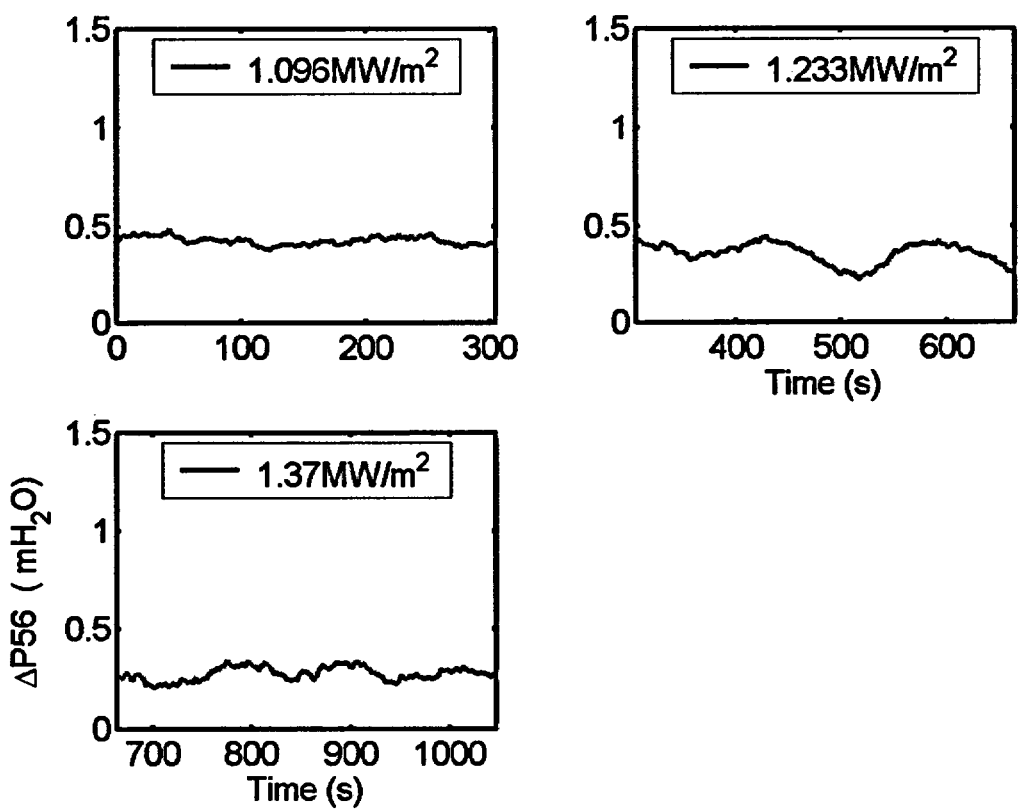

Figure A21.21. Differential Pressure ΔP56 at different heat fluxes.

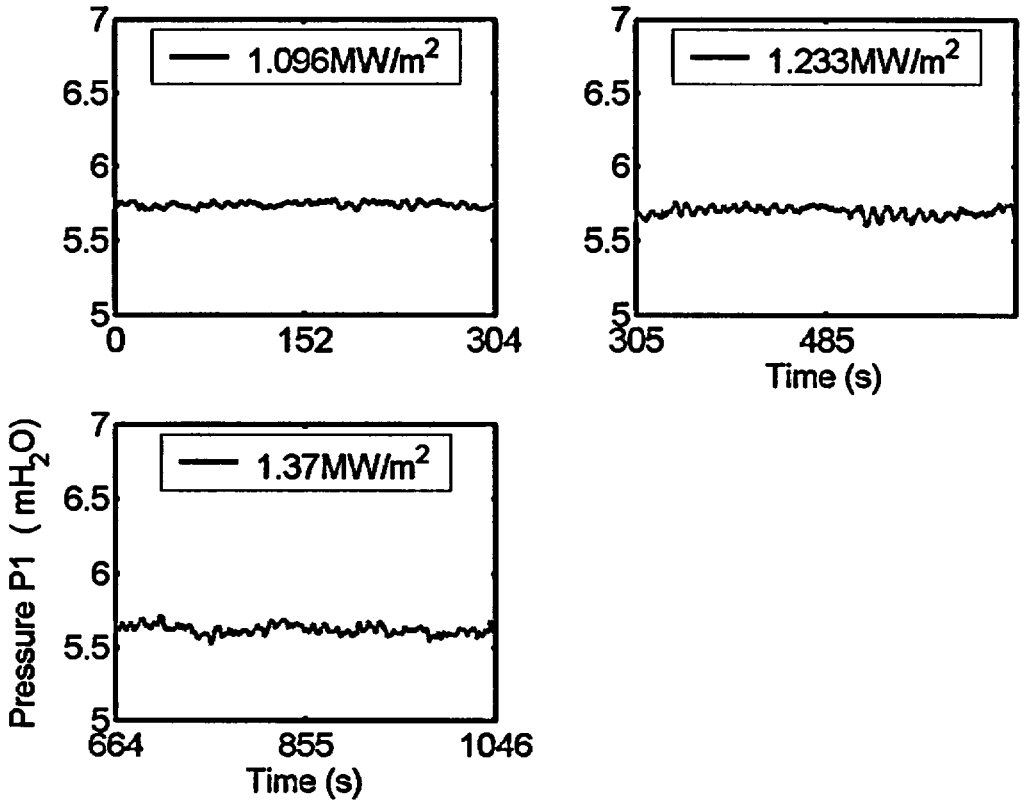

Figure A21.22. Pressure P1 at different heat fluxes.

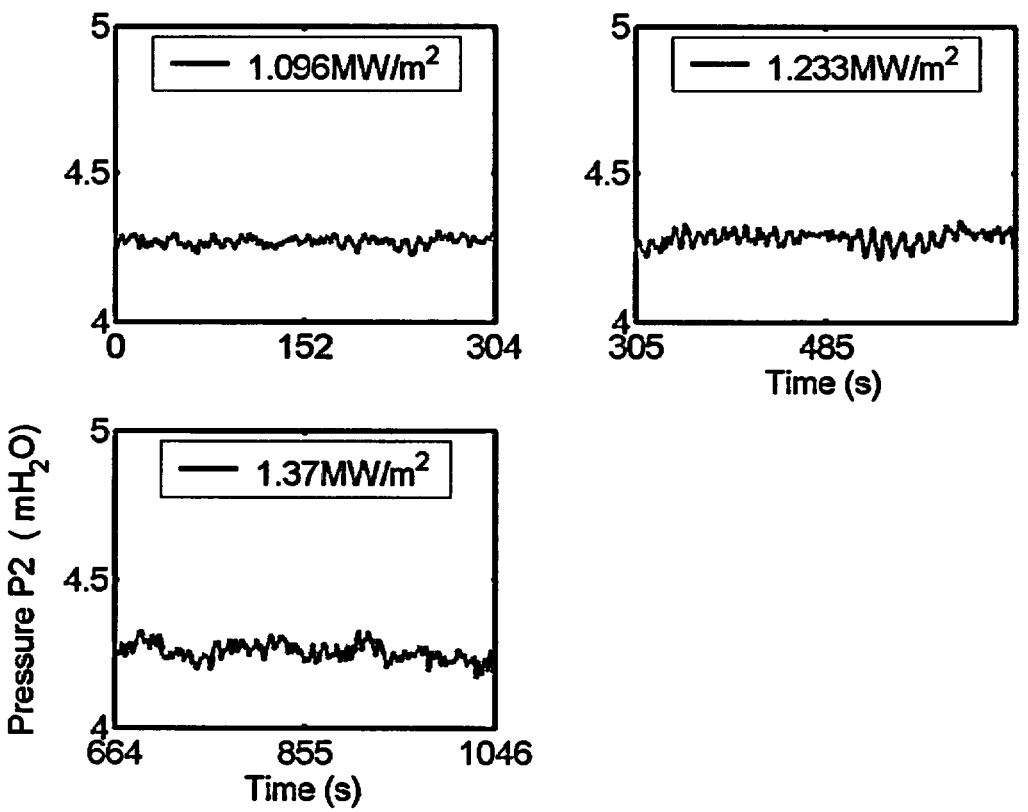

Figure A21.23. Pressure P2 at different heat fluxes.

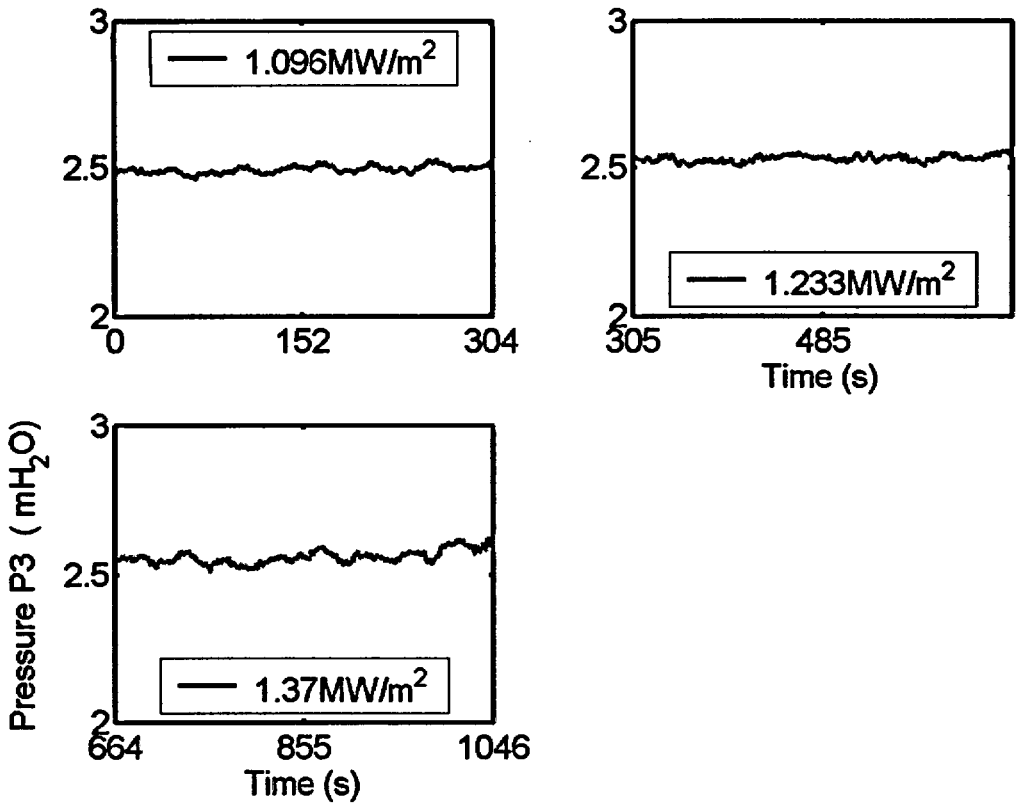

Figure A21.24. Pressure P3 at different heat fluxes.

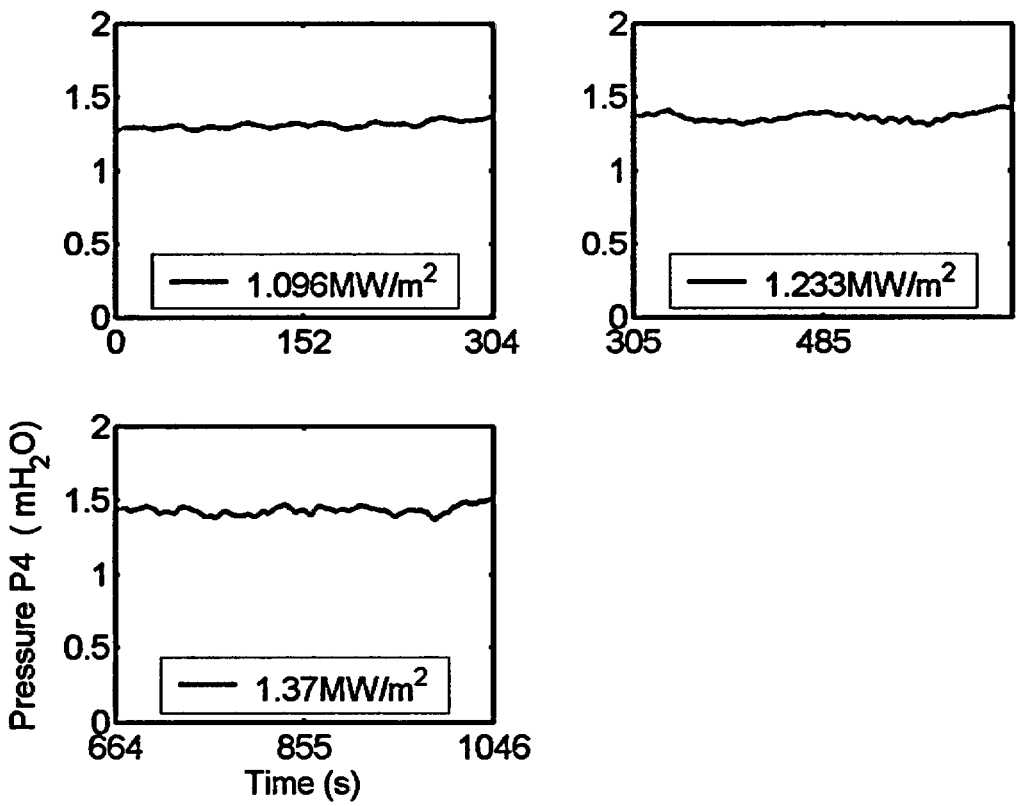

Figure A21.25. Pressure P4 at different heat fluxes.

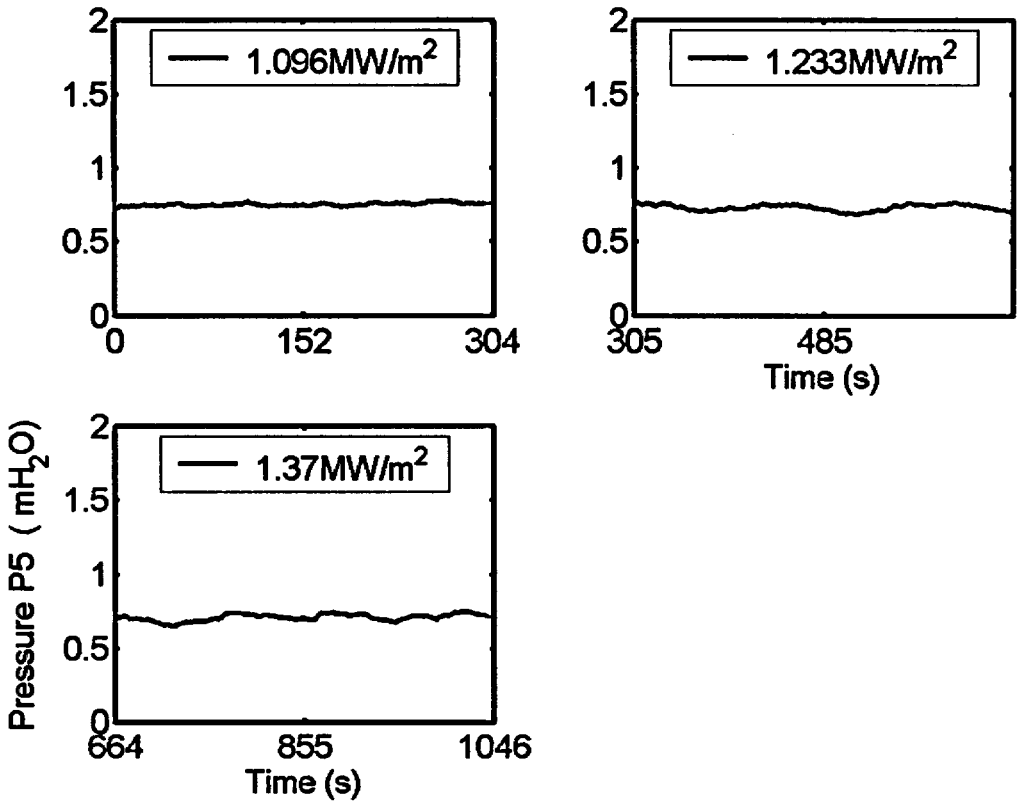

Figure A21.26. Pressure P5 at different heat fluxes.

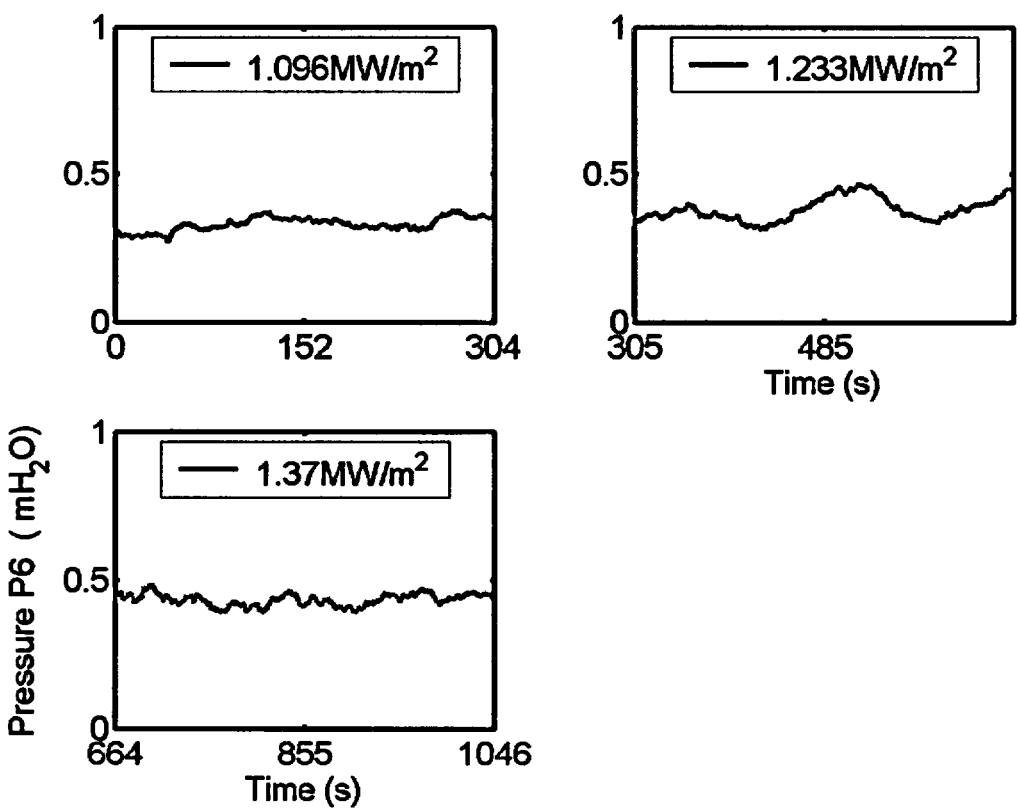

Figure A21.27. Pressure P6 at different heat fluxes.

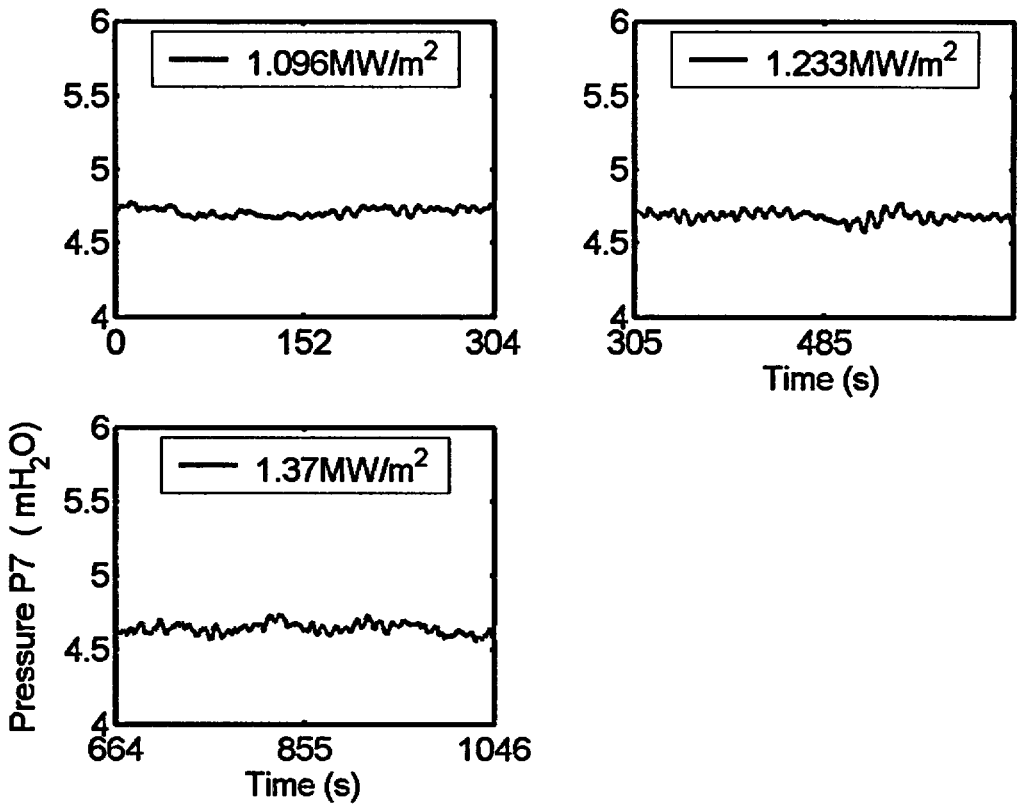

Figure A21.28. Pressure P7 at different heat fluxes.

ID #22

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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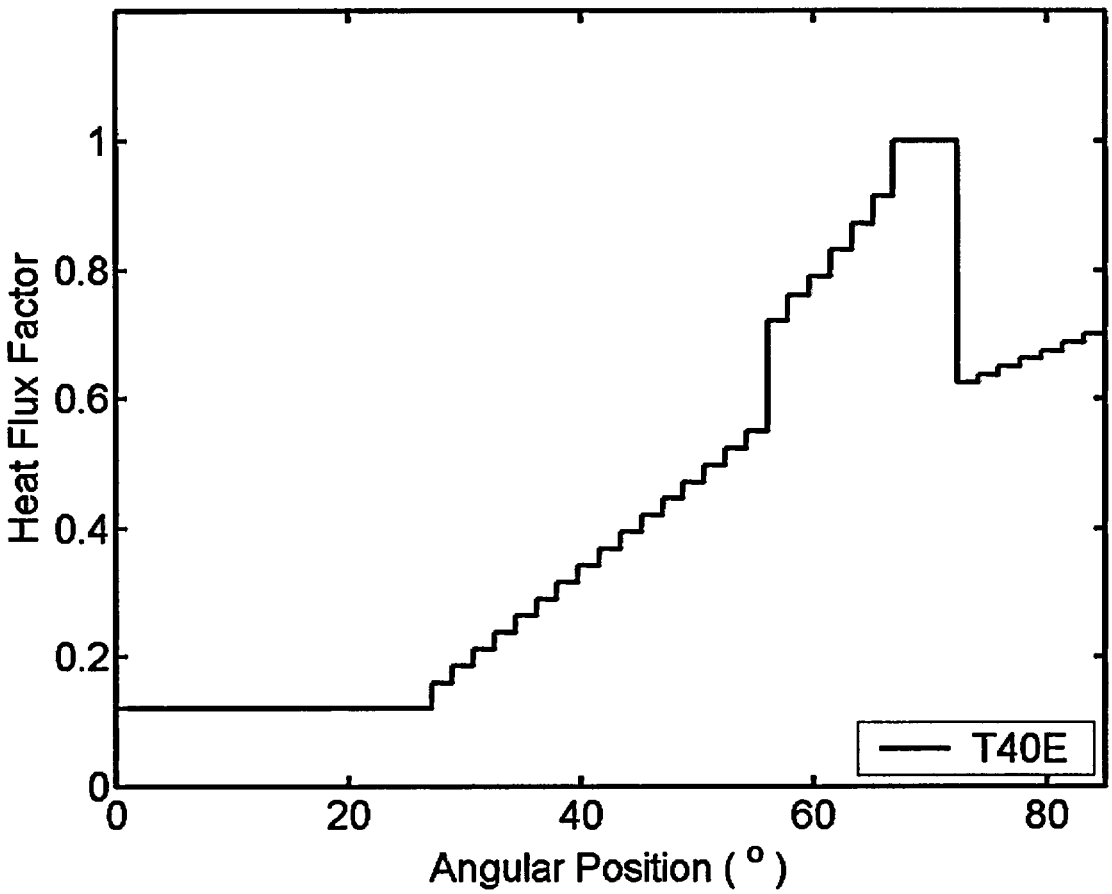

Figure A22.1. Power shape.

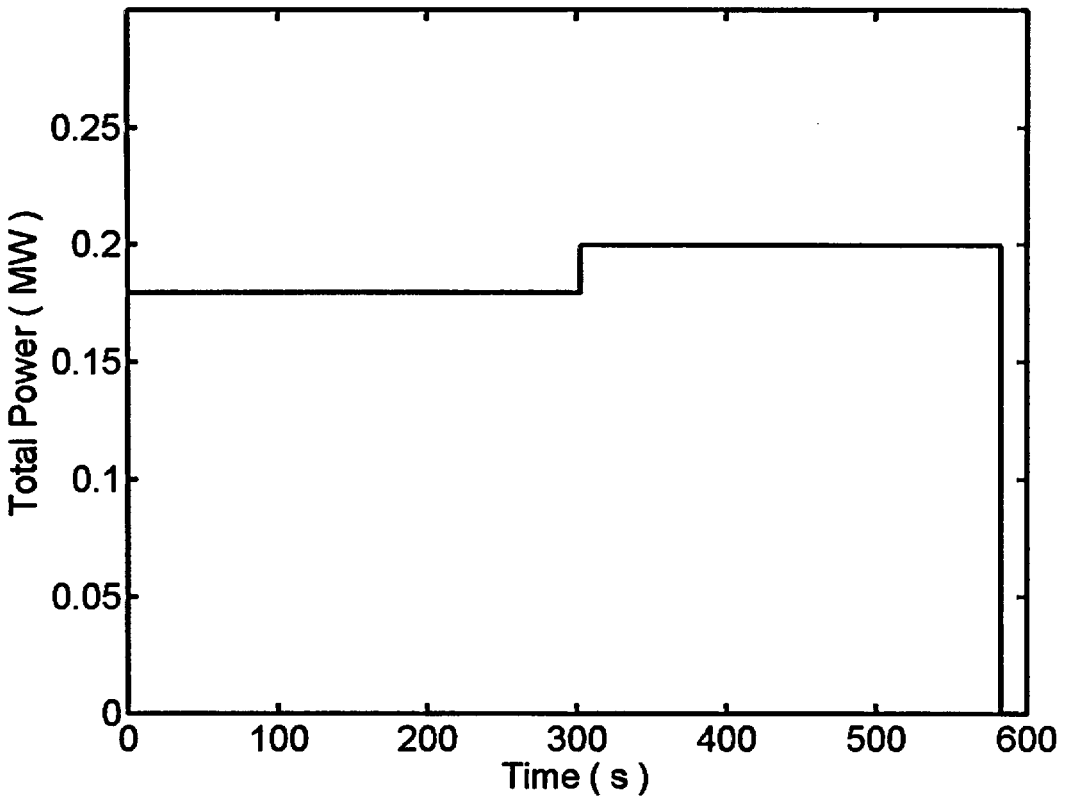

Figure A22.2. Total input power history.

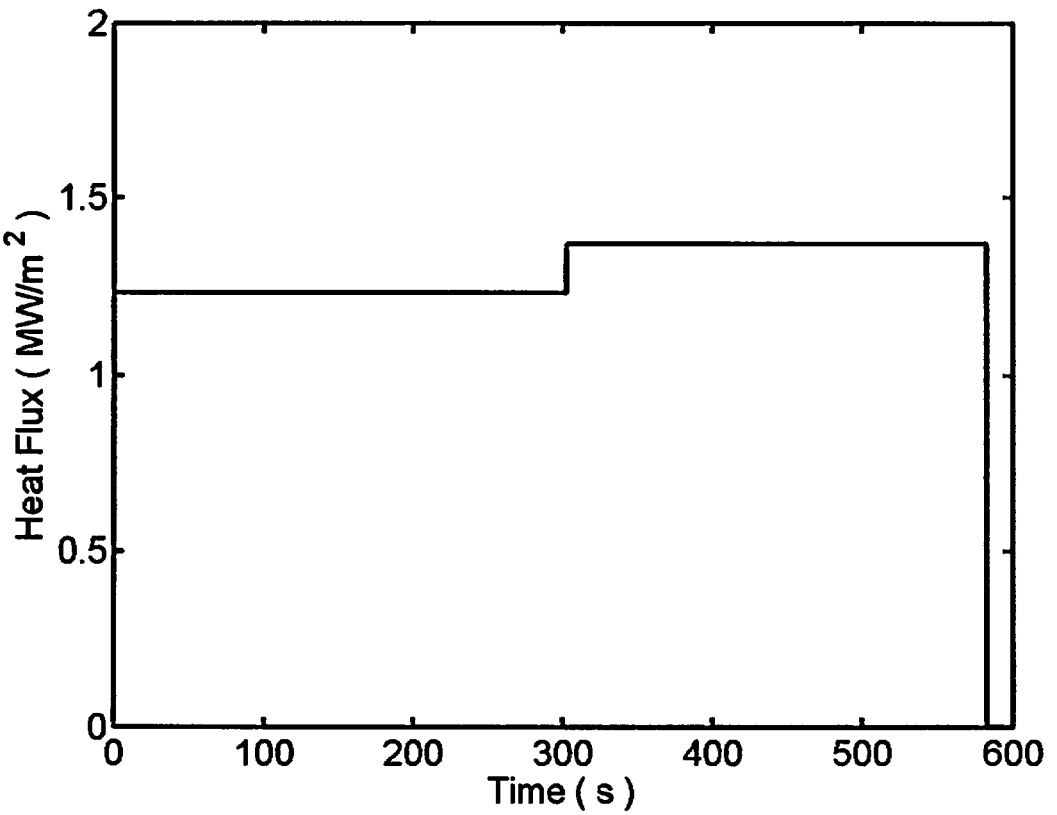

Figure A22.3. Heat flux history.

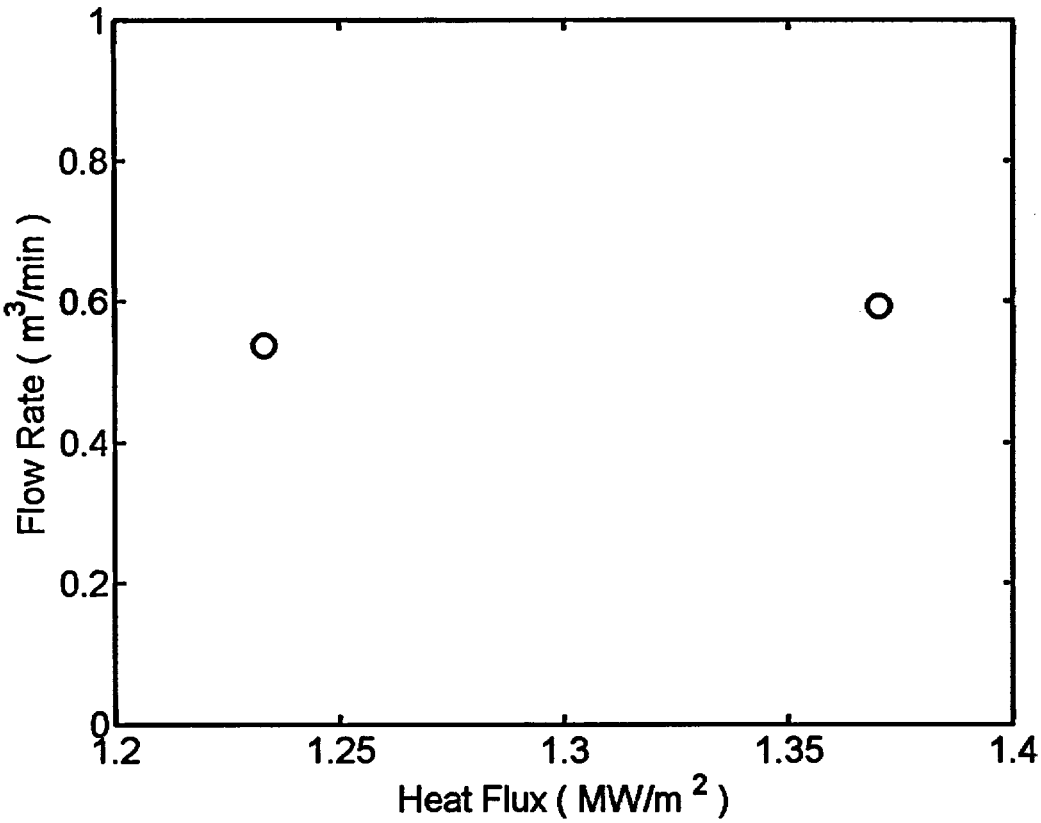

Figure A22.4. Flow rate vs. heat fluxes.

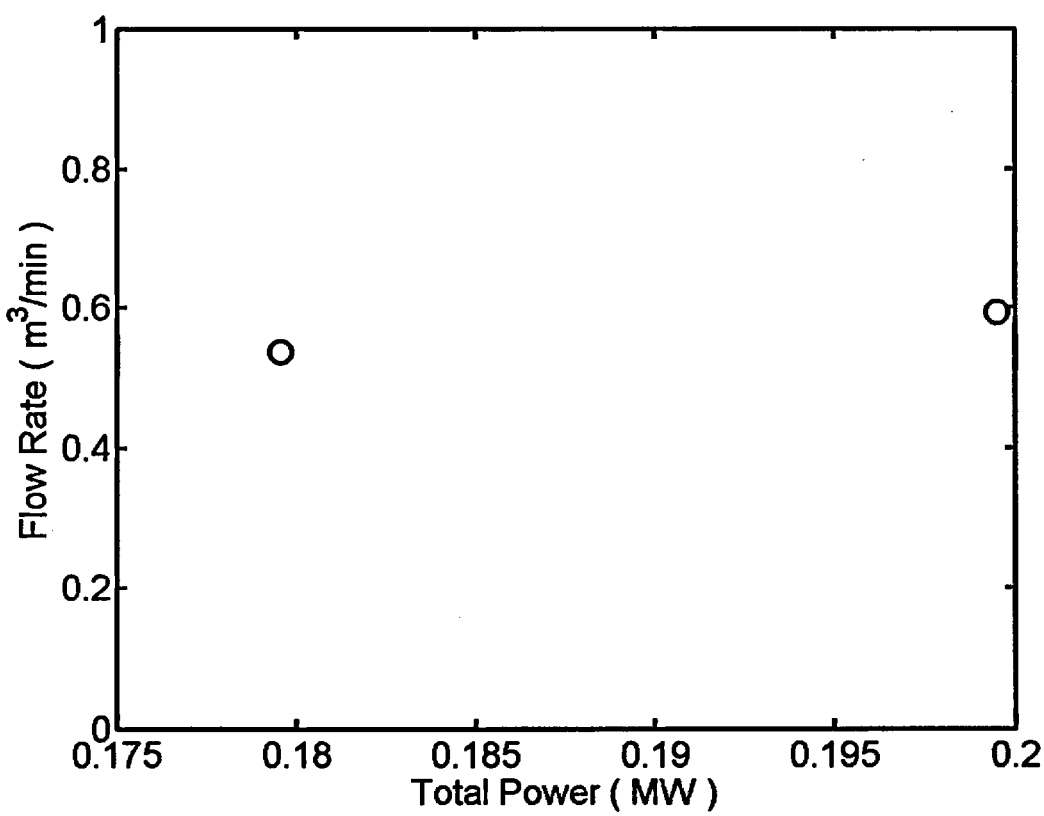

Figure A22.5. Flow rate vs. total input power.

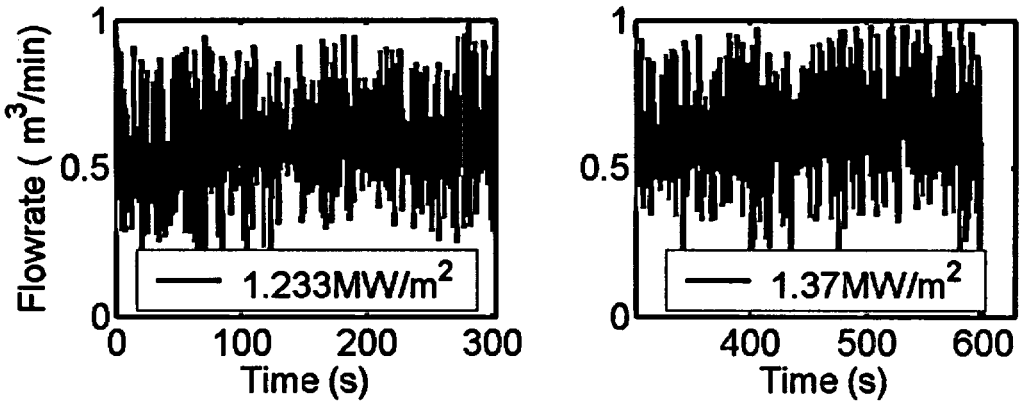

Figure A22.6. Flow rates at different heat fluxes.

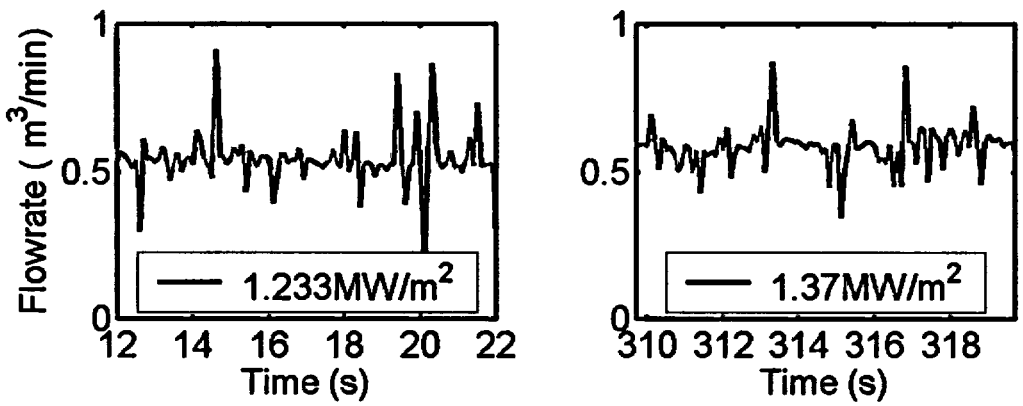

Figure A22.7. Flow rates at difference heat fluxes and selected time intervals.

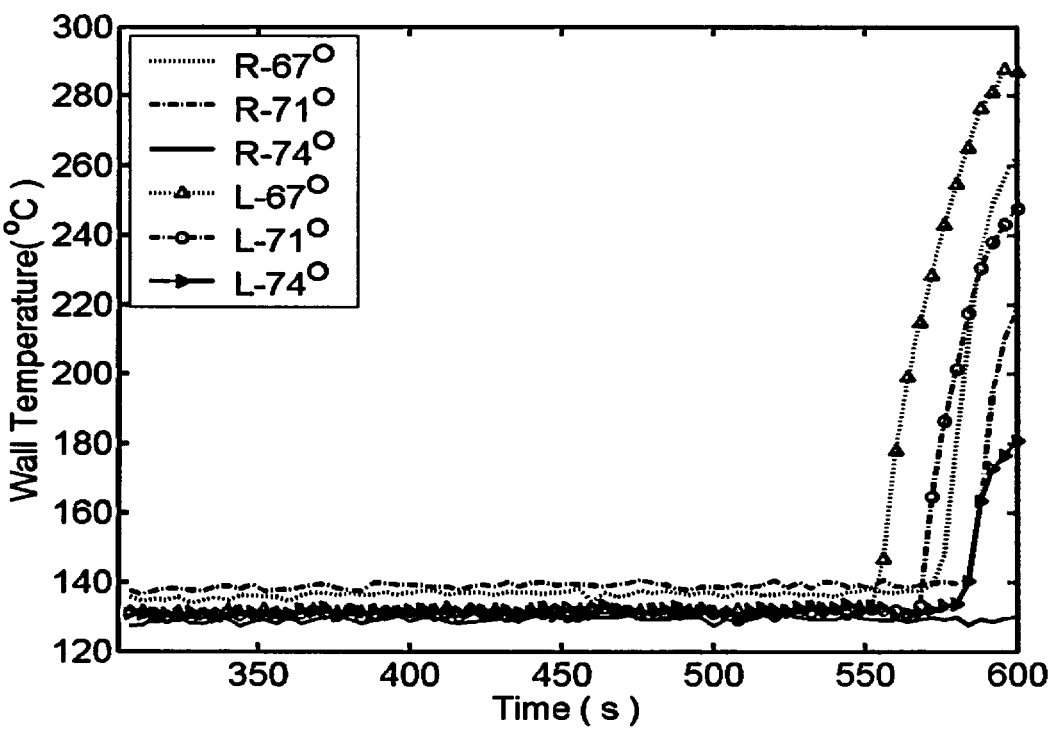

Figure A22.8. Temperature history at CHF.

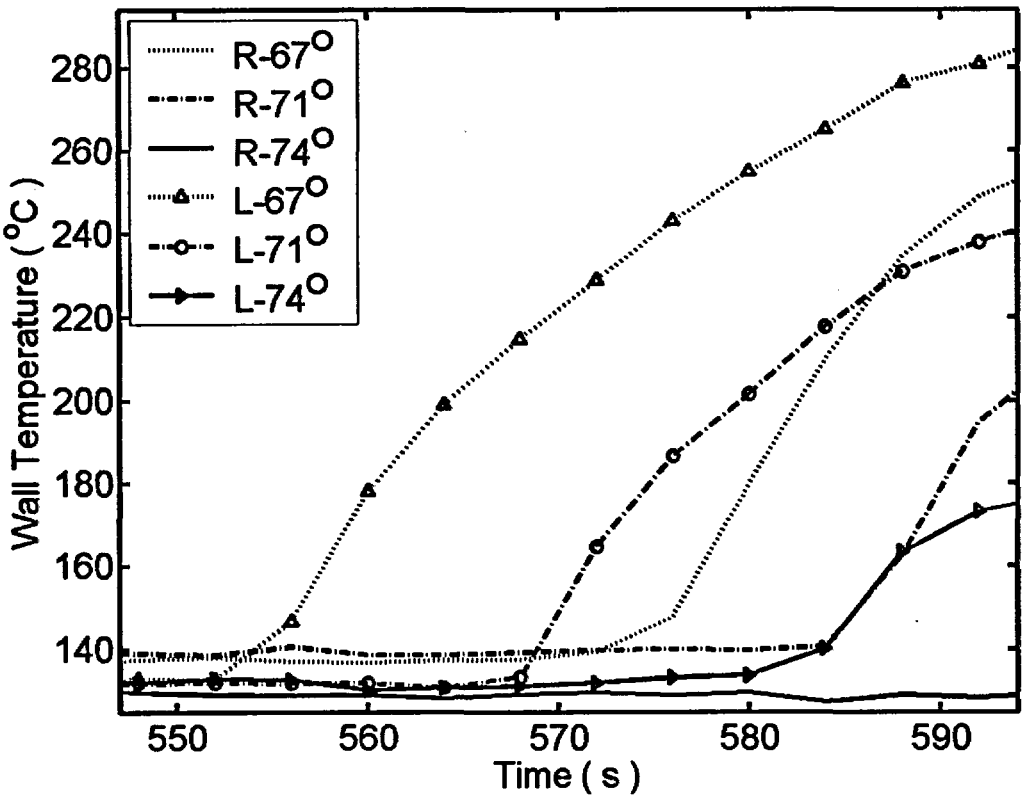

Figure A22.9. Temperature history at CHF in detail.

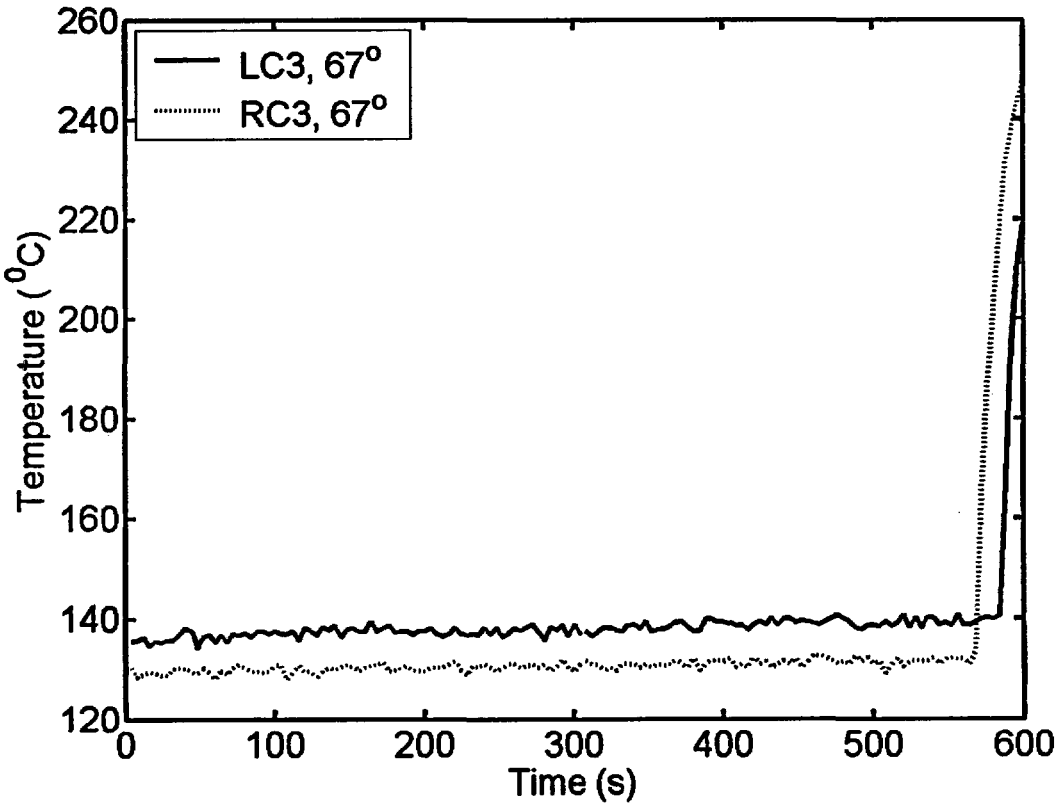

Figure A22.10 Wall temperature history measured by two thermocouples LC3 and RC3.

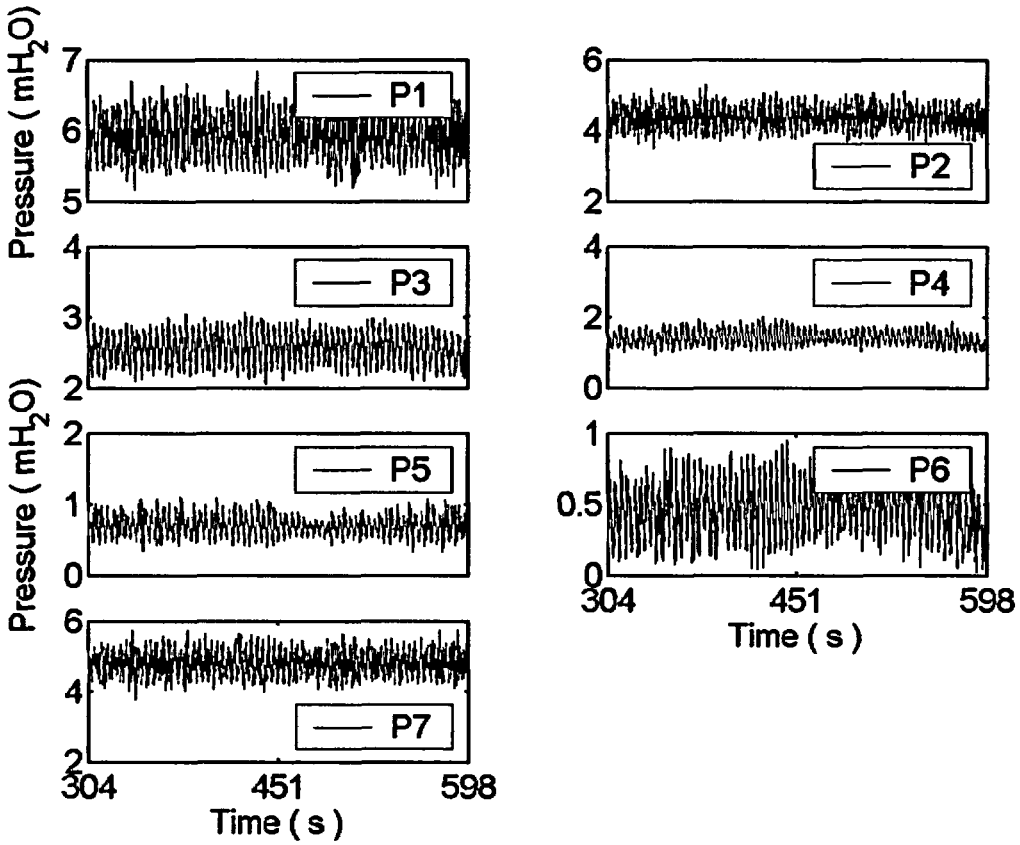

Figure A22.11. Pressure transducer data at q = 1.370 MW/m^2.

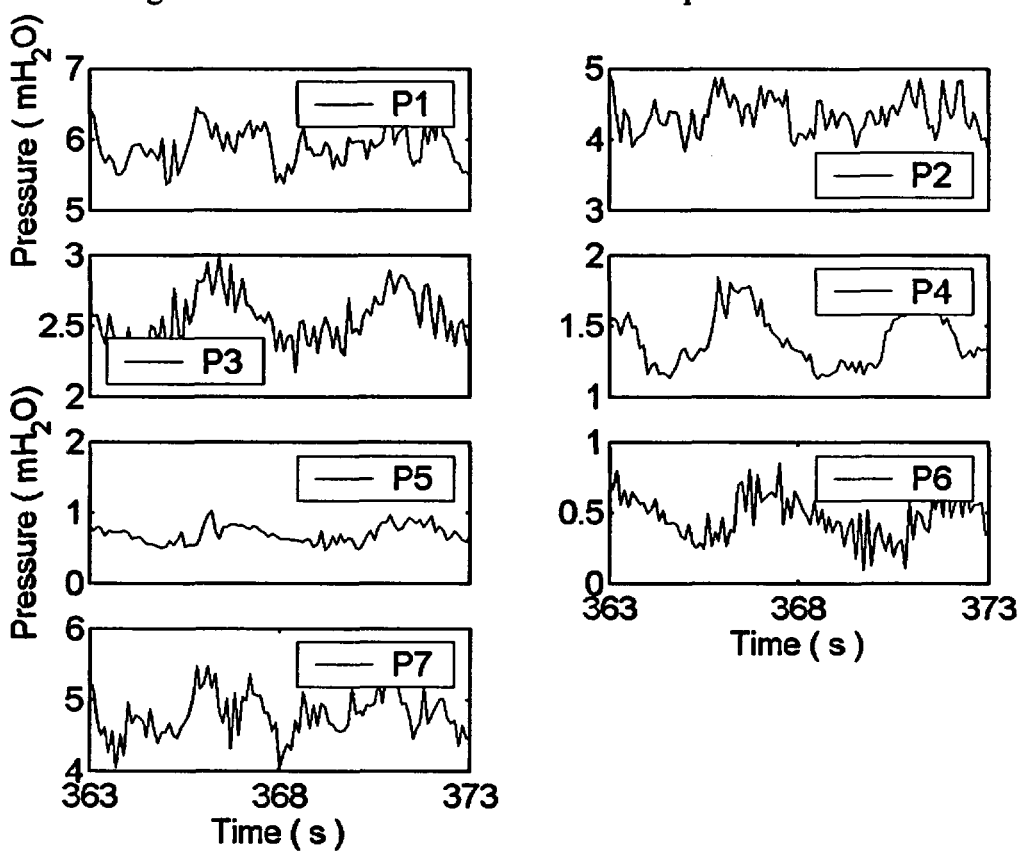

Figure A22.12. Pressure data in detail at q = 1.370 MW/m^2.

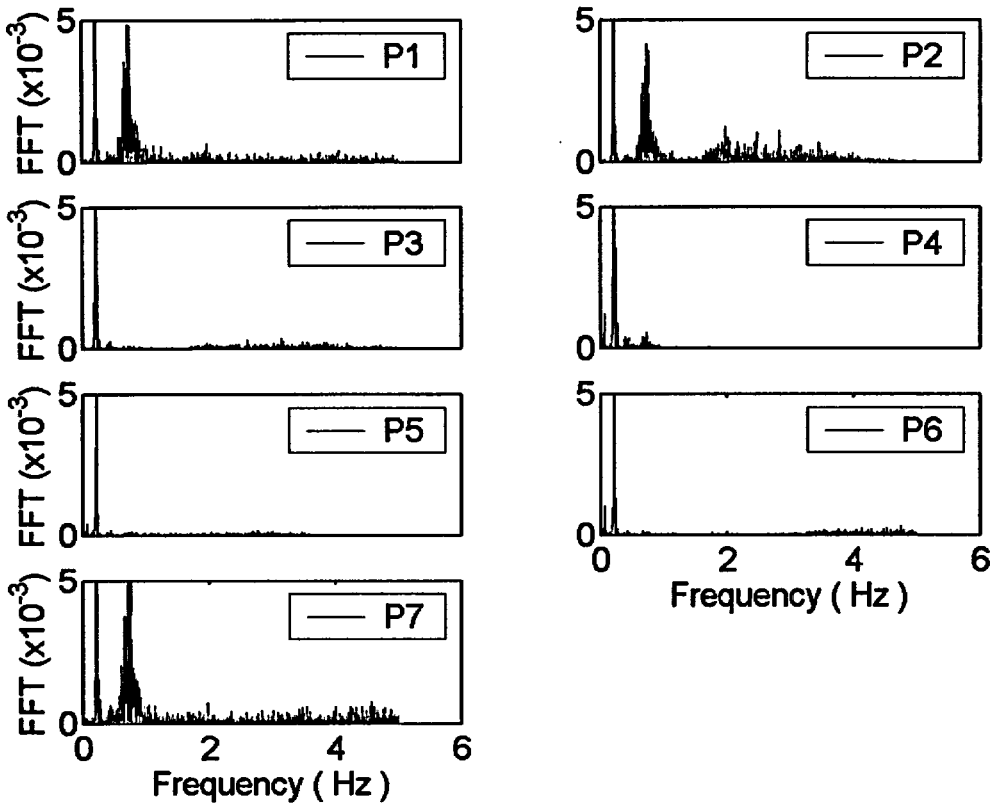

Figure A22.13. Pressure FFT at q = 1.370 MW/m^2.

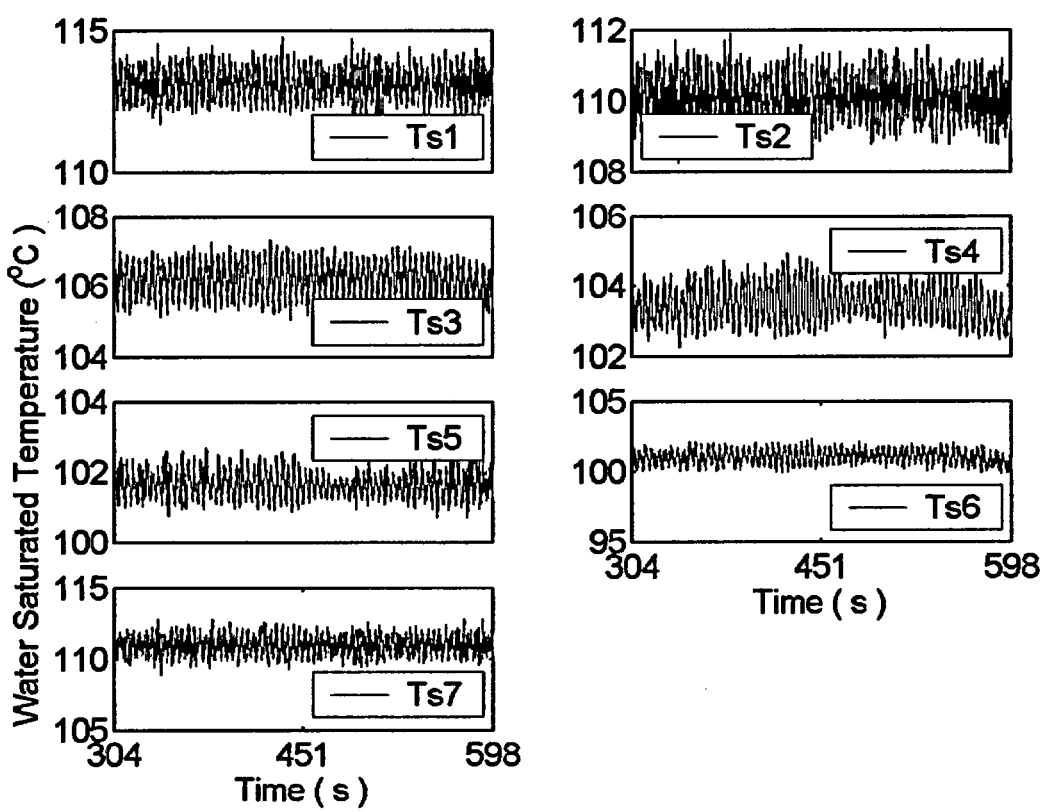

Figure A22.14. Water saturation temperature calculated from local pressure data at q = 1.370 MW/m^2.

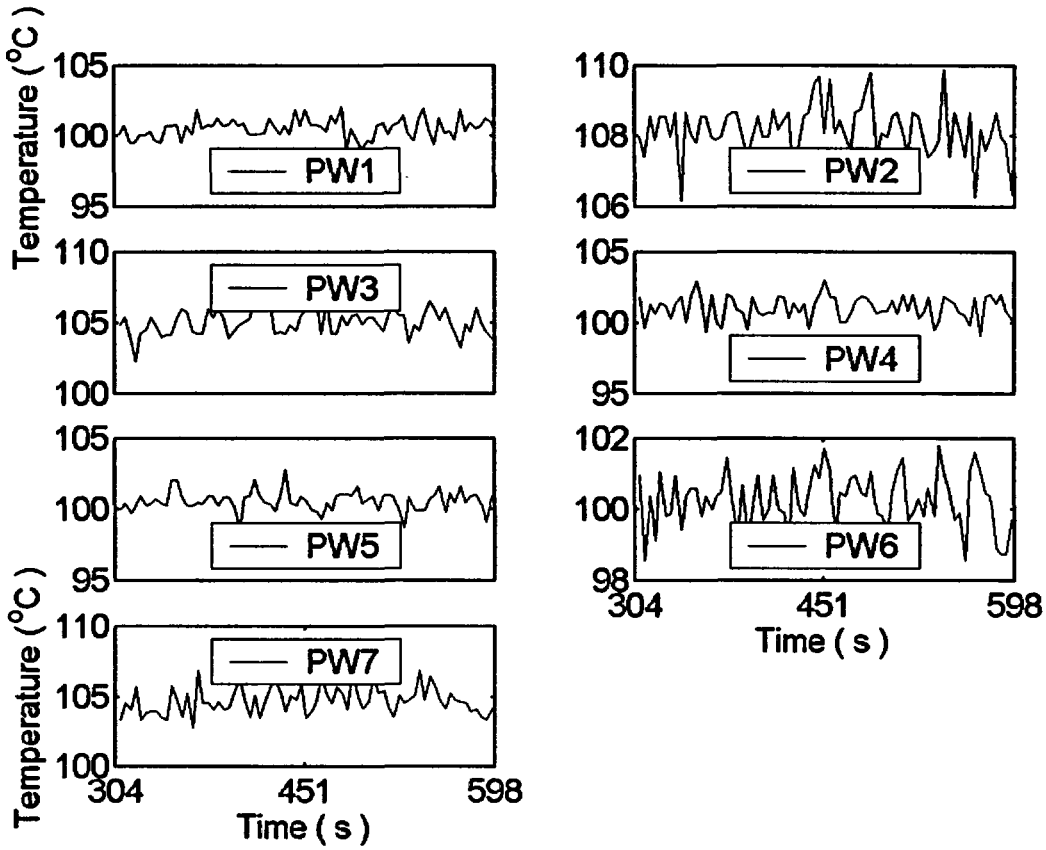

Figure A22.15. Water temperature measured at location of pressure transducer at q = 1.370 MW/m^2.

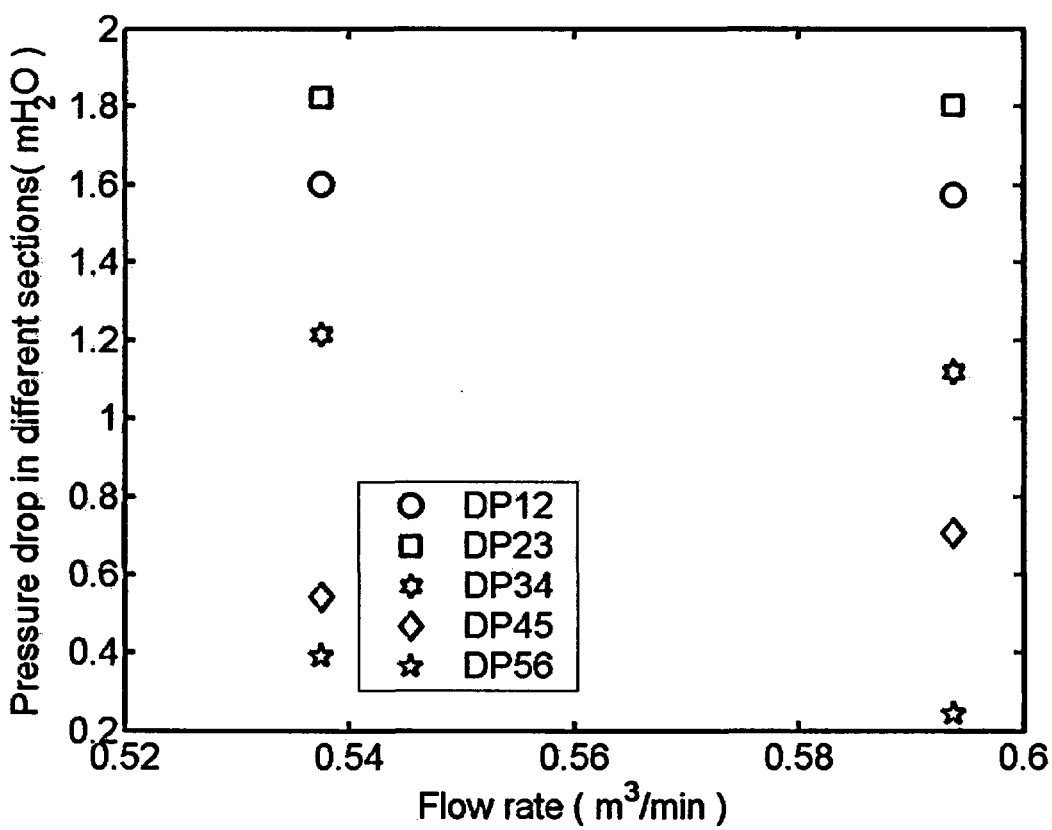

Figure A22.16 Pressure drop vs. flow rate at different heat fluxes.

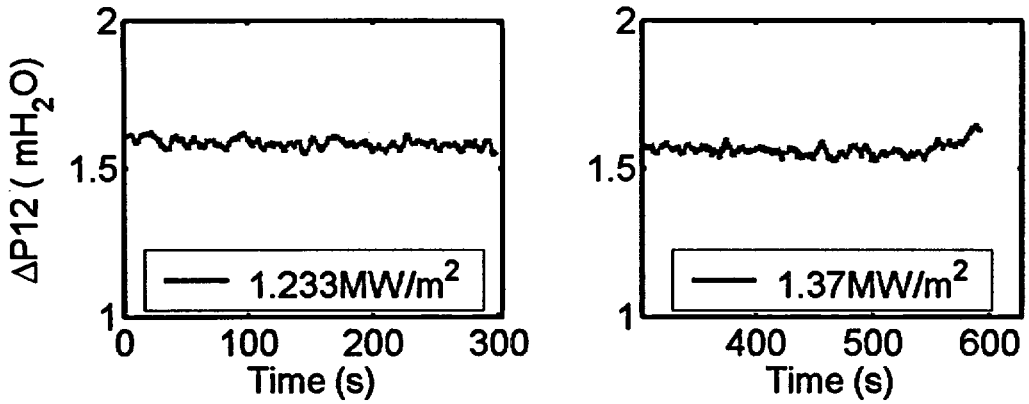

Figure A22.17. Differential Pressure ΔP12 at different heat fluxes.

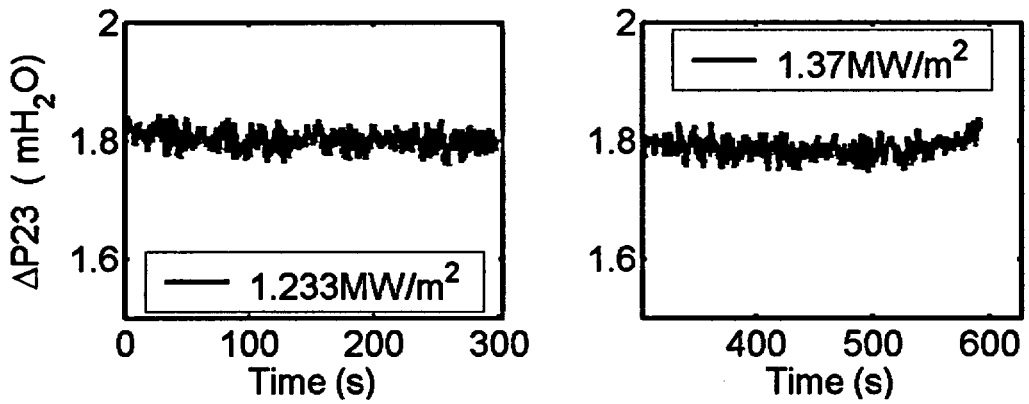

Figure A22.18. Differential Pressure ΔP23 at different heat fluxes.

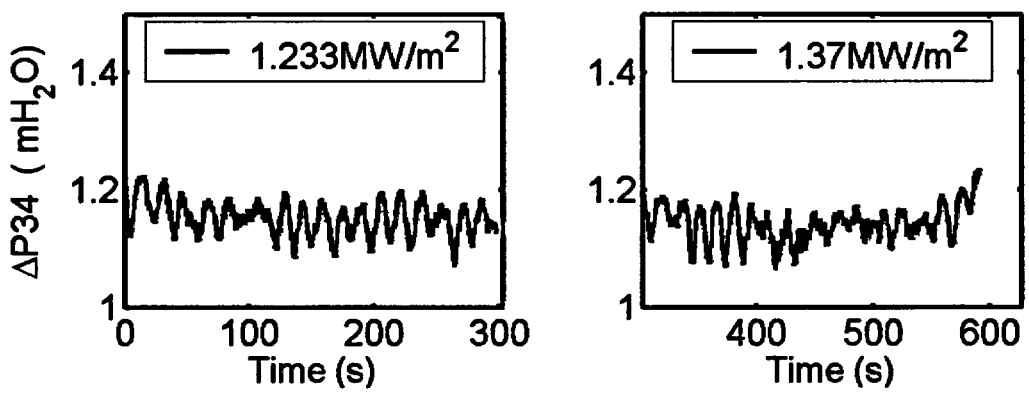

Figure A22.19. Differential Pressure ΔP34 at different heat fluxes.

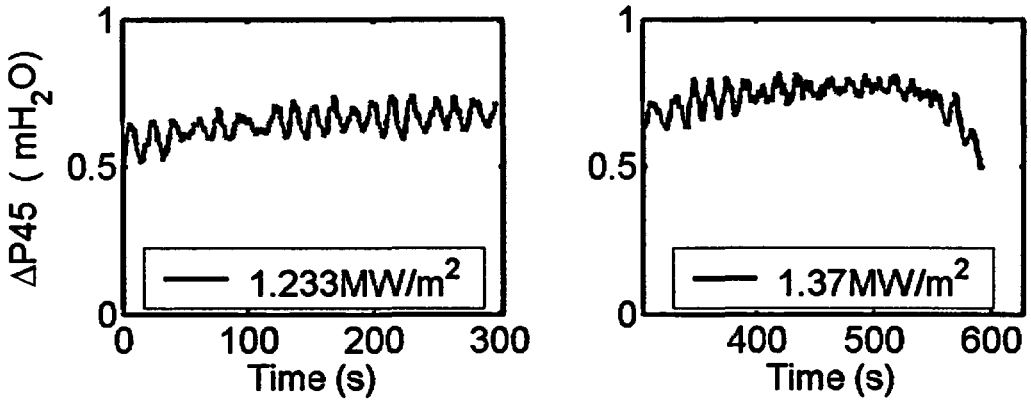

Figure A22.20. Differential Pressure ΔP45 at different heat fluxes.

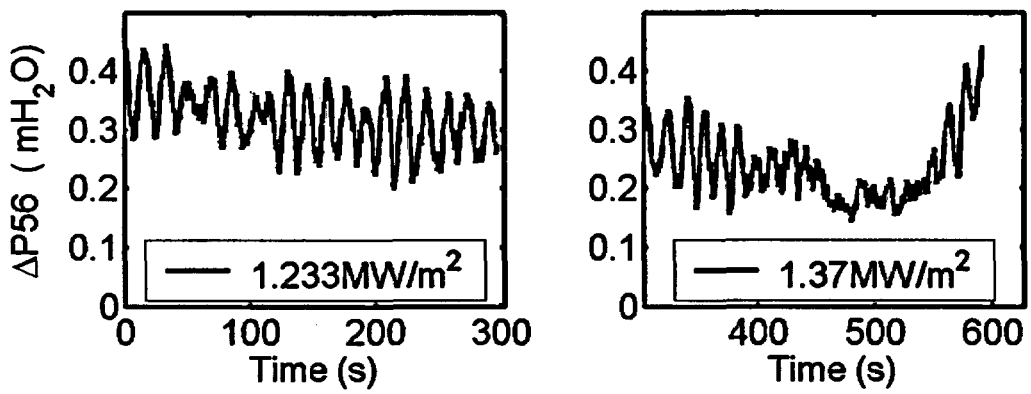

Figure A22.21 Differential Pressure ΔP56 at different heat fluxes.

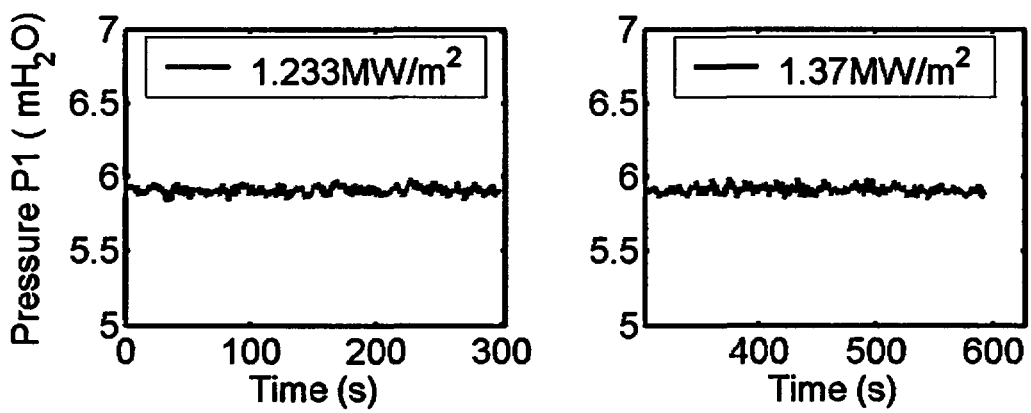

Figure A22.22 Pressure P1 at different heat fluxes.

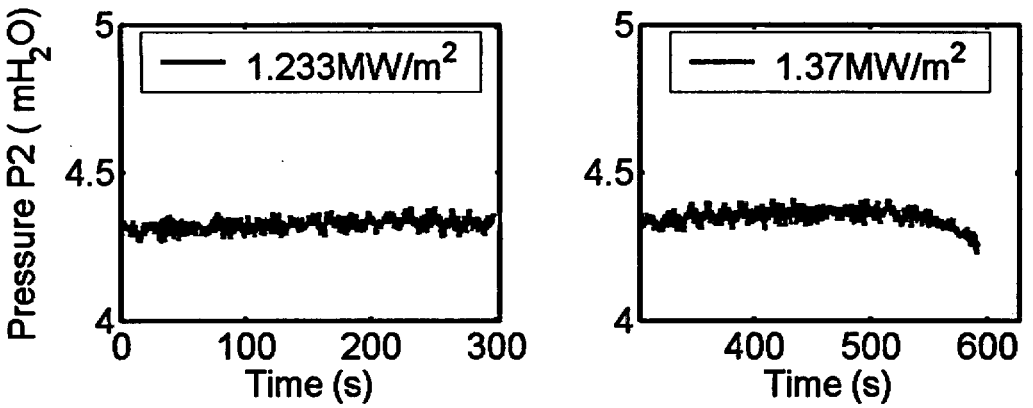

Figure A22.23 Pressure P2 at different heat fluxes.

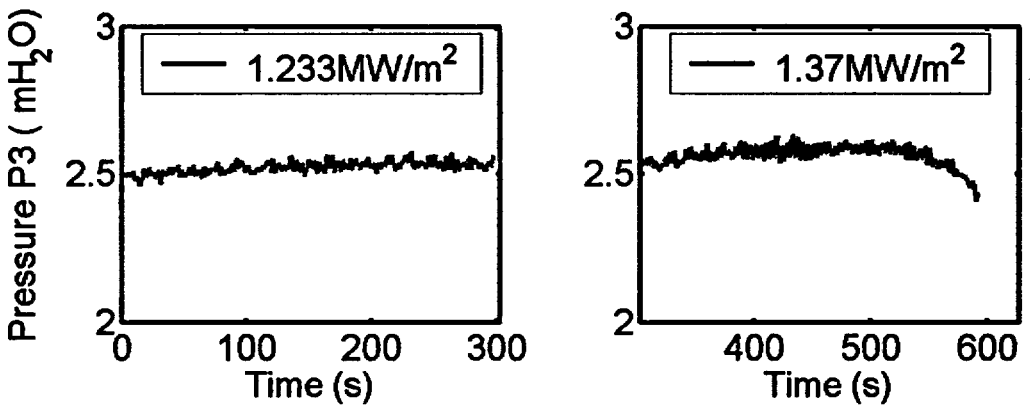

Figure A22.24 Pressure P3 at different heat fluxes.

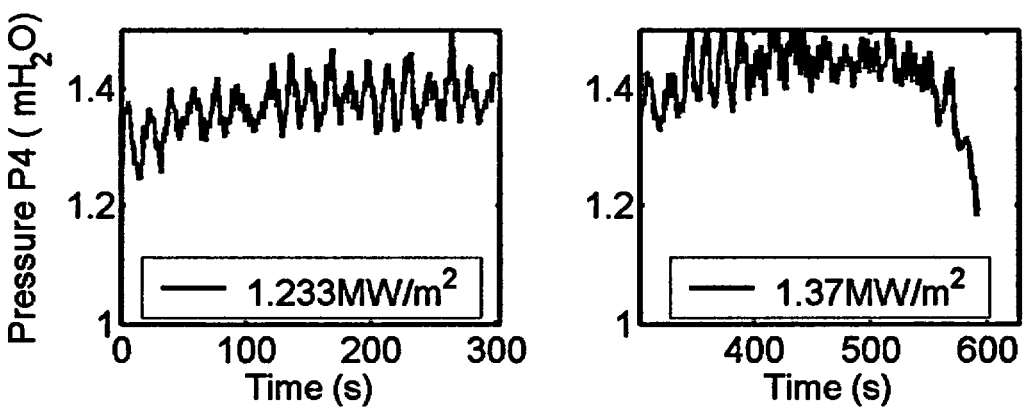

Figure A22.25 Pressure P4 at different heat fluxes.

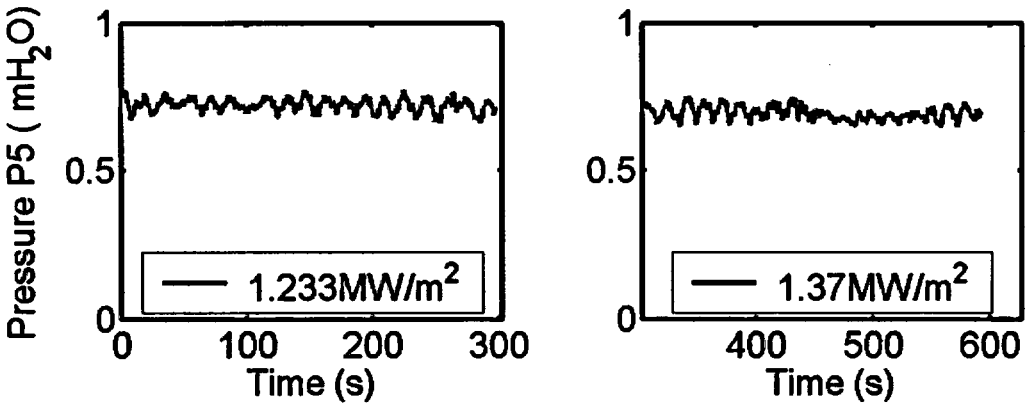

Figure A22.26 Pressure P5 at different heat fluxes.

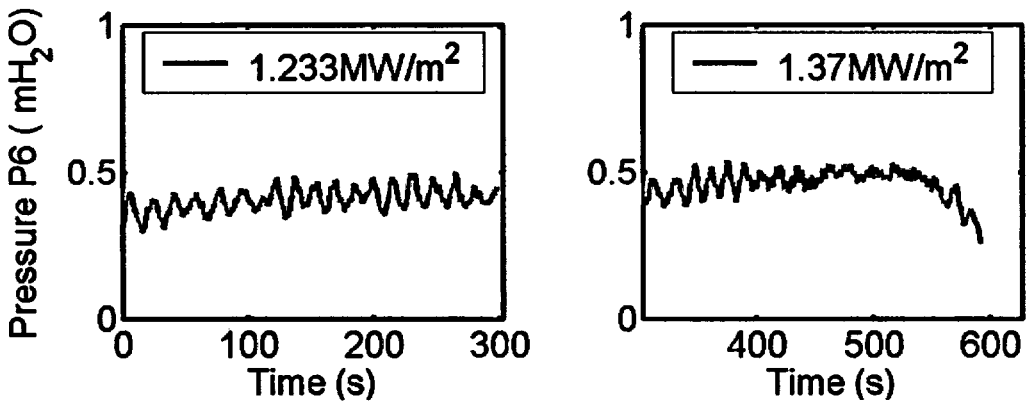

Figure A22.27 Pressure P6 at different heat fluxes.

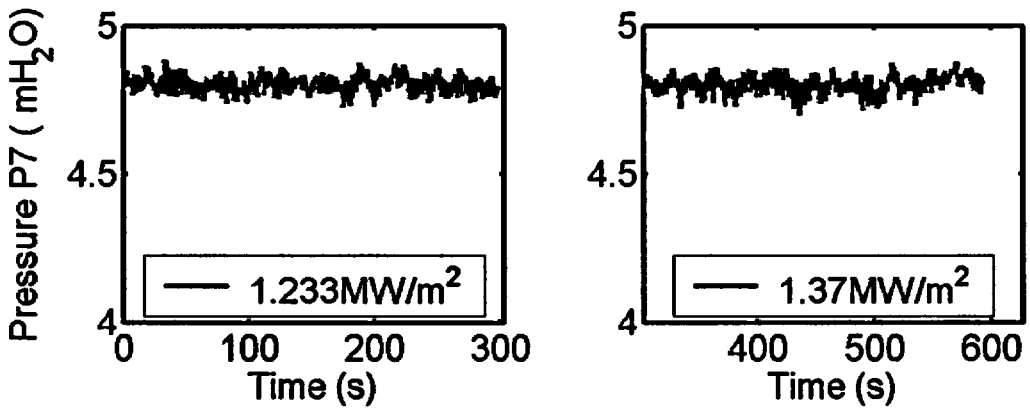

Figure A22.28 Pressure P7 at different heat fluxes.

ID #23

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T40F	1370	LC4	71	C	12/19/2002/13:10

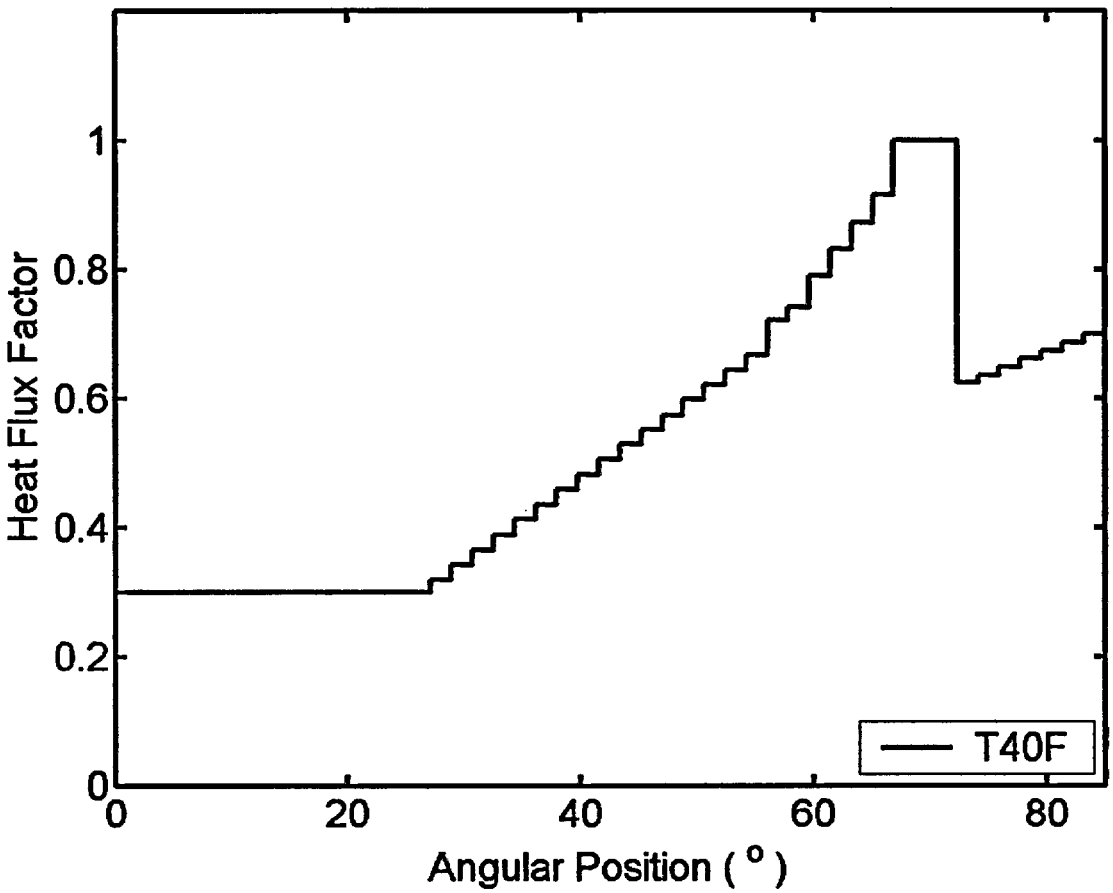

Figure A23.1. Power shape.

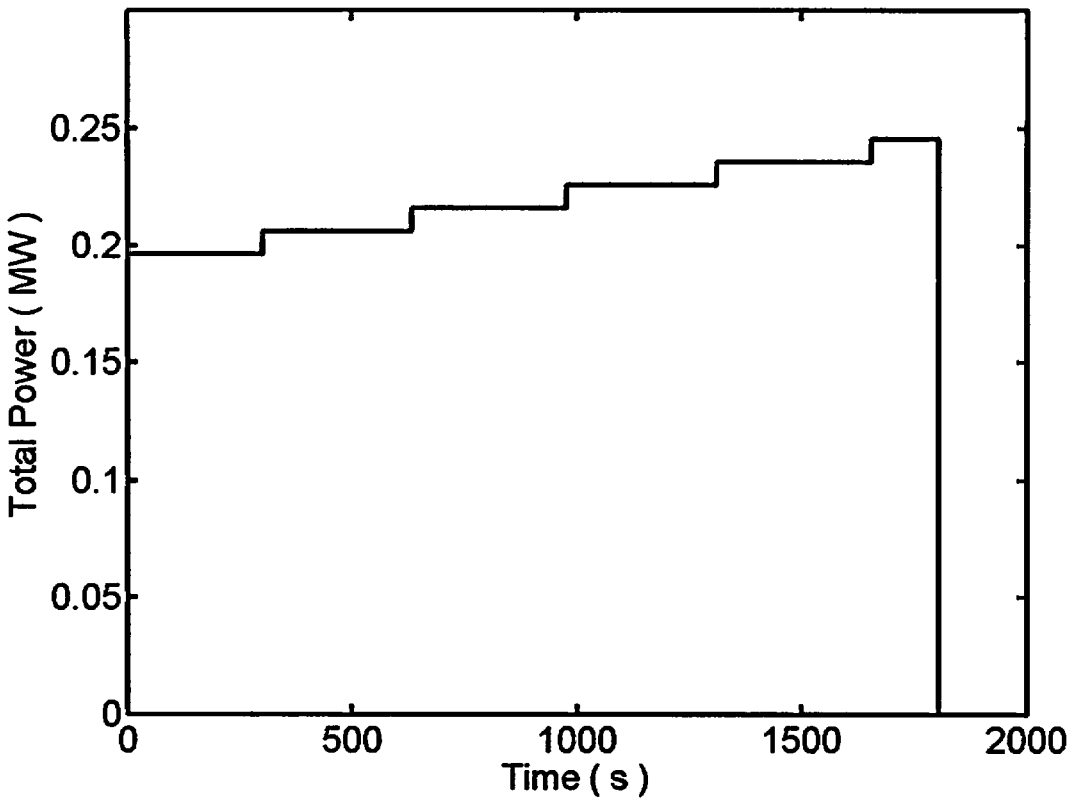

Figure A23.2. Total input power history.

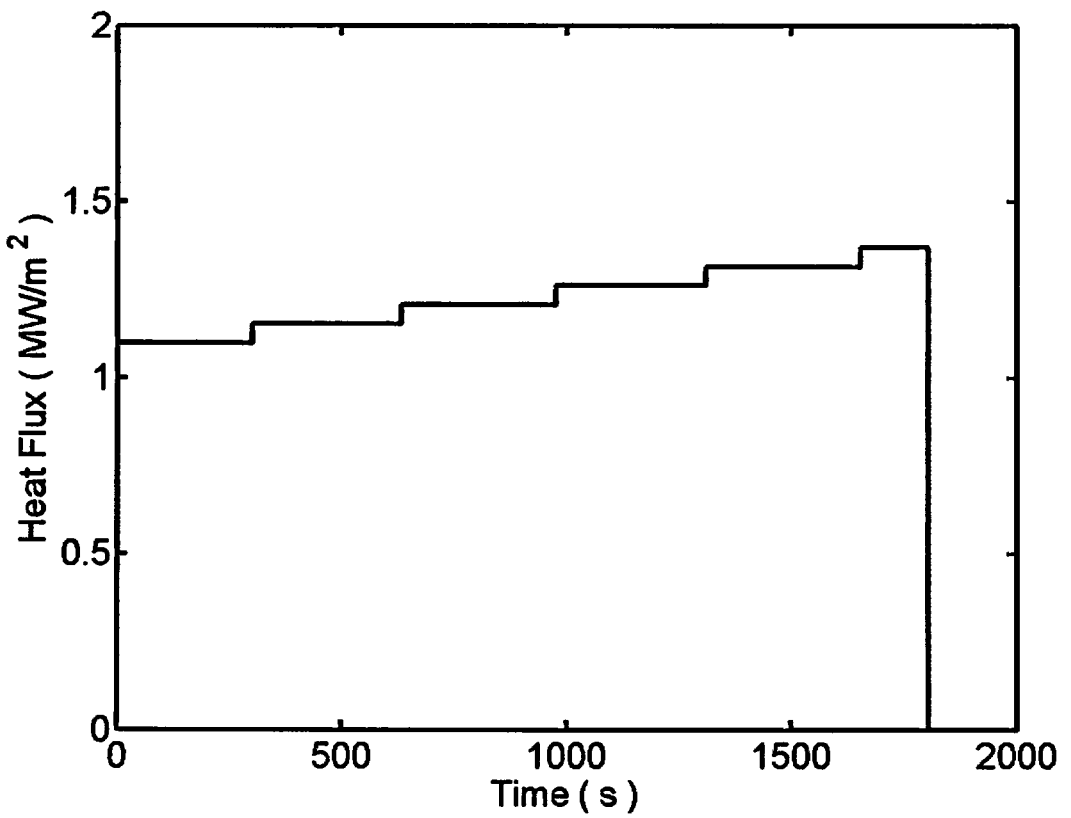

Figure A23.3. Heat flux history.

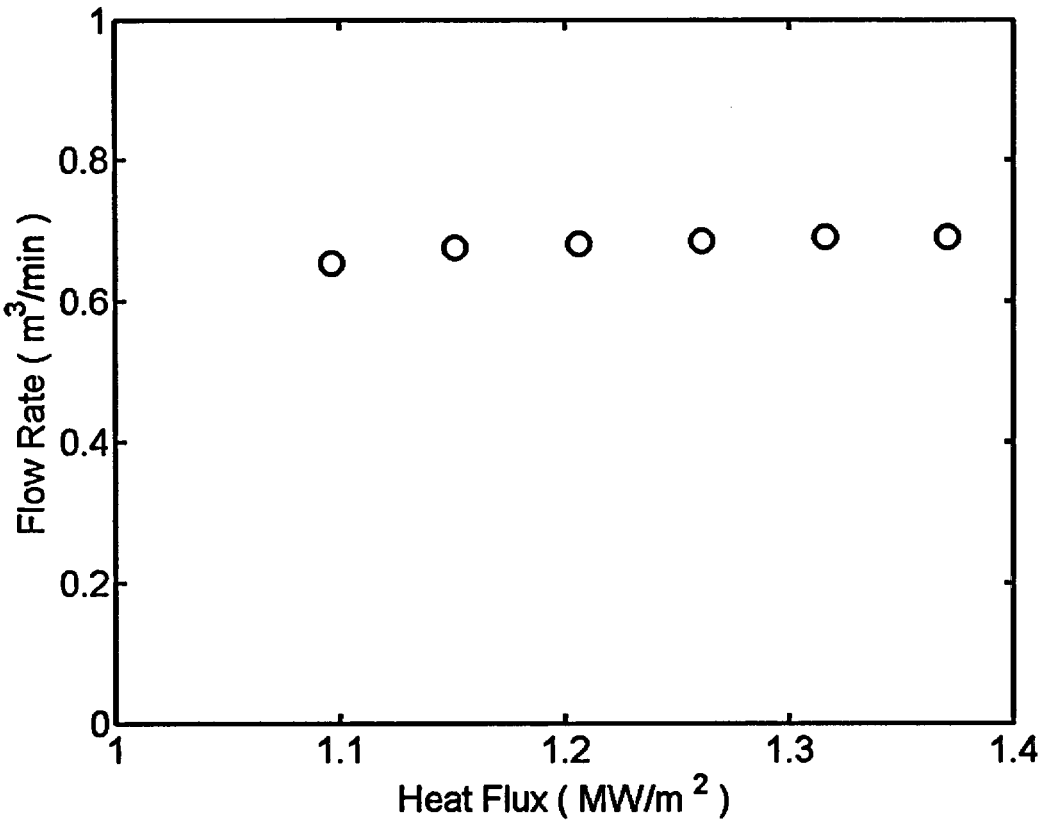

Figure A23.4. Flow rate vs. heat fluxes.

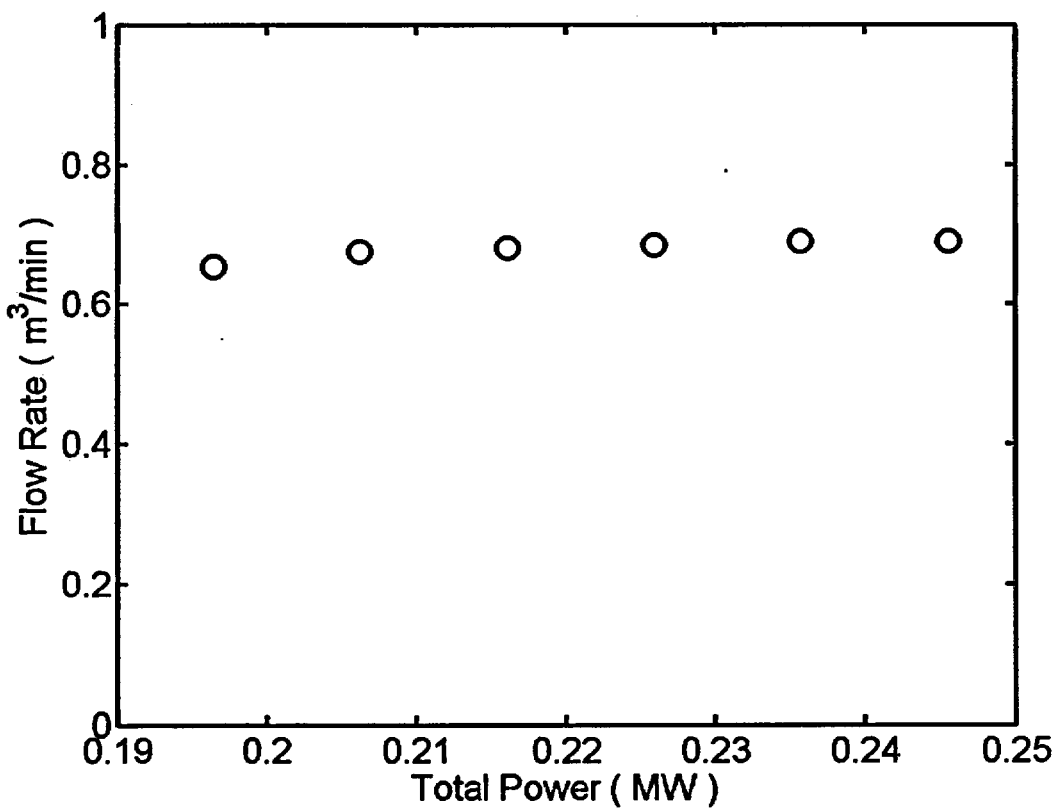

Figure A23.5. Flow rate vs. total input power.

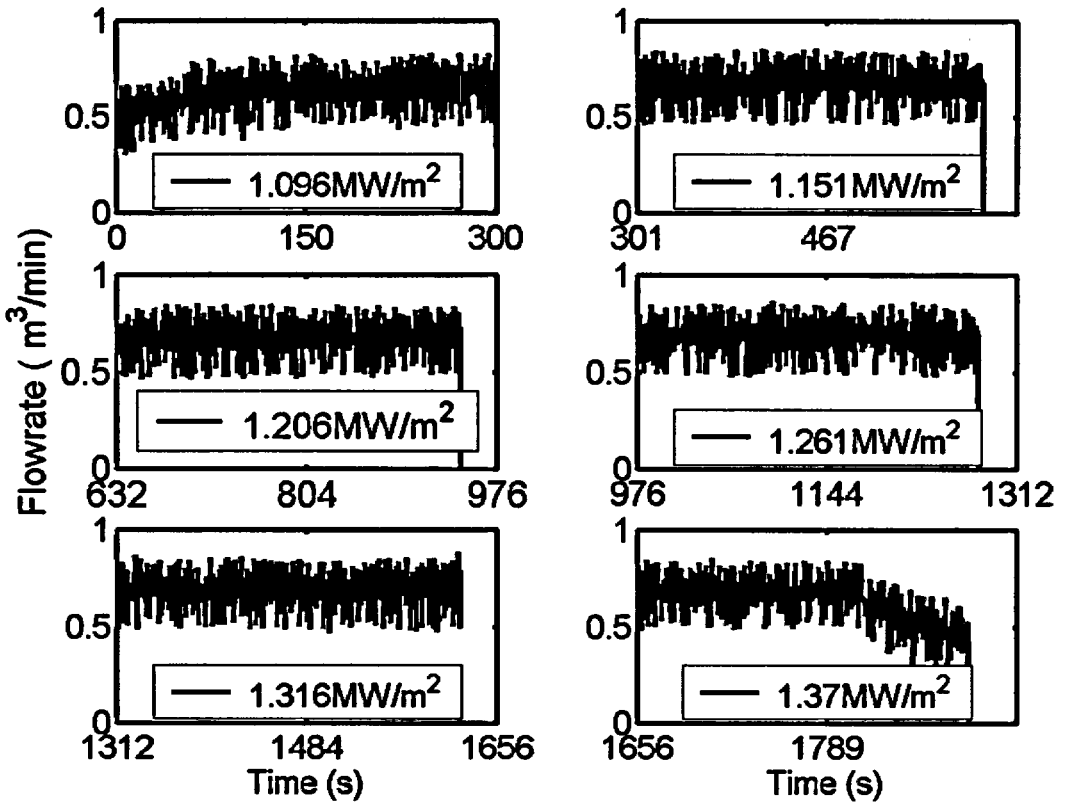

Figure A23.6. Flow rates at different heat fluxes.

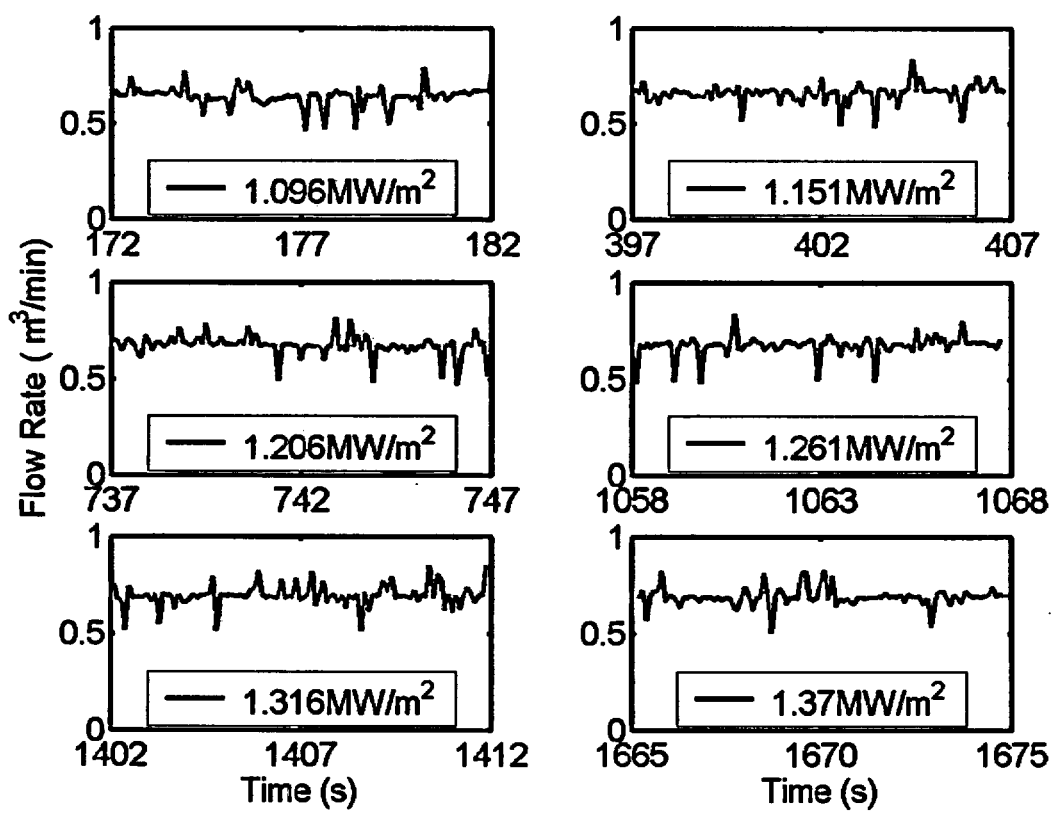

Figure A23.7. Flow rates at different heat fluxes at selected time intervals.

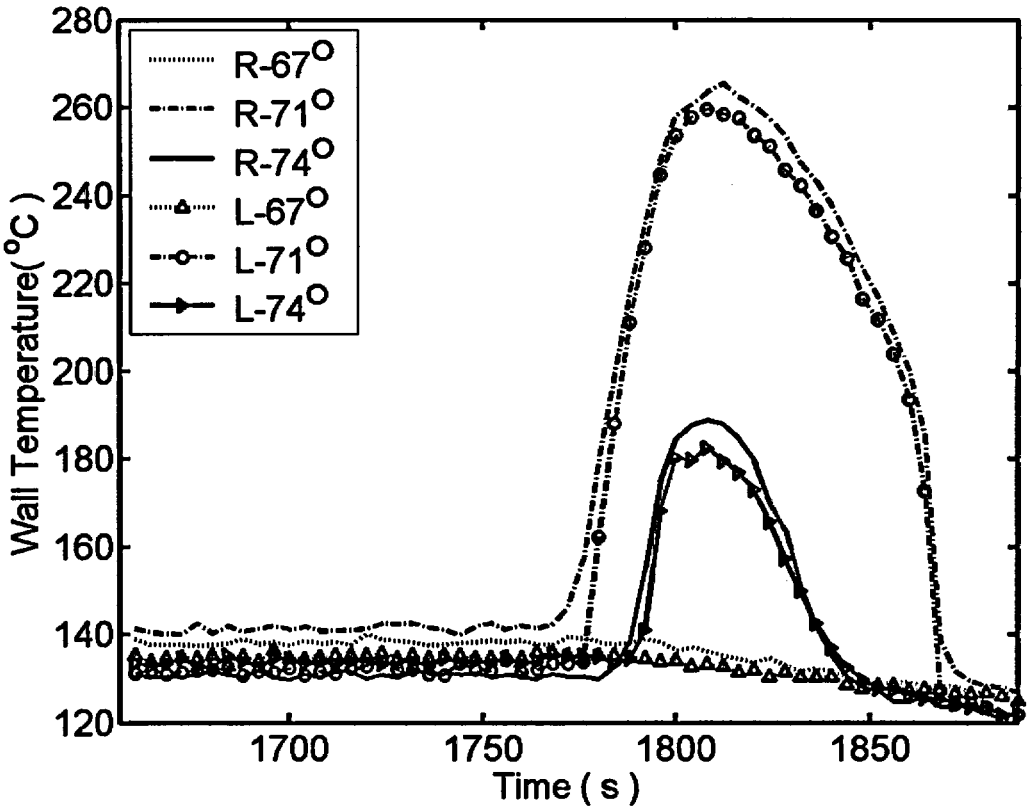

Figure A23.8. Temperature history at CHF.

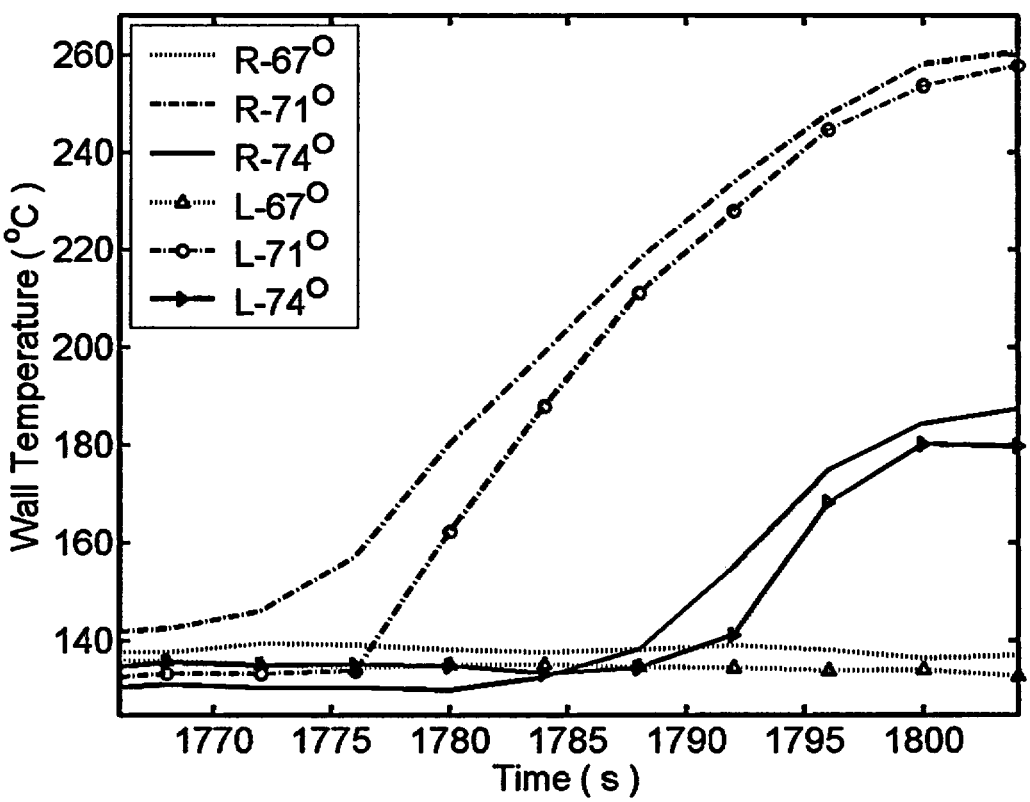

Figure A23.9. Temperature history at CHF in detail.

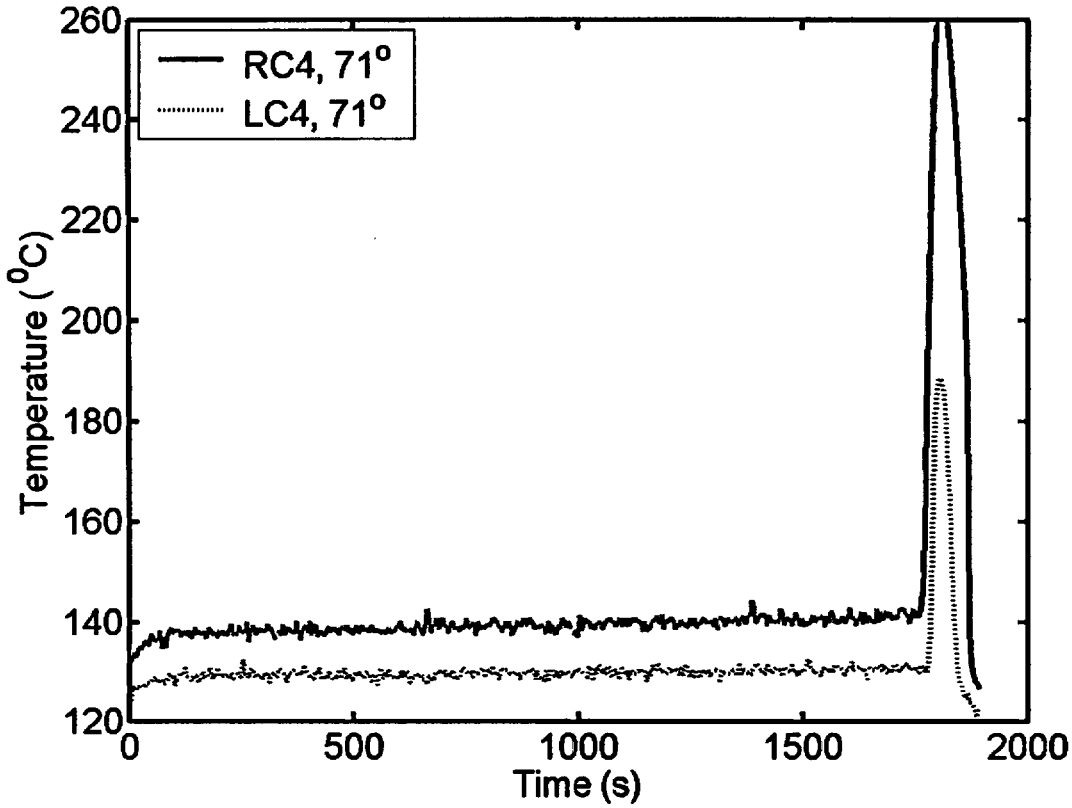

Figure A23.10. Wall temperature history measured by two thermocouples LC4 and RC4.

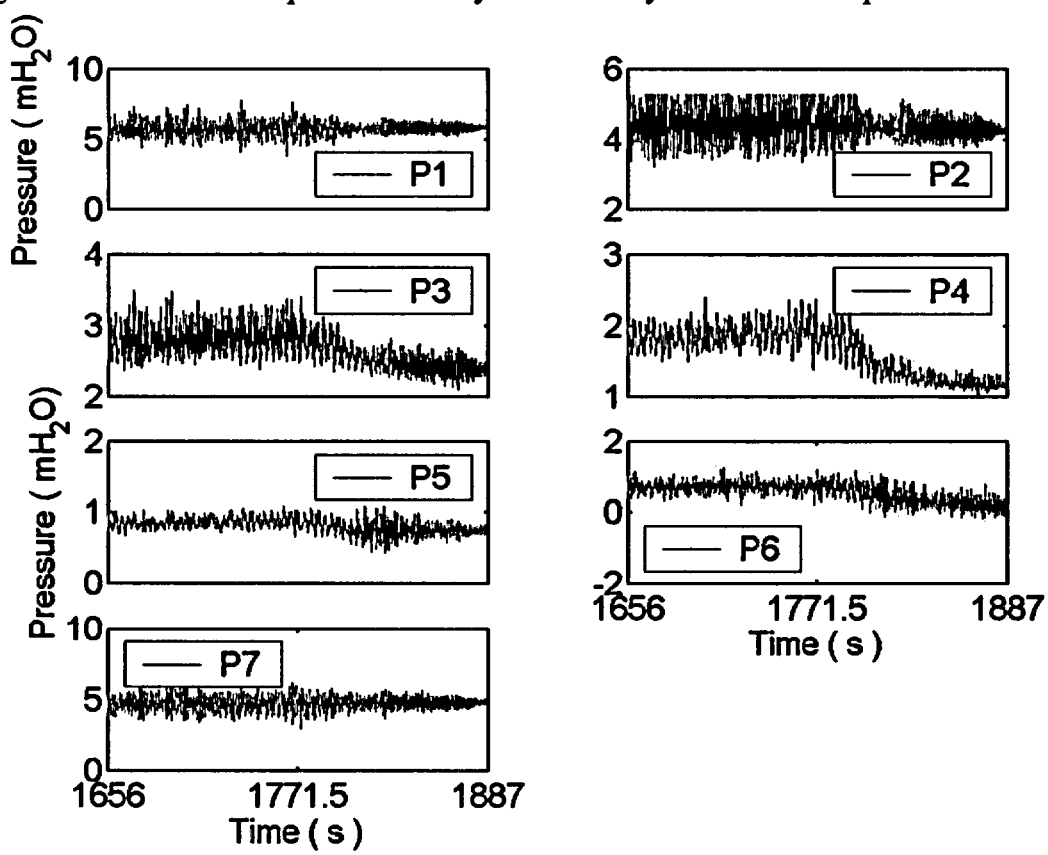

Figure A23.11. Pressure transducer data at q = 1.370 MW/m^2.

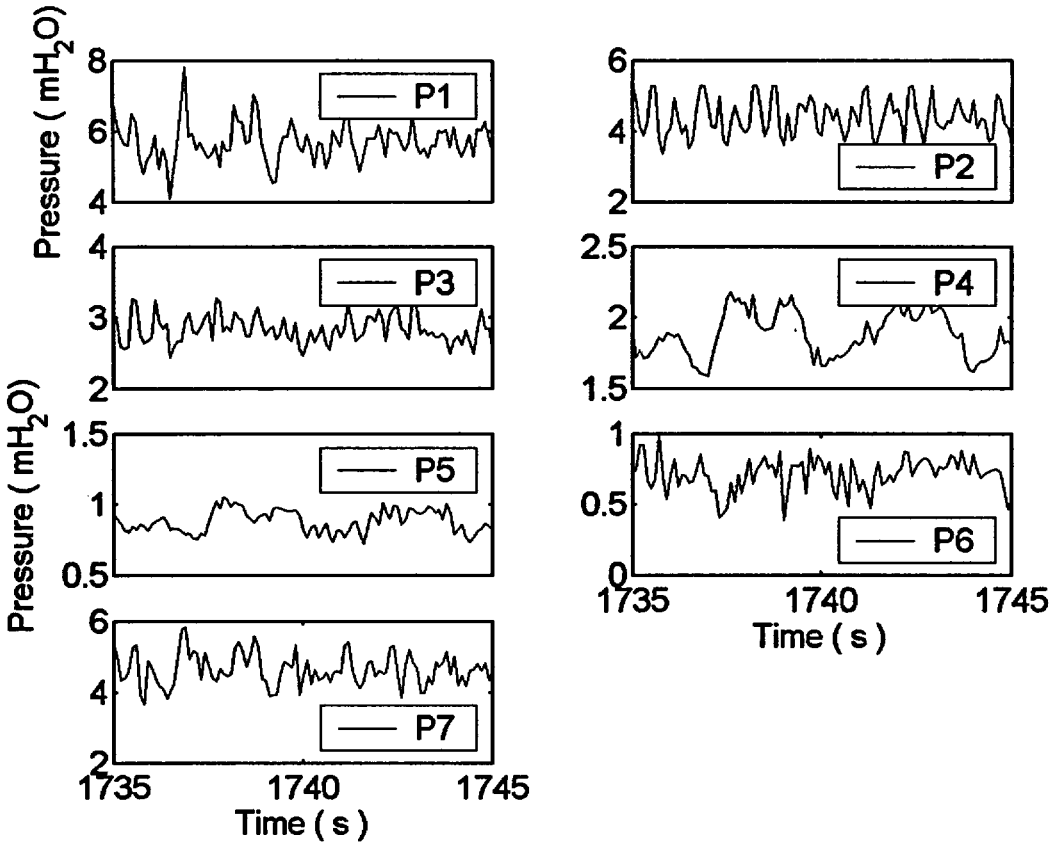

Figure A23.12. Pressure data in detail at q = 1.370 MW/m^2.

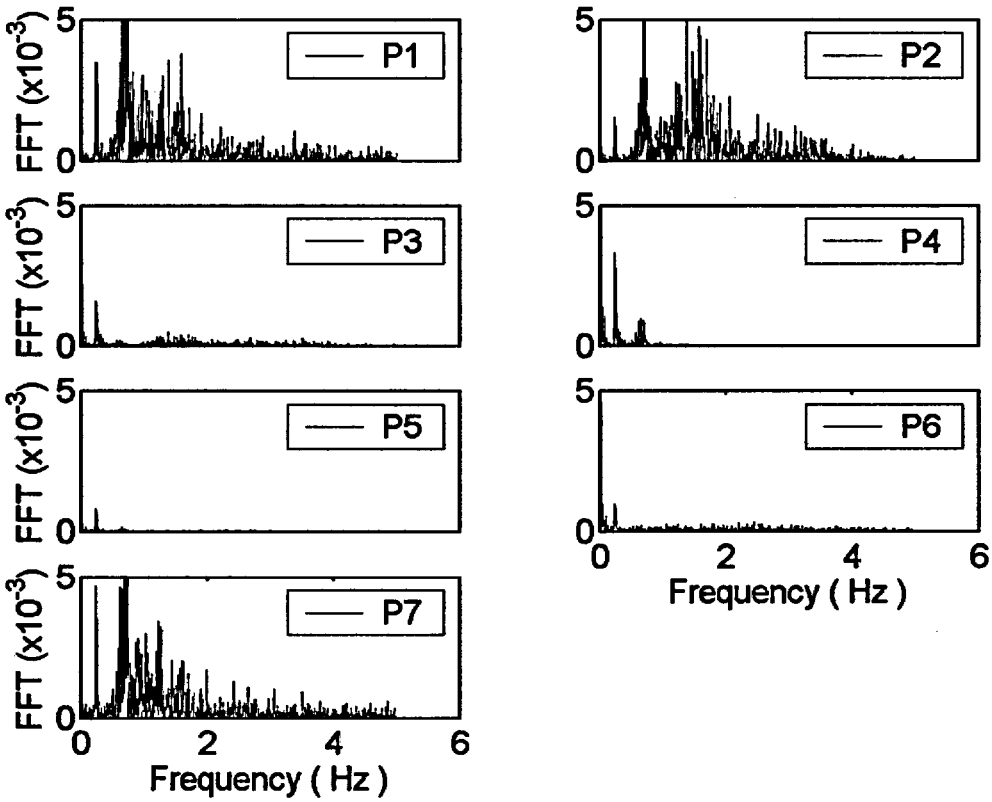

Figure A23.13. FFT of pressure time series at q = 1.370 MW/m^2.

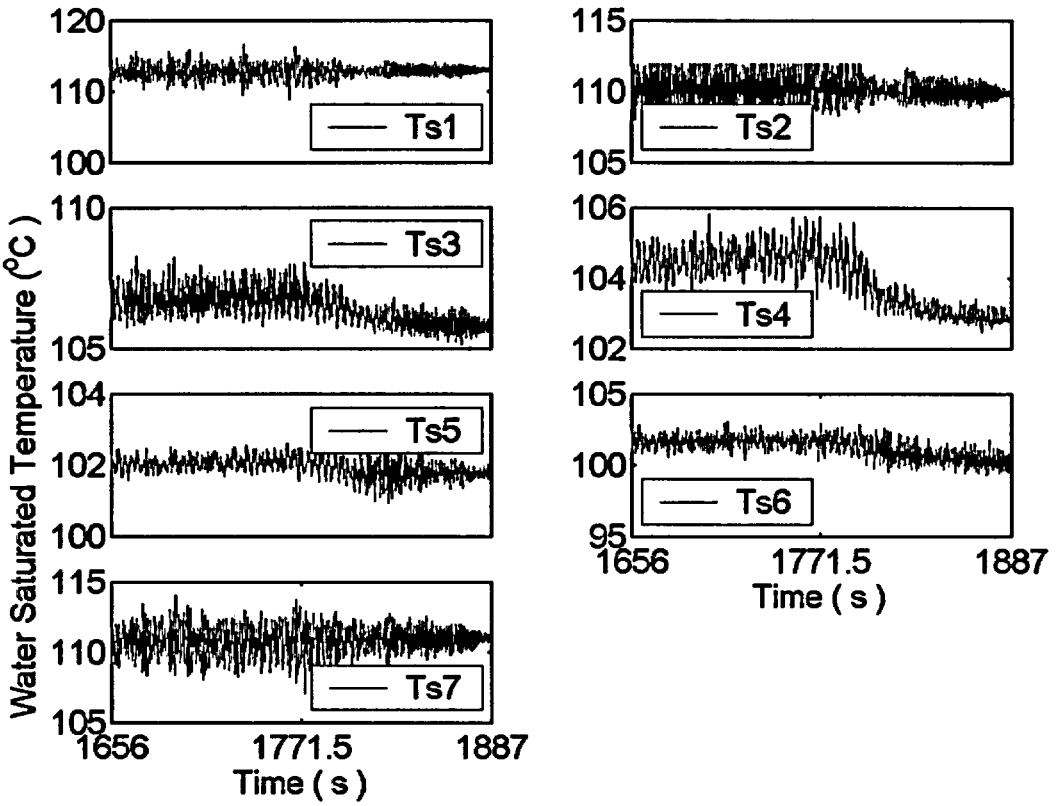

Figure A23.14. Water saturation temperature calculated from local pressure data at q = 1.370 MW/m^2.

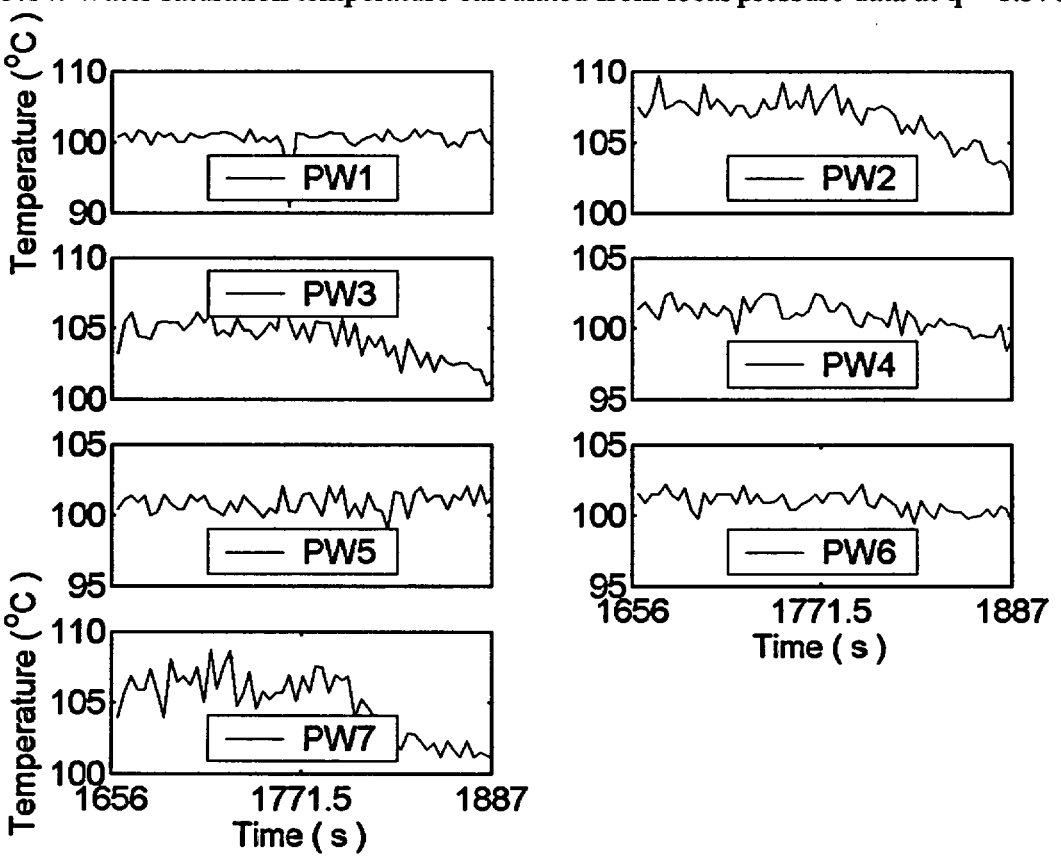

Figure A23.15. Water temperature measured at location of pressure transducer at q = 1.370 MW/m^2.

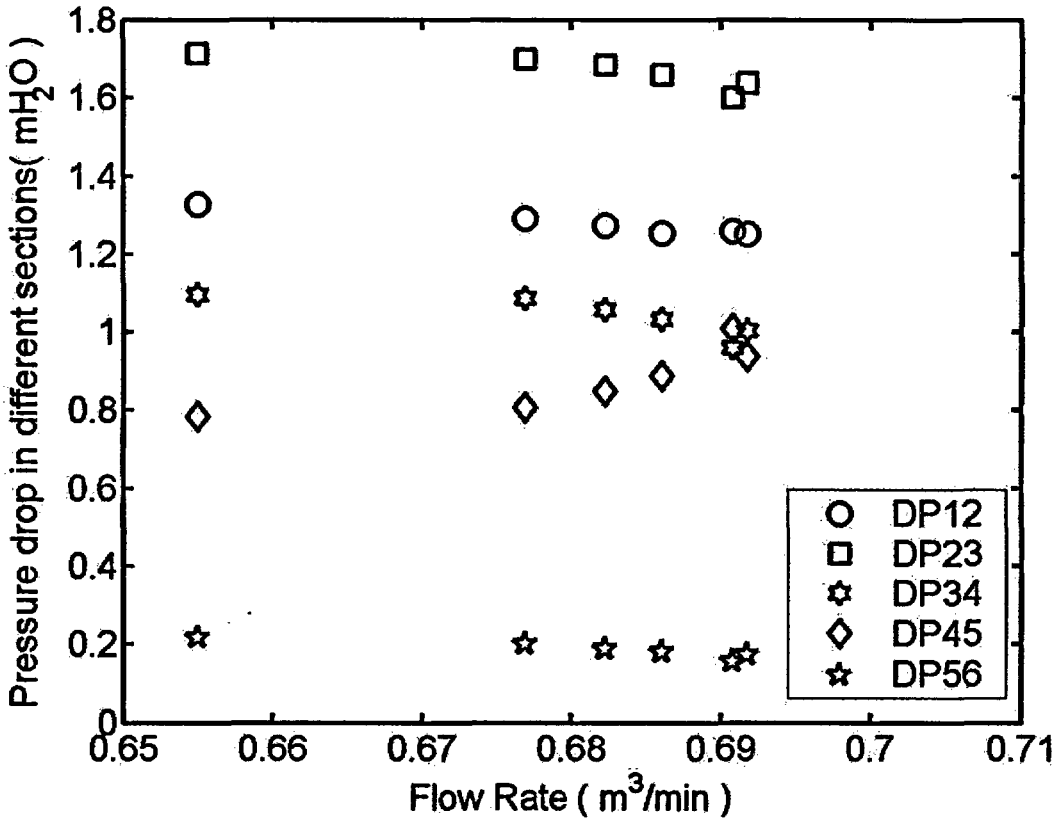

Figure A23.16. Pressure drop vs. flow rate at different heat fluxes.

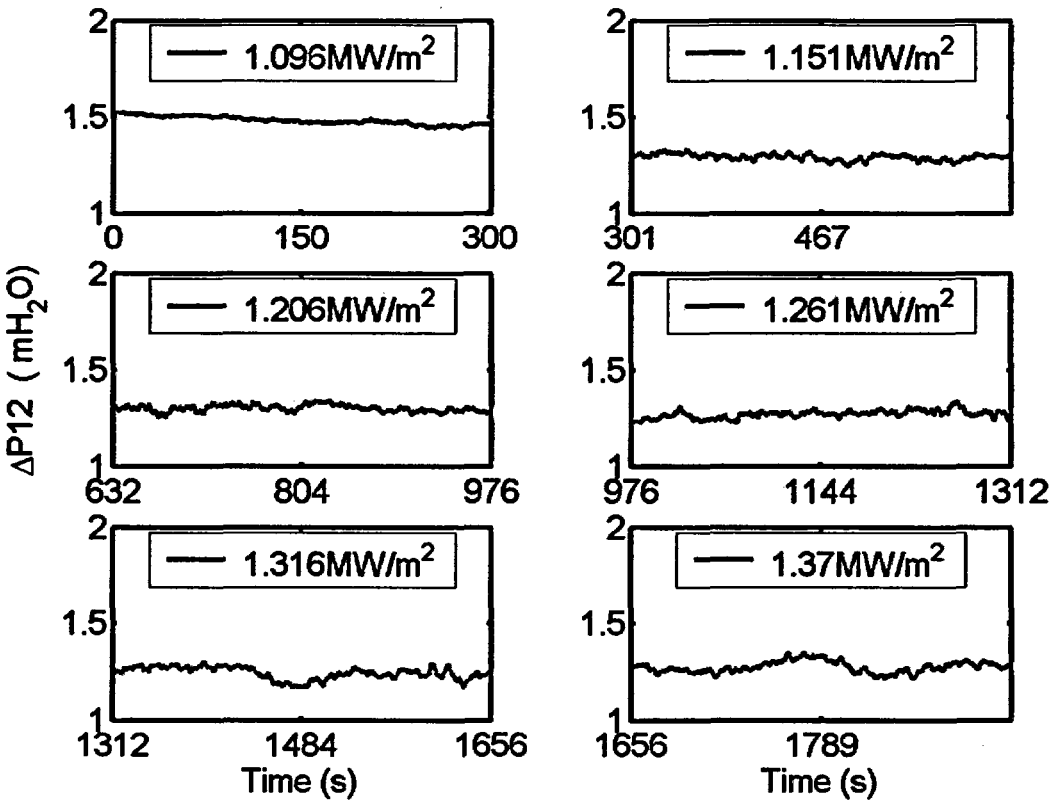

Figure A23.17. Differential Pressure ΔP12 at different heat fluxes.

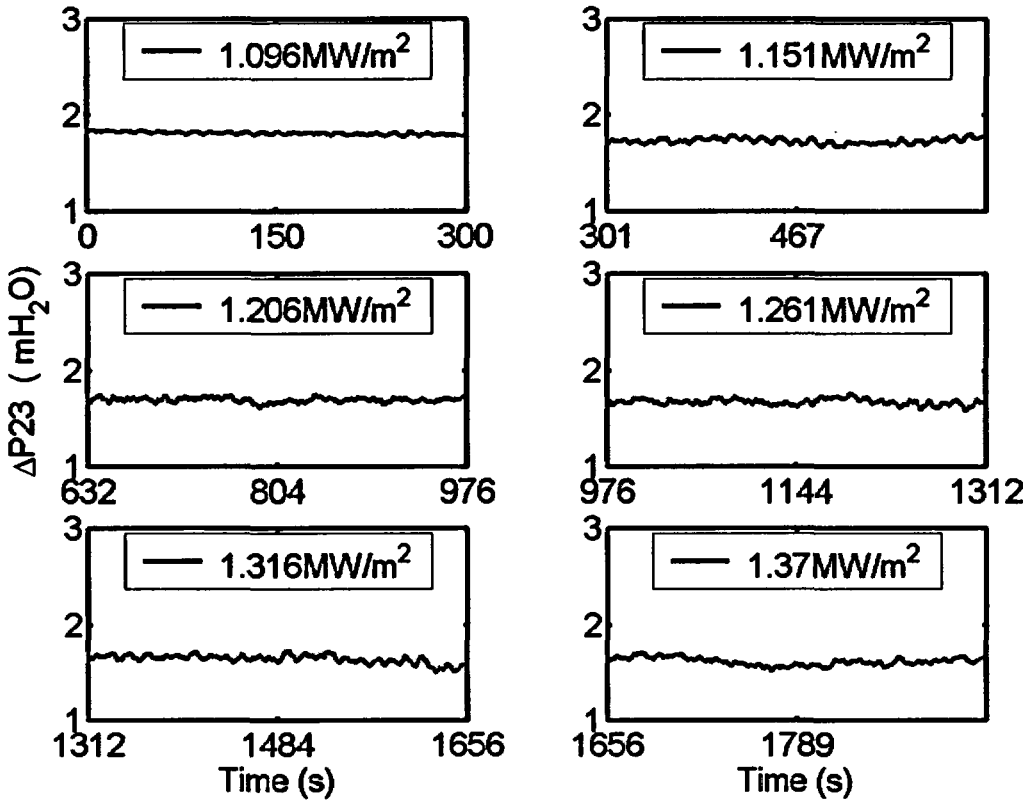

Figure A23.18. Differential Pressure ΔP23 at different heat fluxes.

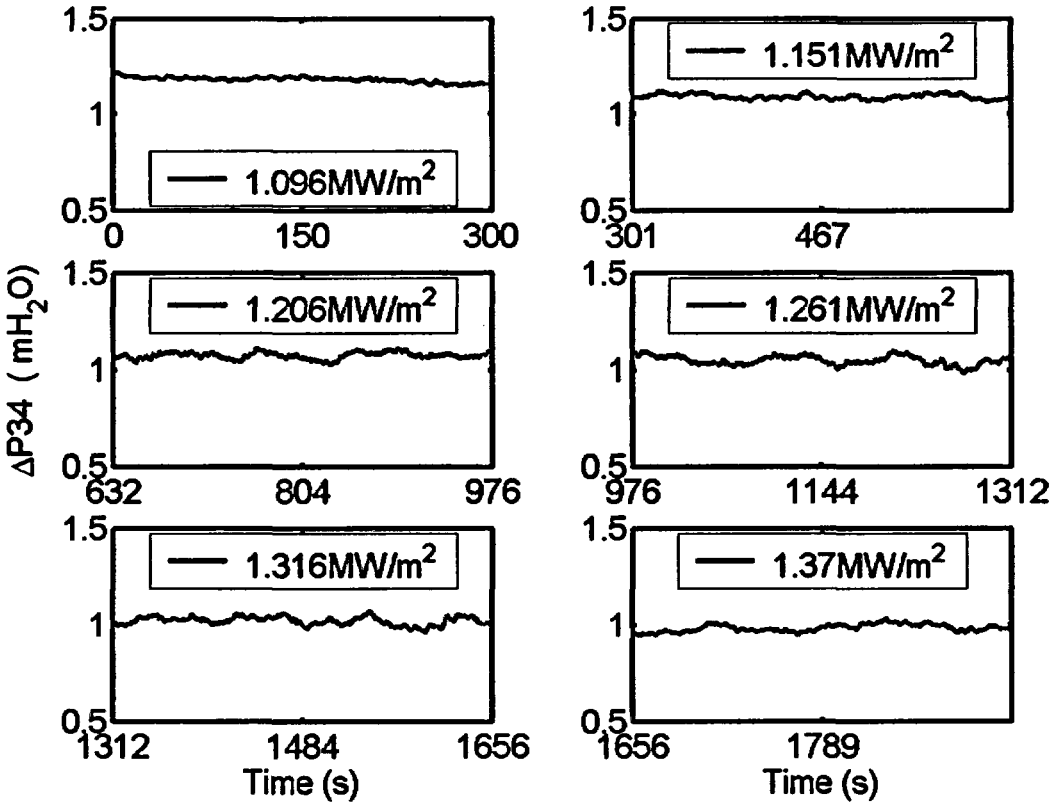

Figure A23.19. Differential Pressure ΔP34 at different heat fluxes.

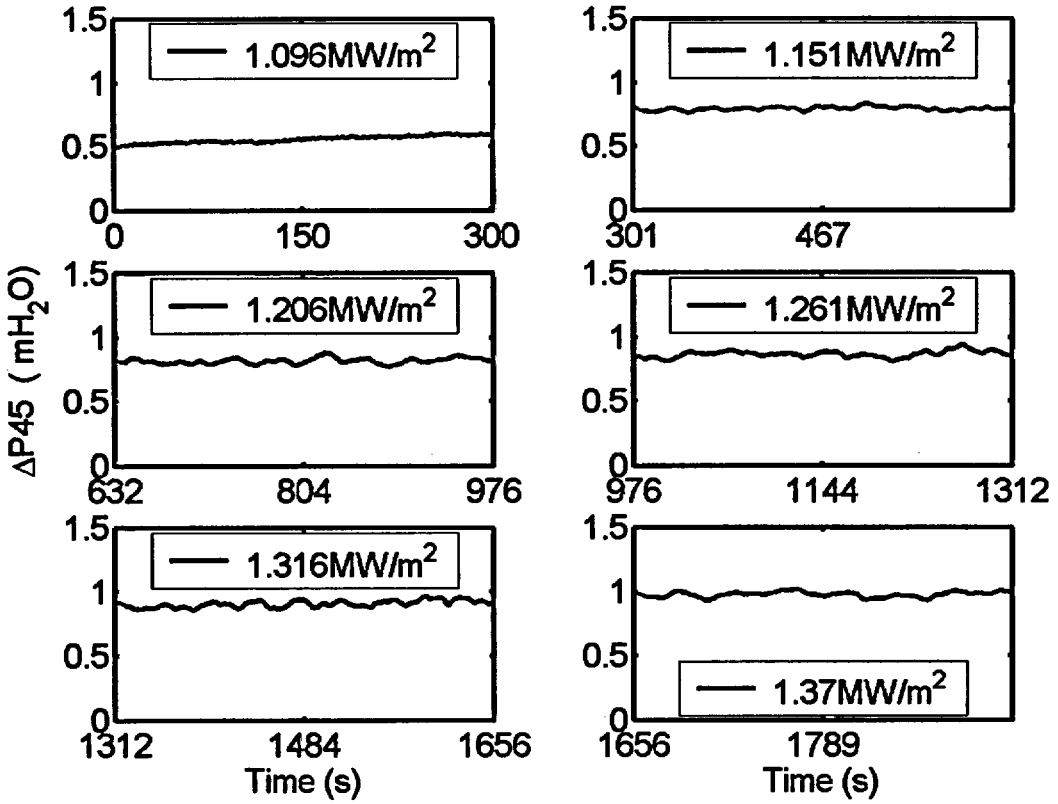

Figure A23.20. Differential Pressure ΔP45 at different heat fluxes.

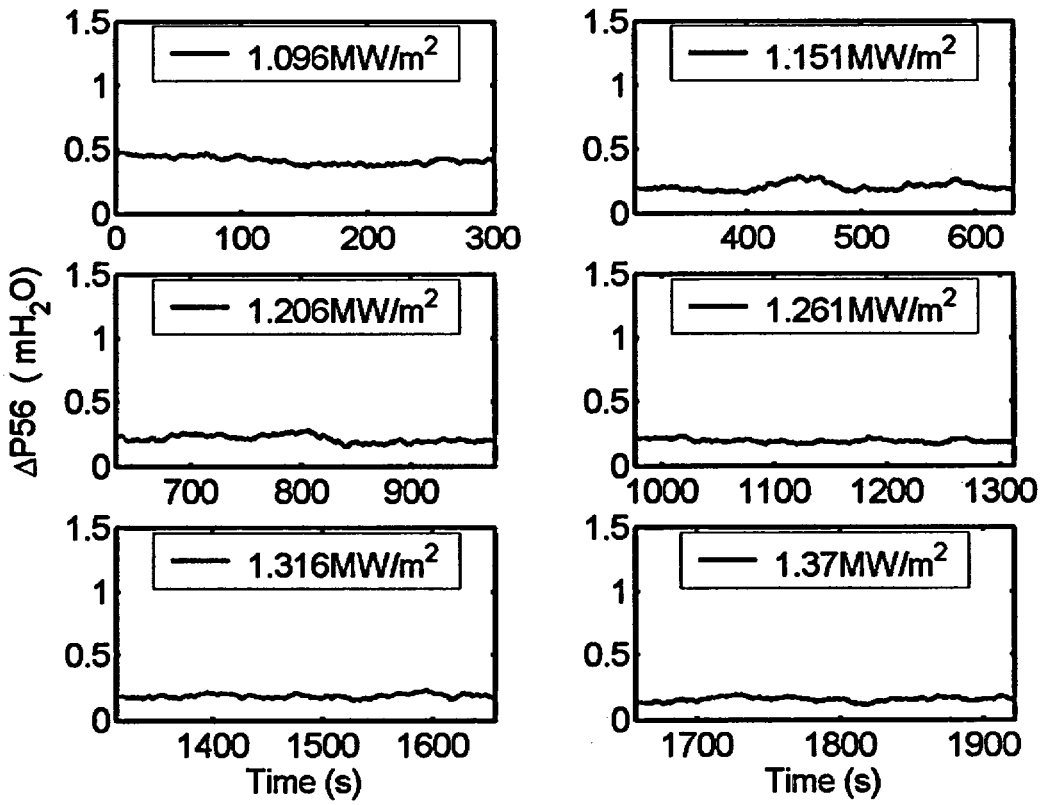

Figure A23.21. Differential Pressure ΔP56 at different heat fluxes.

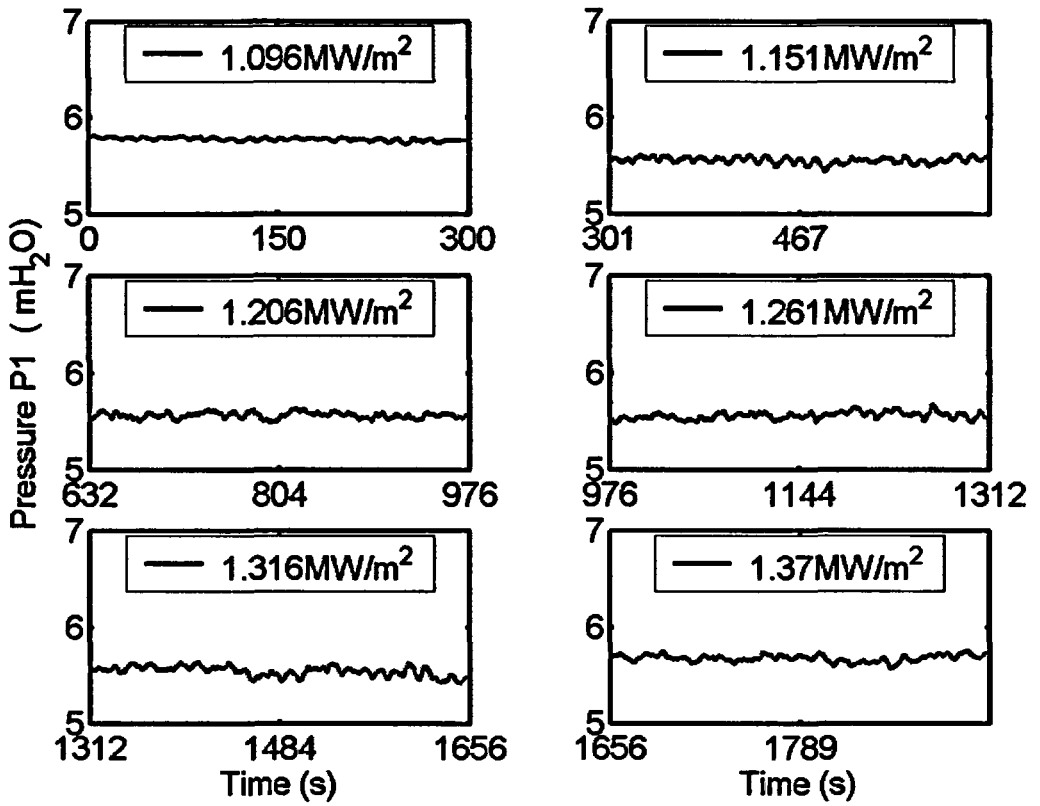

Figure A23.22. Pressure P1 at different heat fluxes.

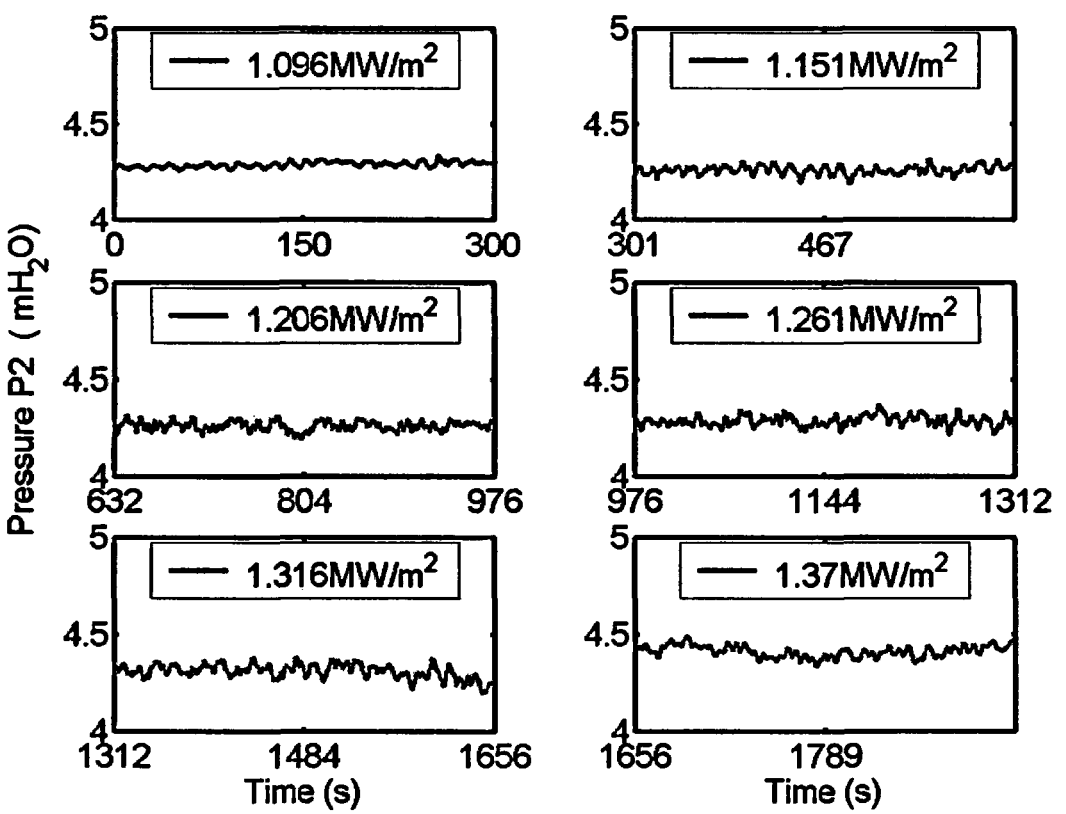

Figure A23.23. Pressure P2 at different heat fluxes.

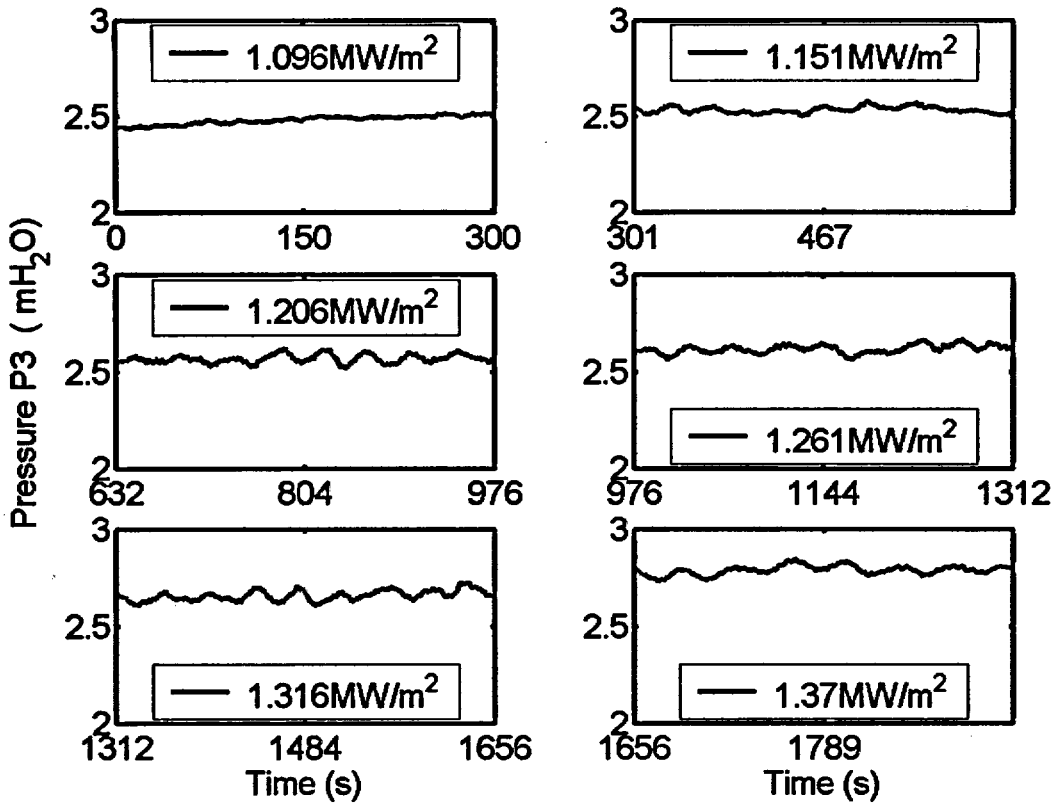

Figure A23.24. Pressure P3 at different heat fluxes.

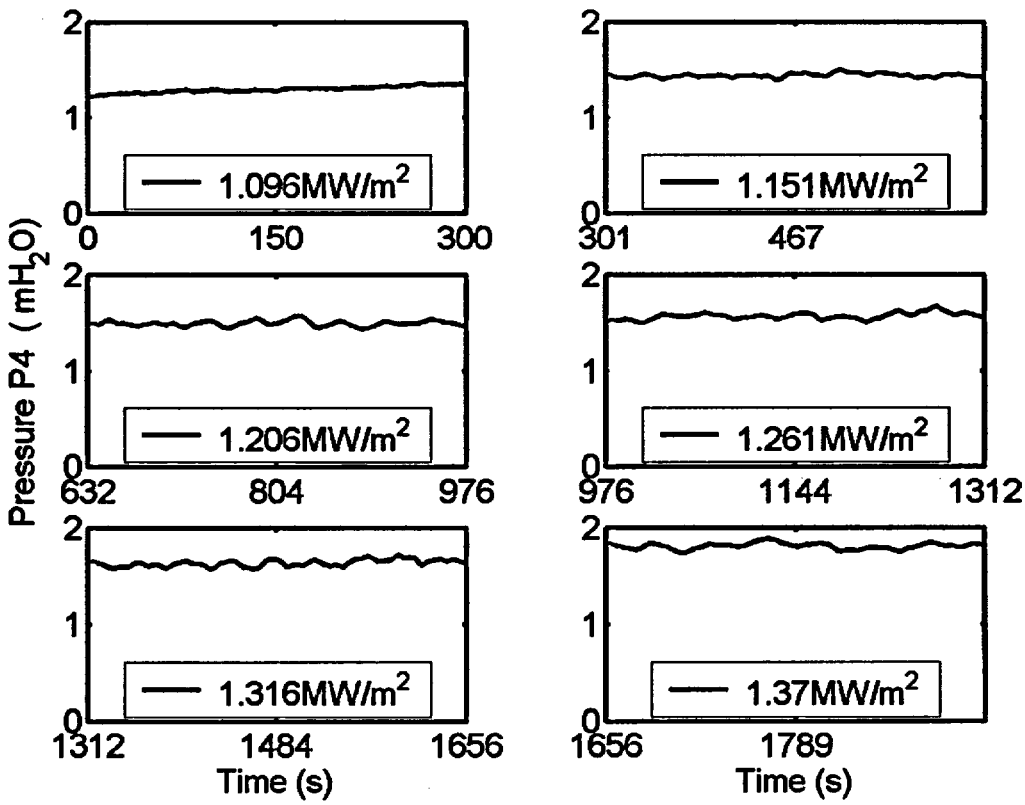

Figure A23.25. Pressure P4 at different heat fluxes.

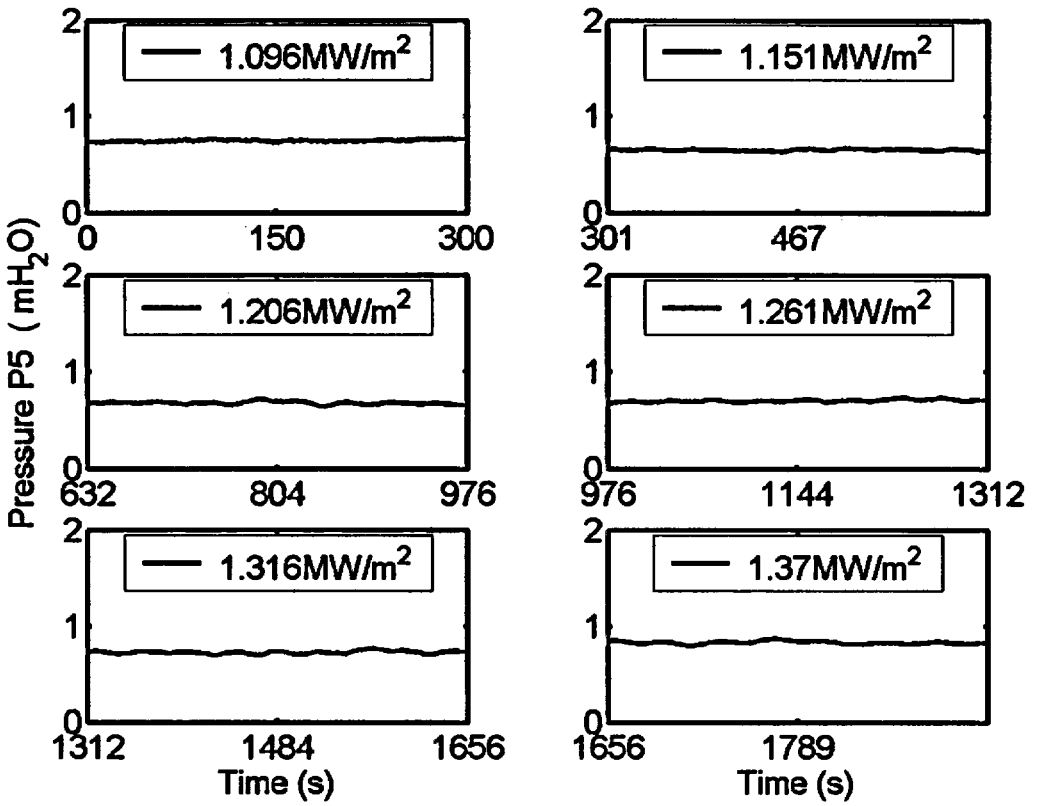

Figure A23.26. Pressure P5 at different heat fluxes.

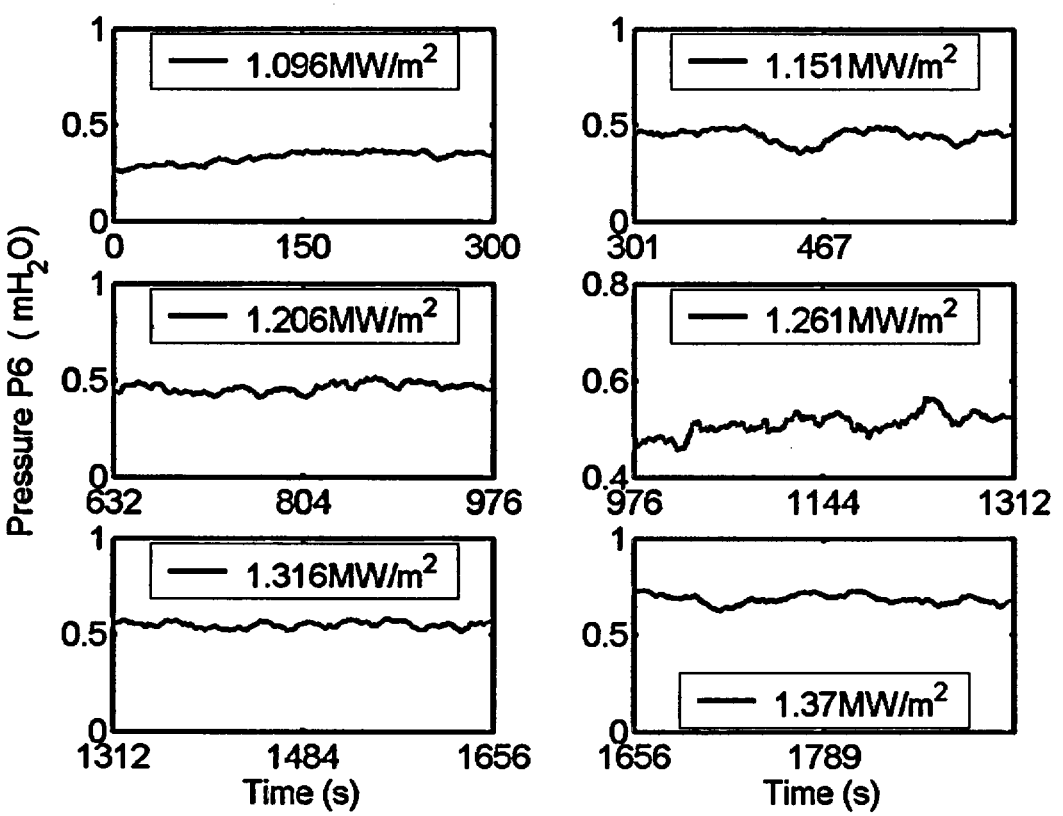

Figure A23.27. Pressure P6 at different heat fluxes.

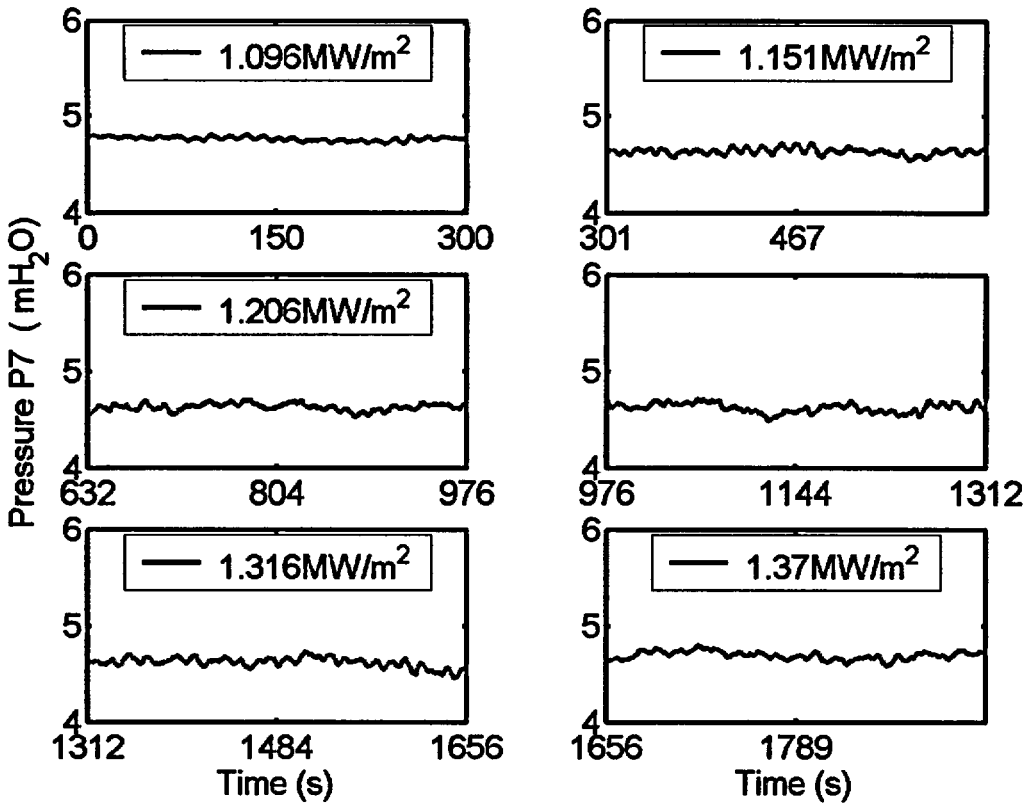

Figure A23.28. Pressure P7 at different heat fluxes.

ID #24

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T40F	1316	LC4	71	C	01/03/2003/13:30

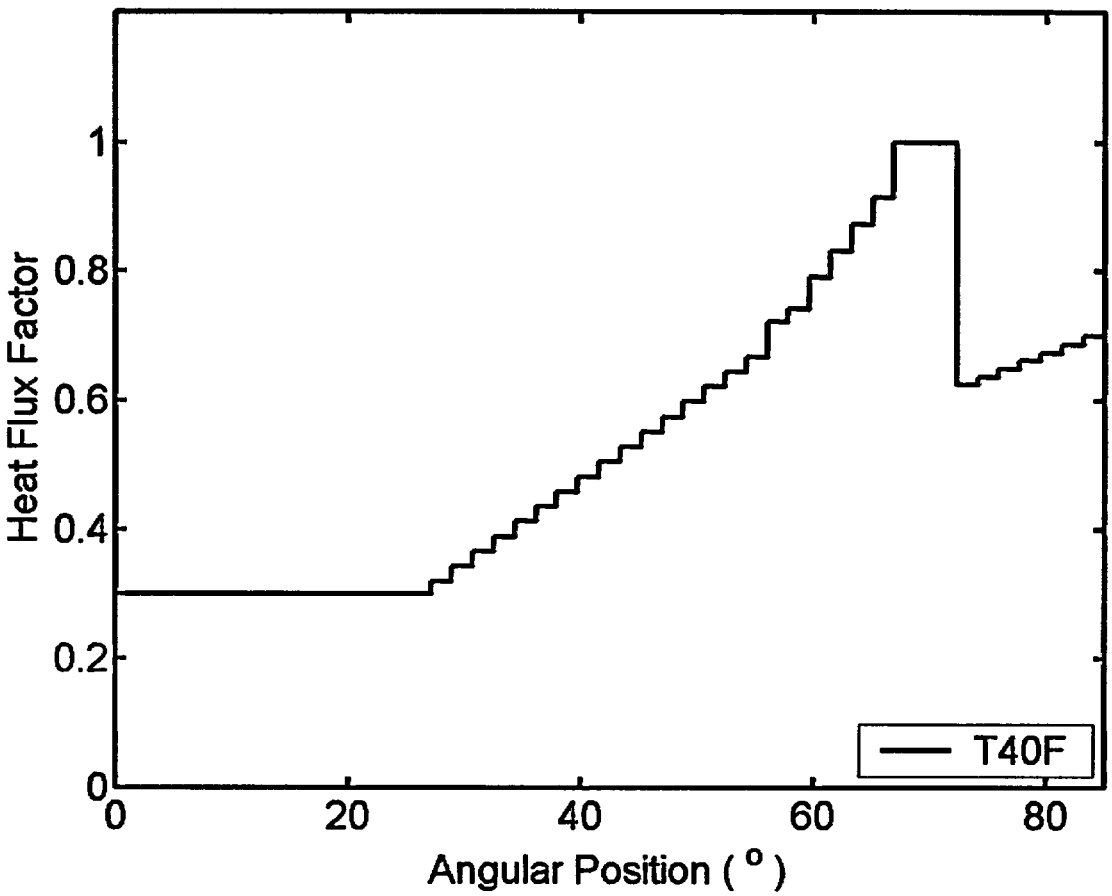

Figure A24.1. Power shape.

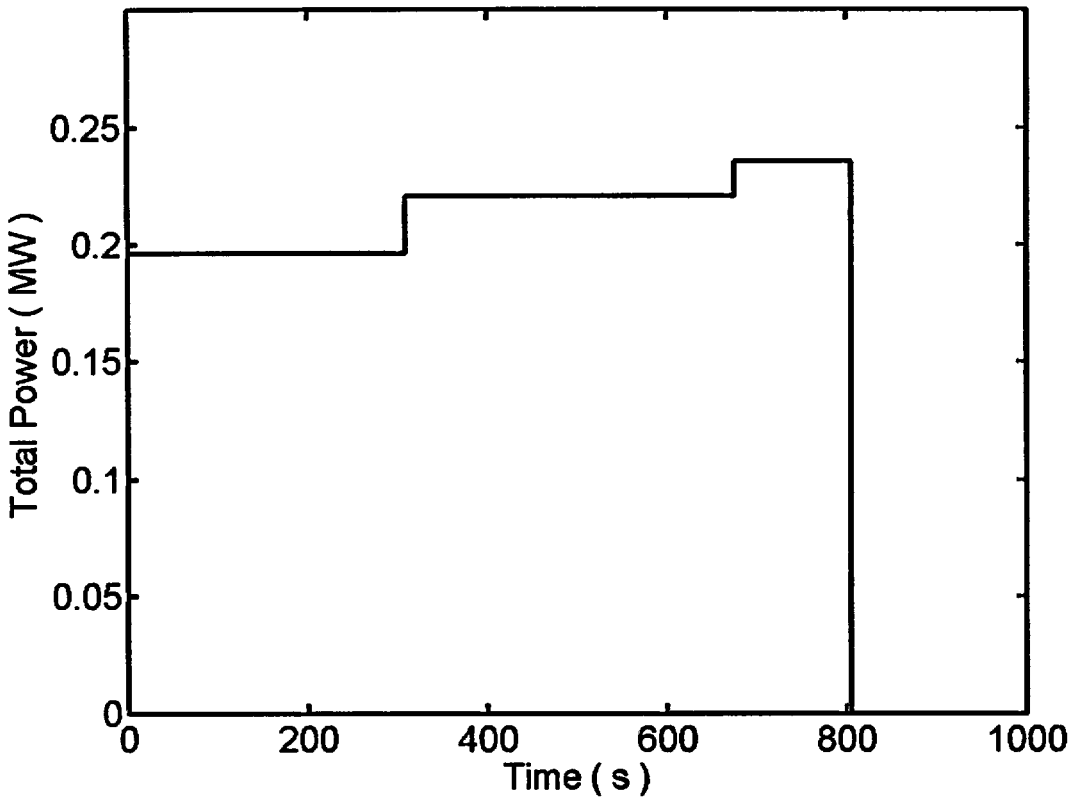

Figure A24.2. Total input power history.

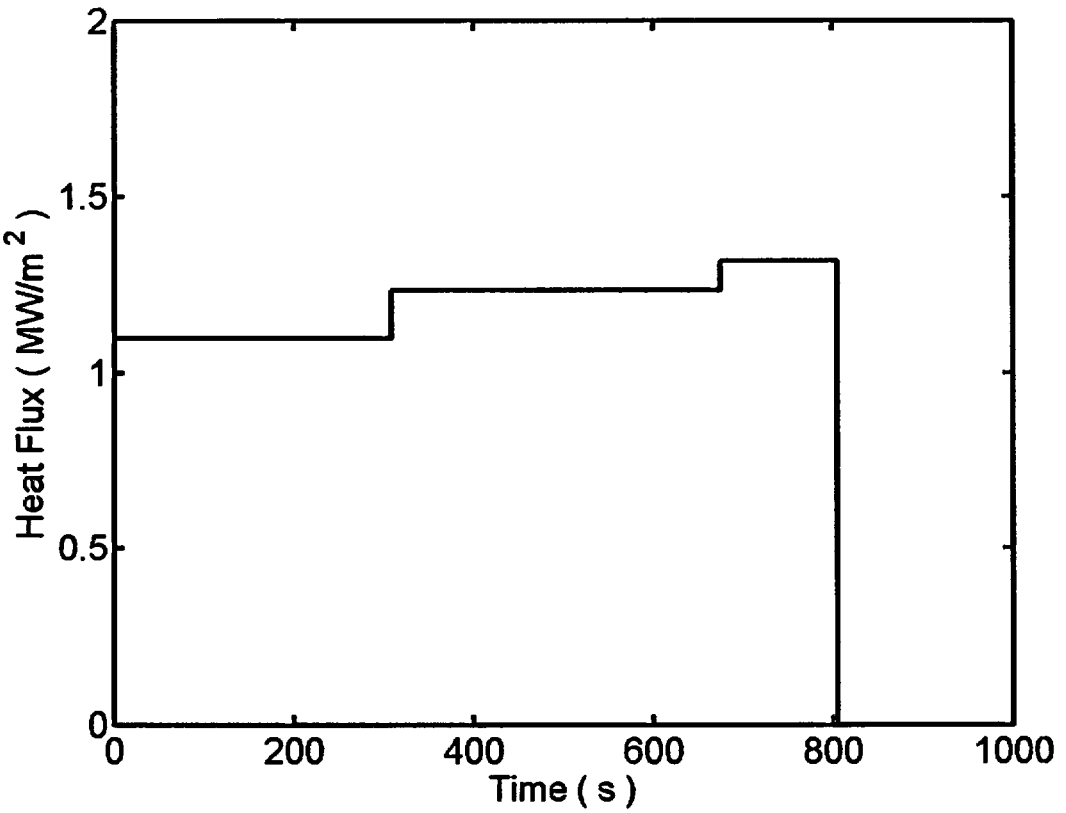

Figure A24.3. Heat flux history.

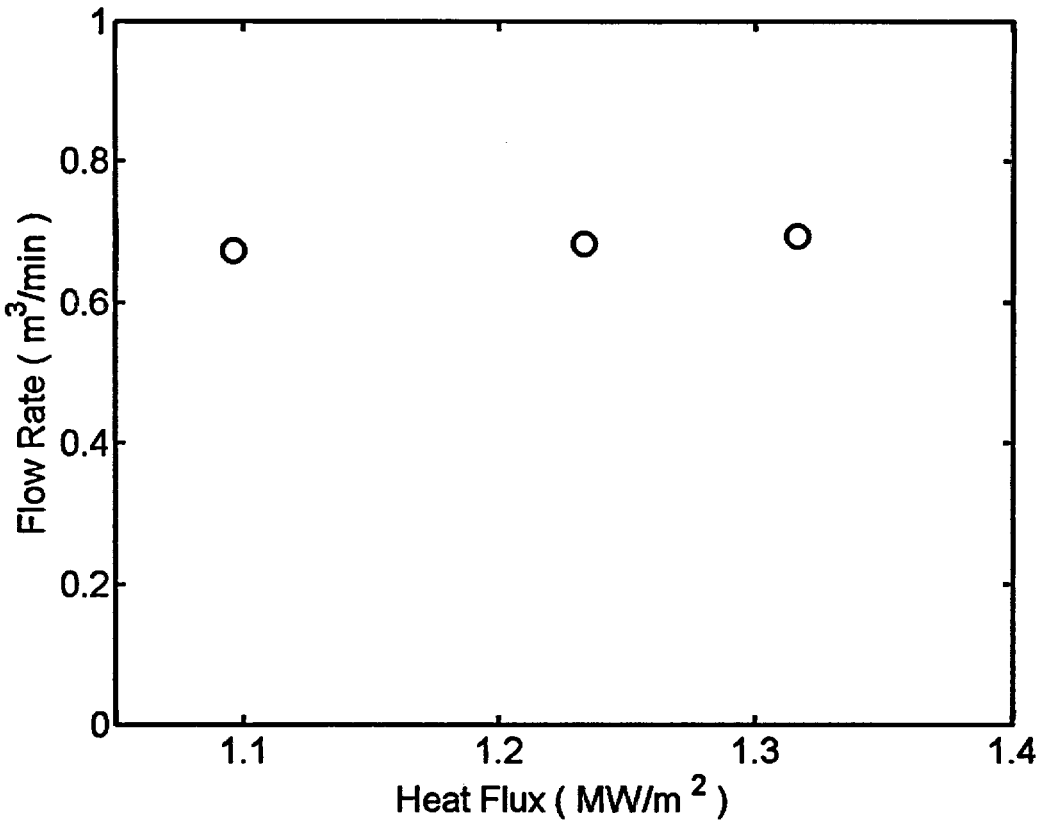

Figure A24.4. Flow rate vs. heat fluxes.

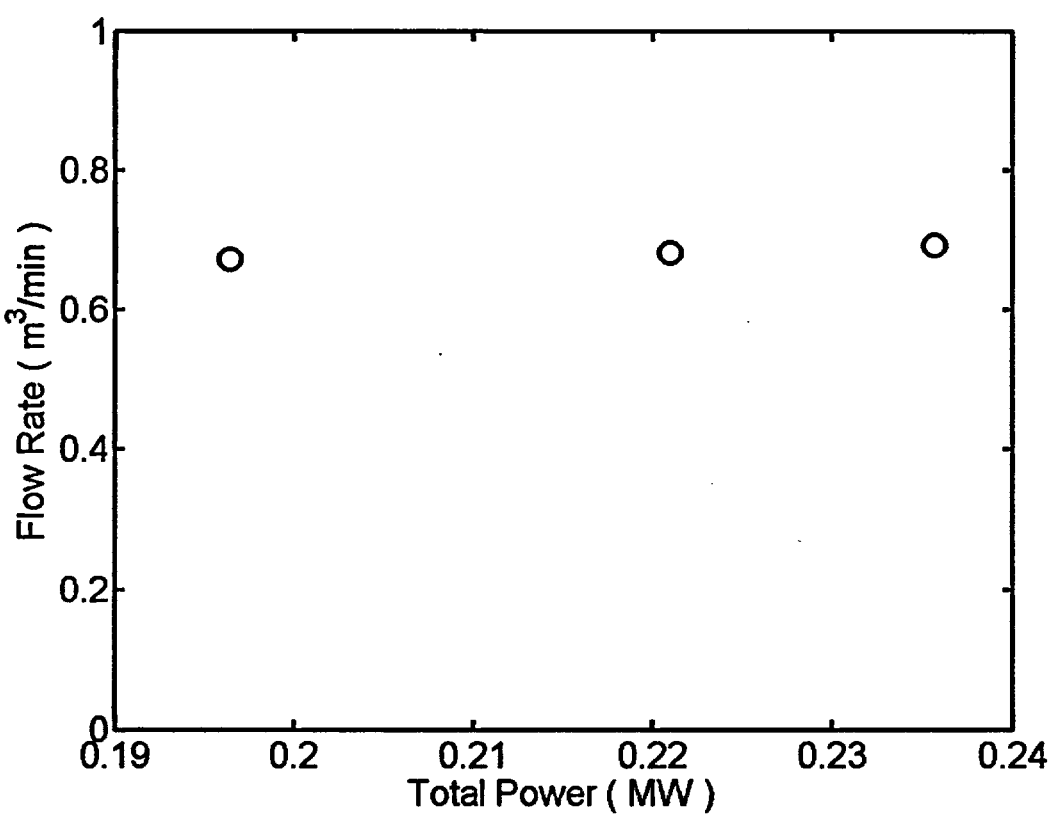

Figure A24.5. Flow rate vs. total input power.

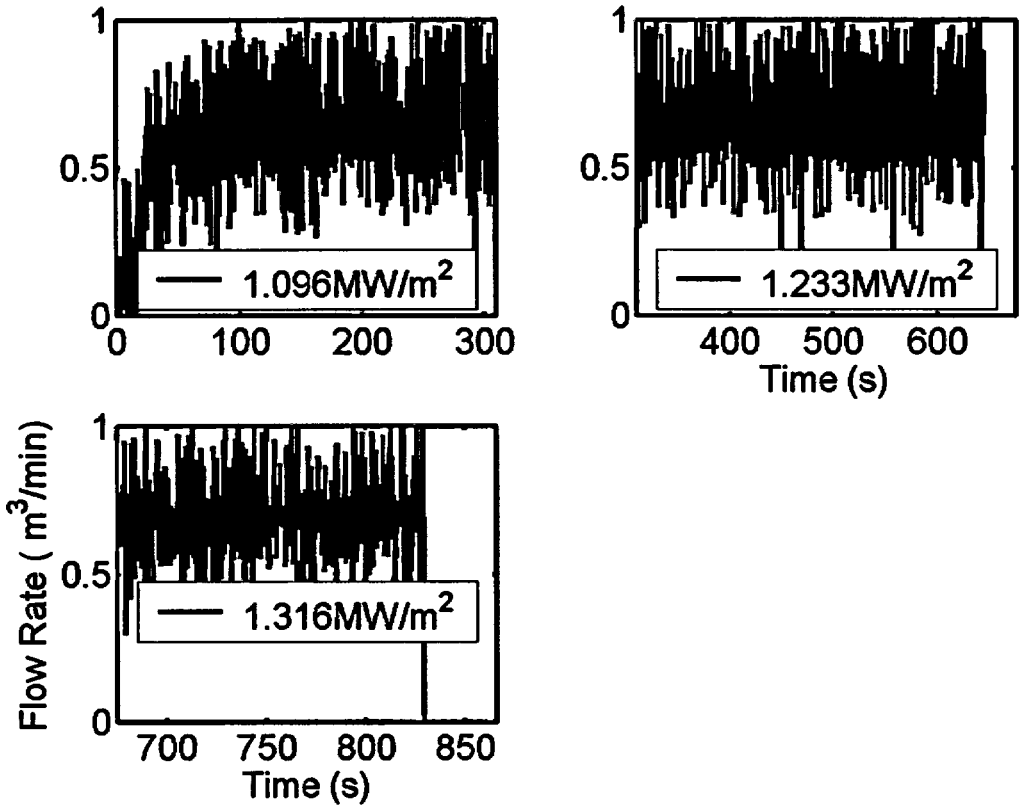

Figure A24.6. Flow rates at different heat fluxes.

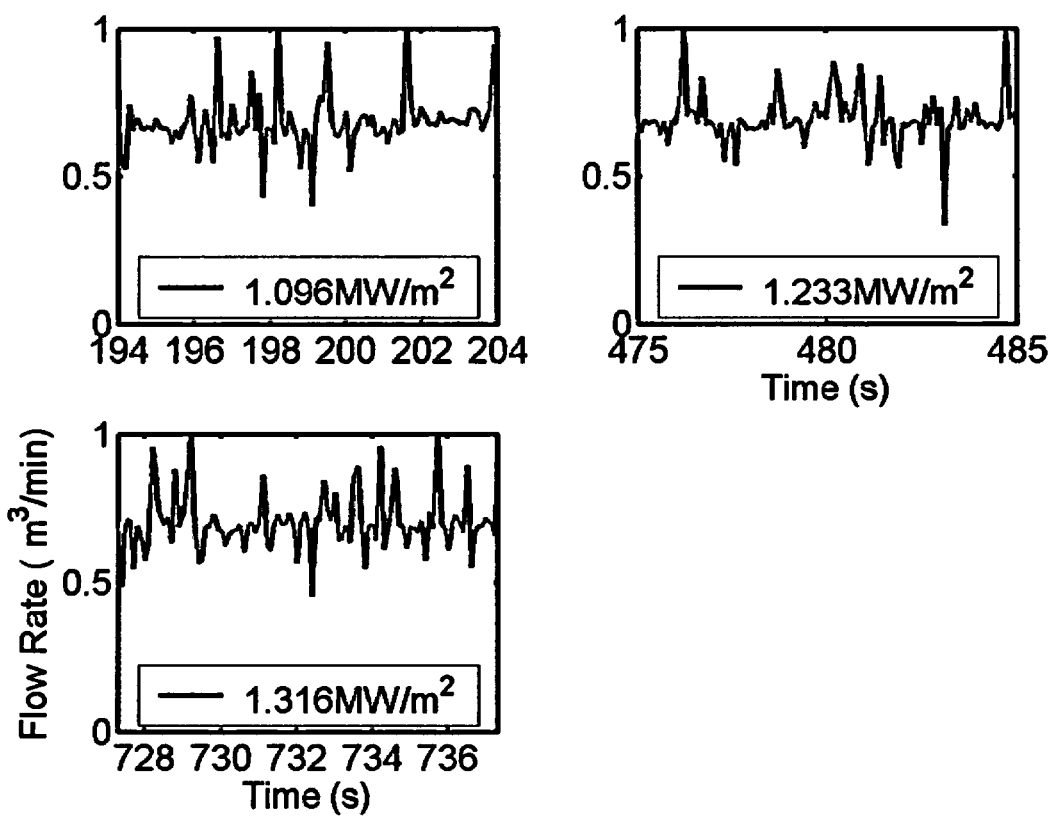

Figure A24.7. Flow rates at different heat fluxes at selected time intervals.

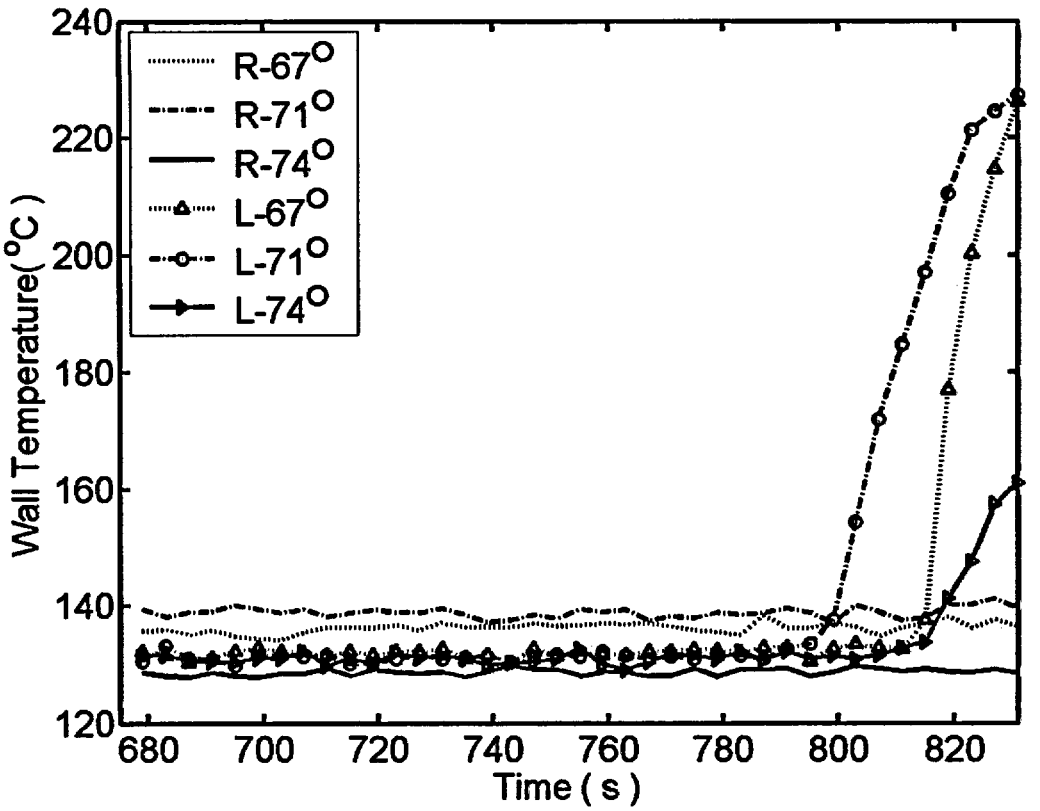

Figure A24.8. Temperature history at CHF.

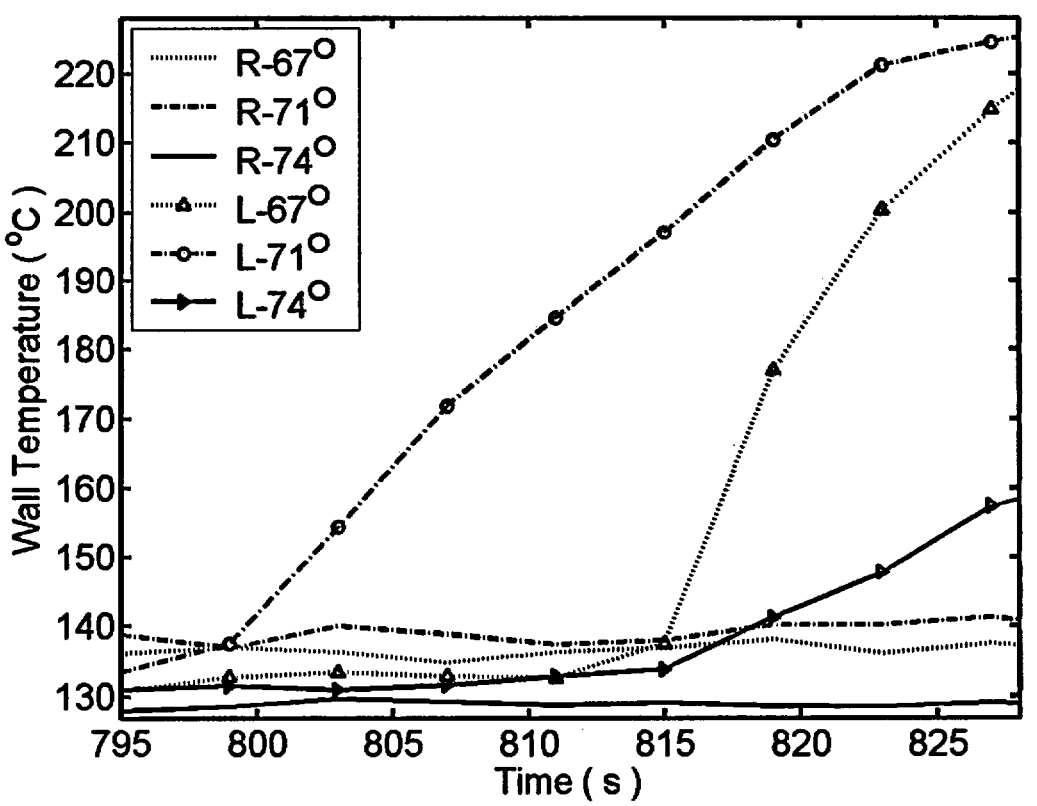

Figure A24.9. Temperature history at CHF in detail.

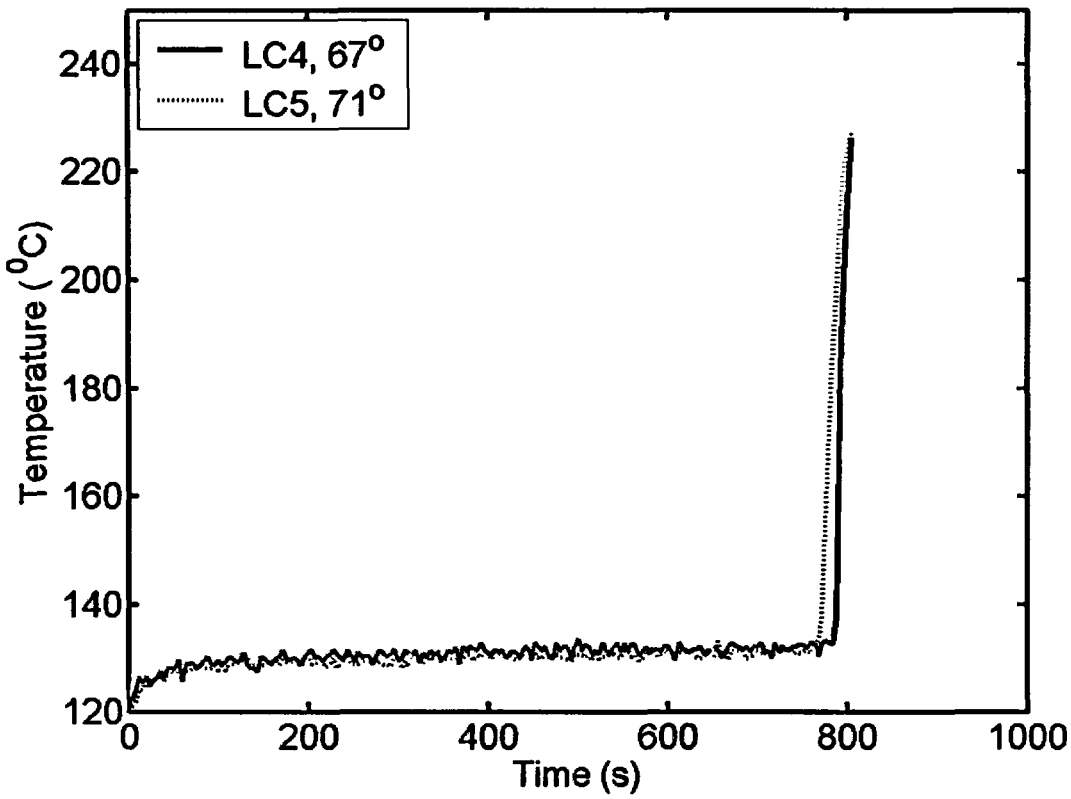

Figure A24.10 Wall temperature history measured by two thermocouples LC3 and RC4.

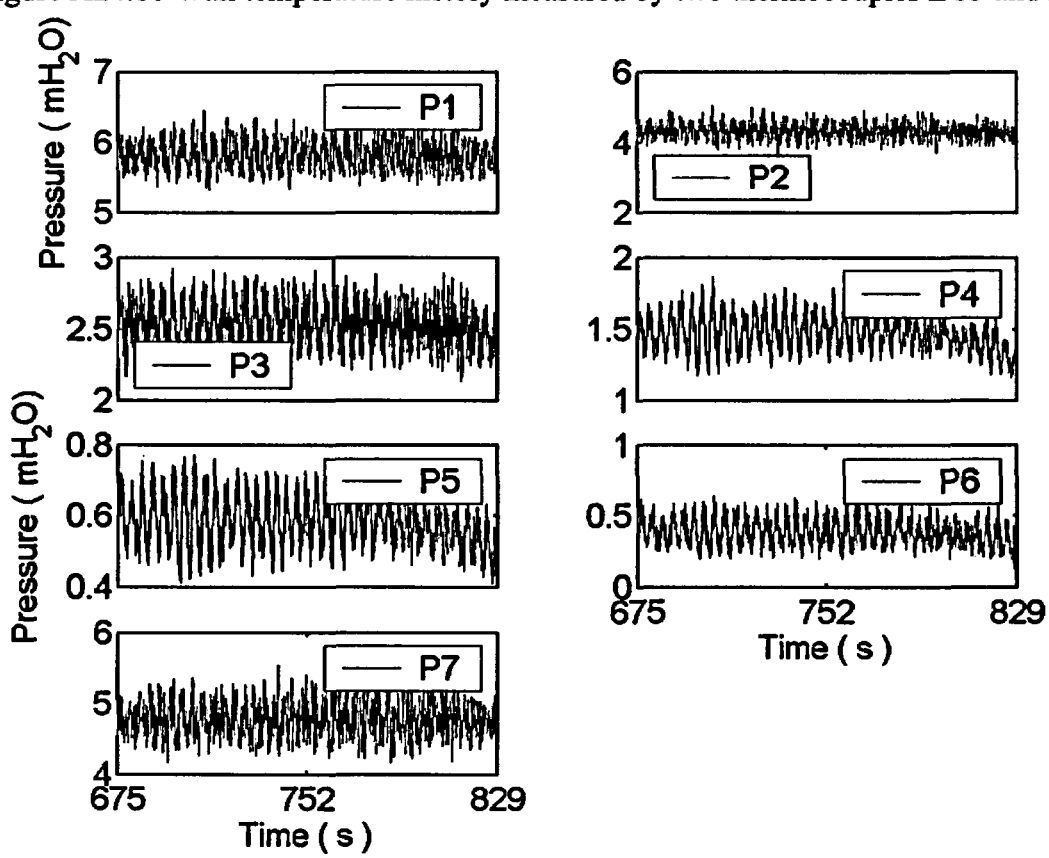

Figure A24.11. Pressure transducer data at q = 1.316 MW/m^2.

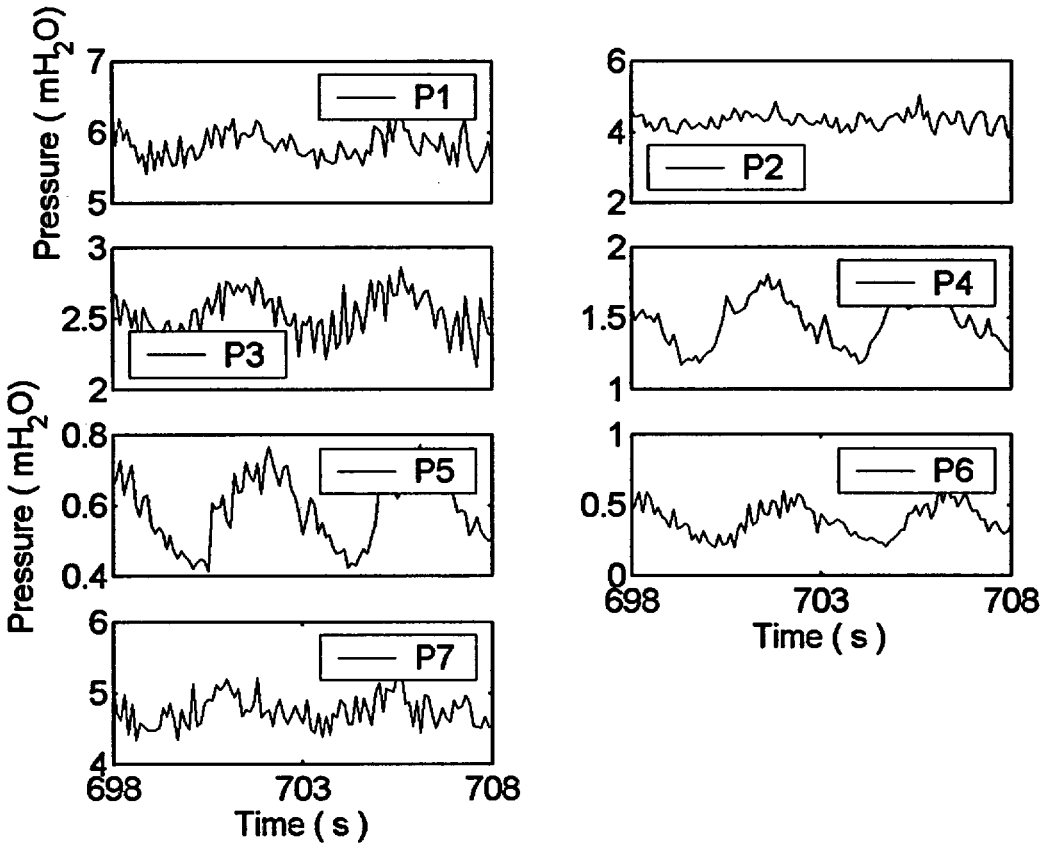

Figure A24.12. Pressure data in detail at q = 1.316 MW/m^2.

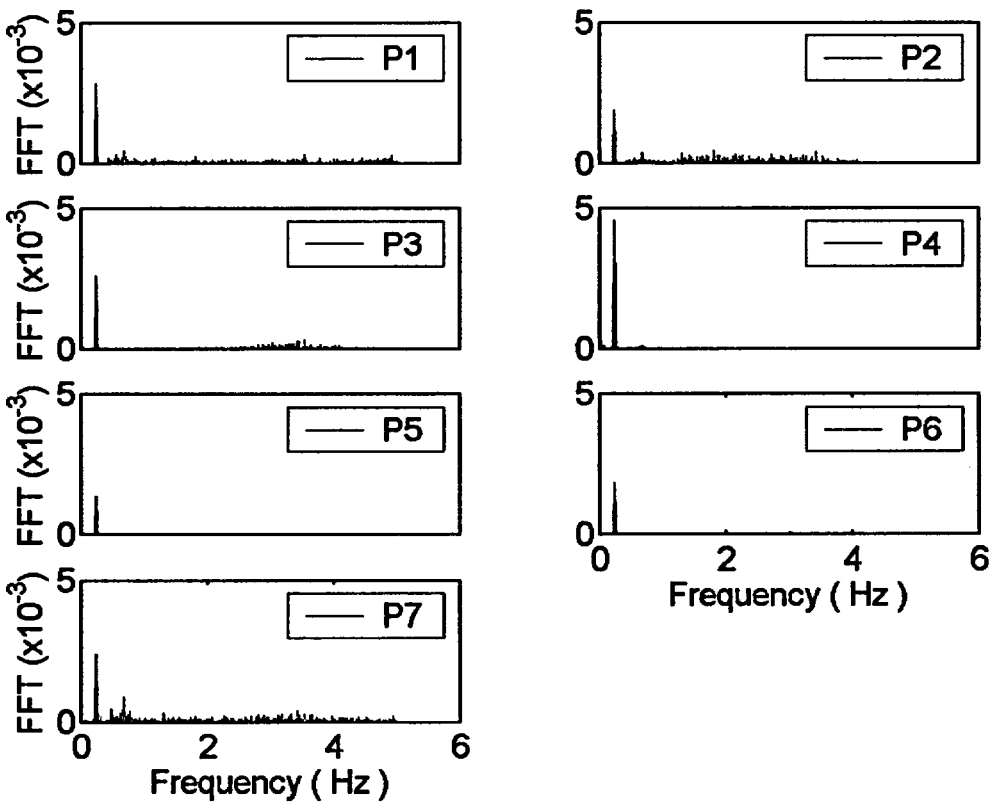

Figure A24.13. FFT of pressure time series at q = 1.316 MW/m^2.

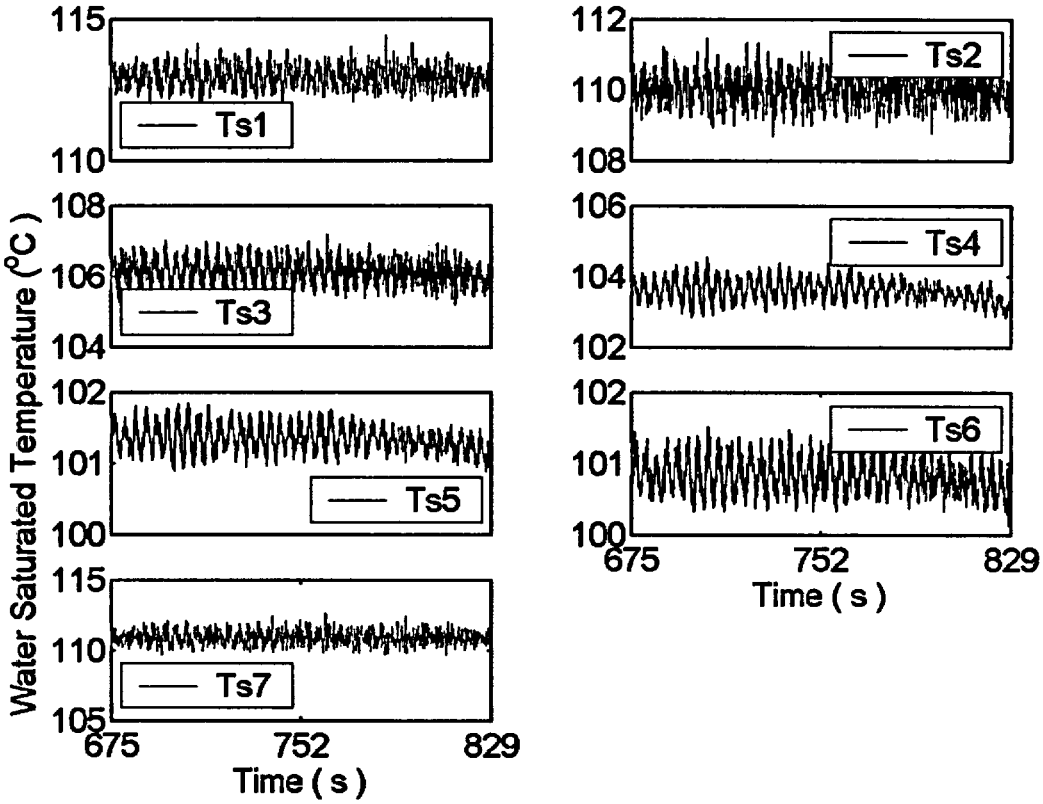

Figure A24.14. Water saturation temperature calculated from local pressure data at q = 1.316 MW/m^2.

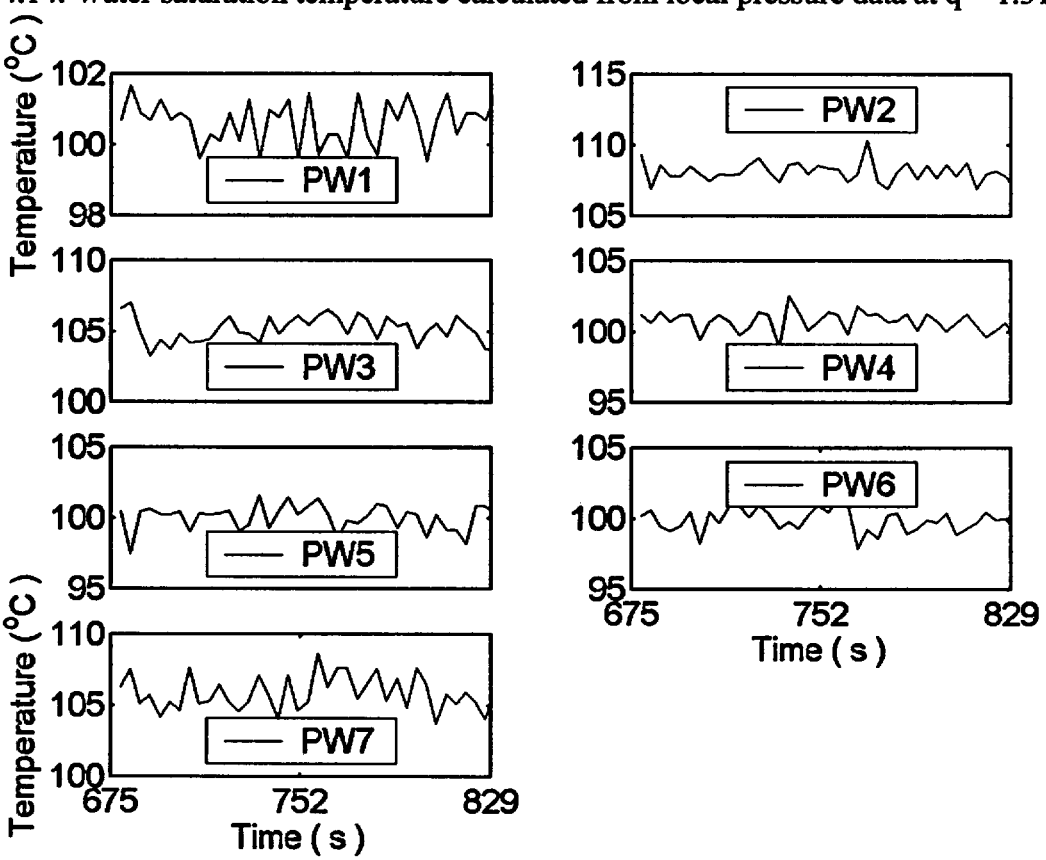

Figure A24.15. Water temperature measured at location of pressure transducer at q = 1.316 MW/m^2.

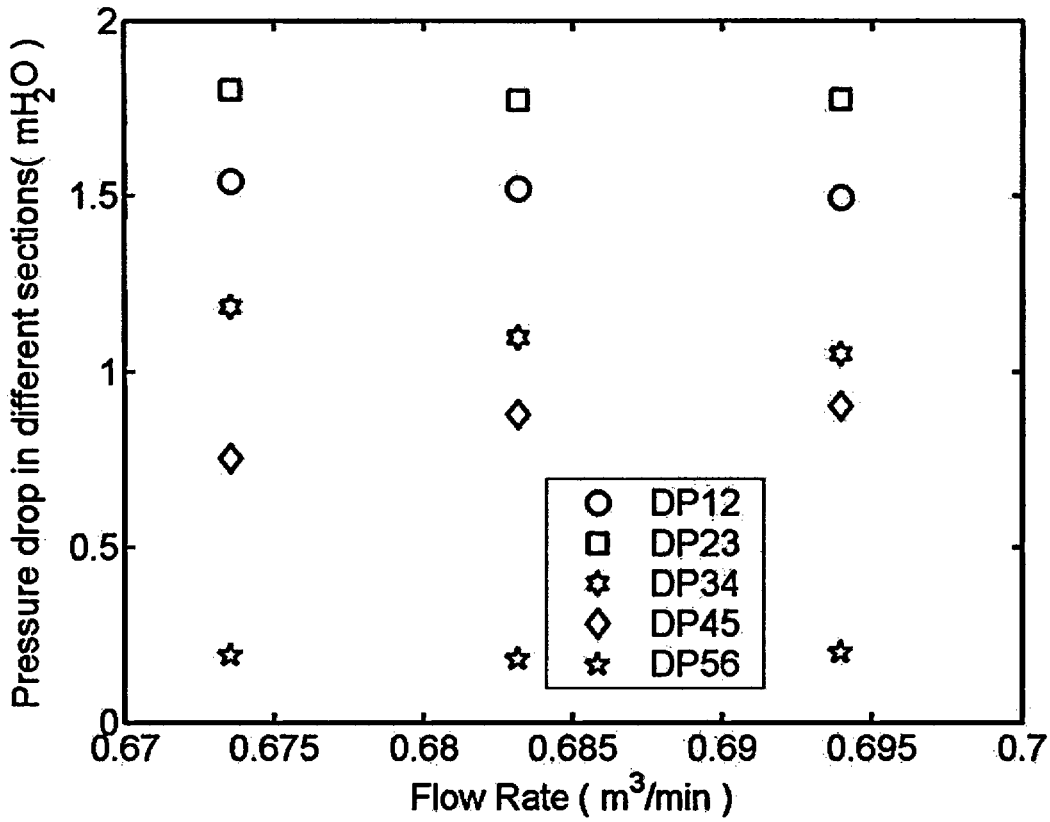

Figure A24.16 Pressure drop vs. flow rate at different heat fluxes.

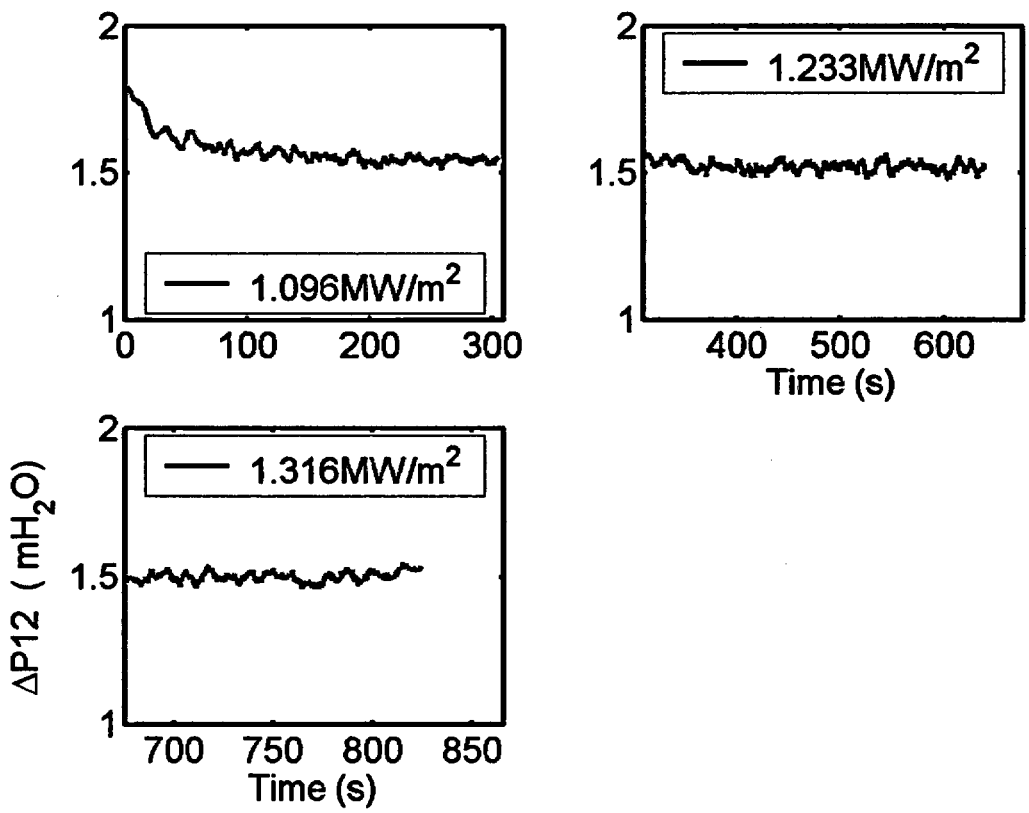

Figure A24.17. Differential Pressure ΔP12 at different heat fluxes.

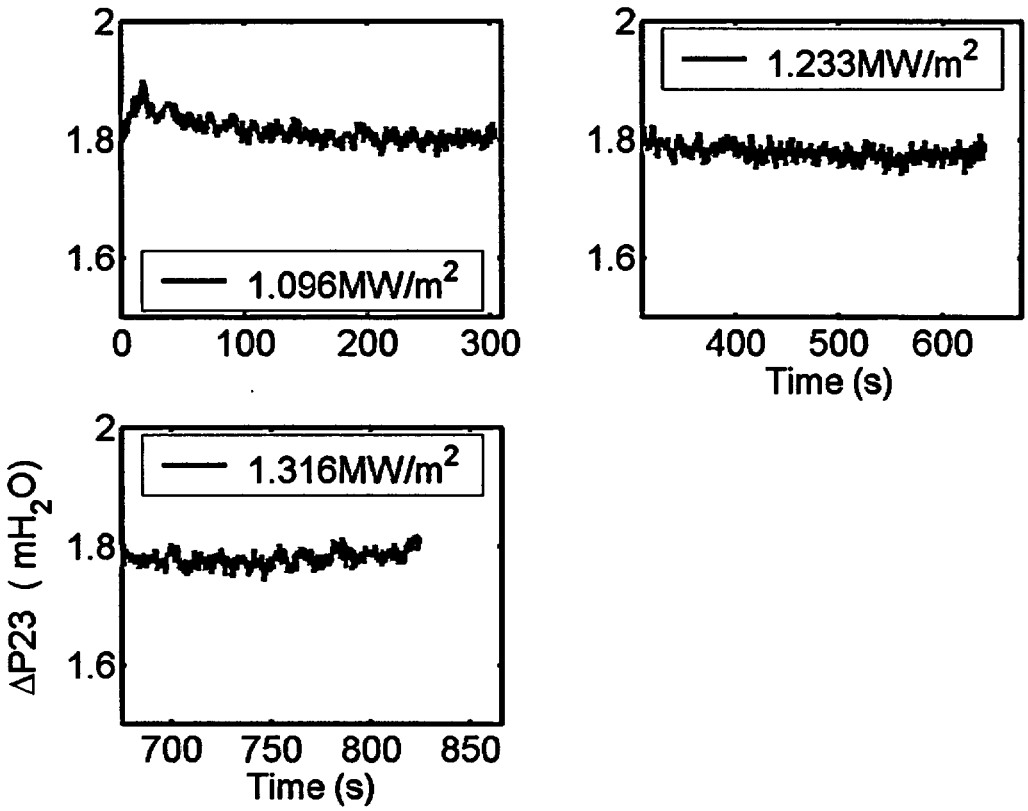

Figure A24.18. Differential Pressure ΔP23 at different heat fluxes.

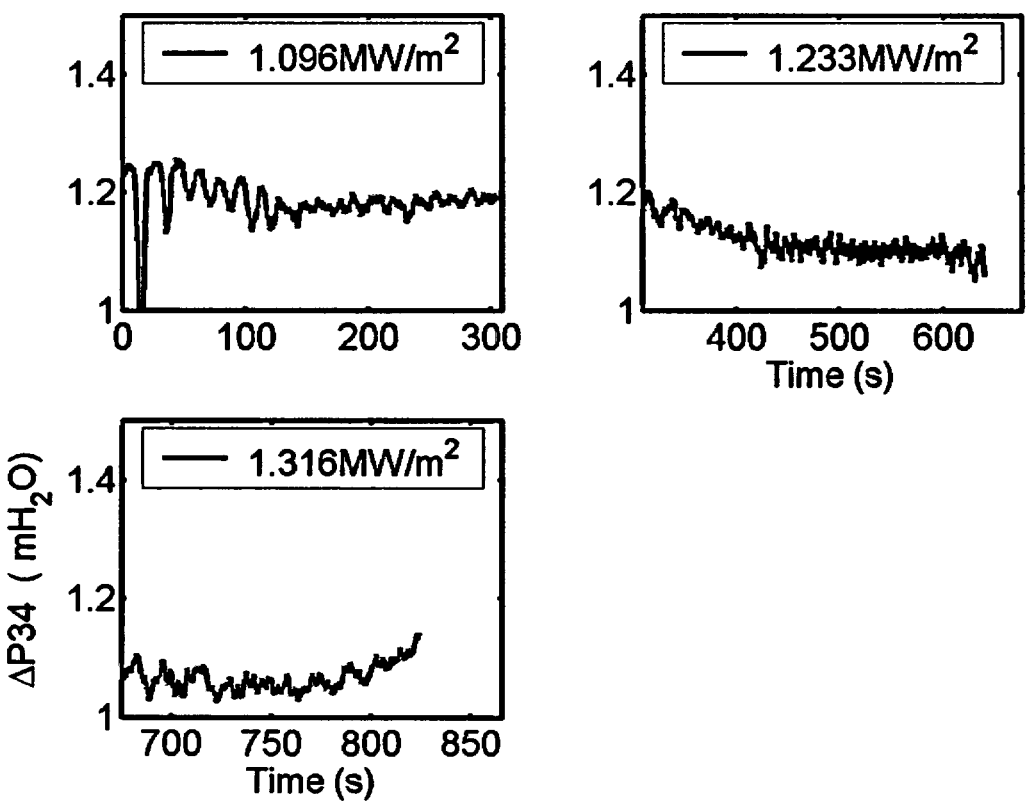

Figure A24.19. Differential Pressure ΔP34 at different heat fluxes.

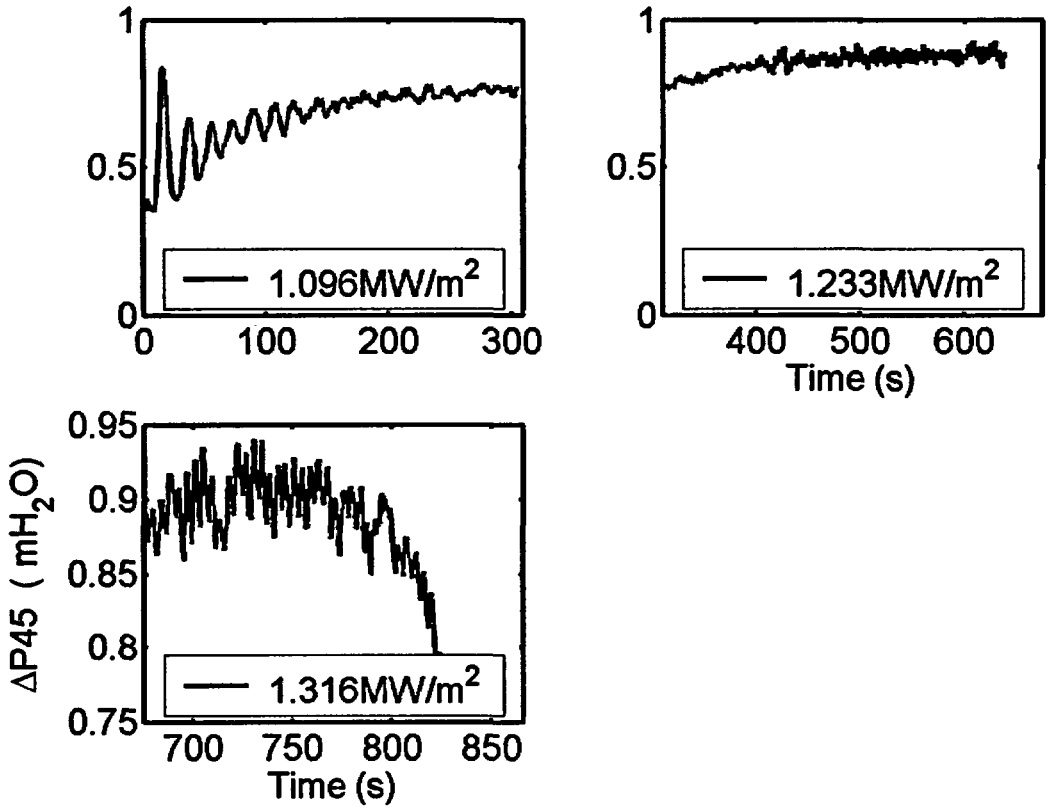

Figure A24.20. Differential Pressure ΔP45 at different heat fluxes.

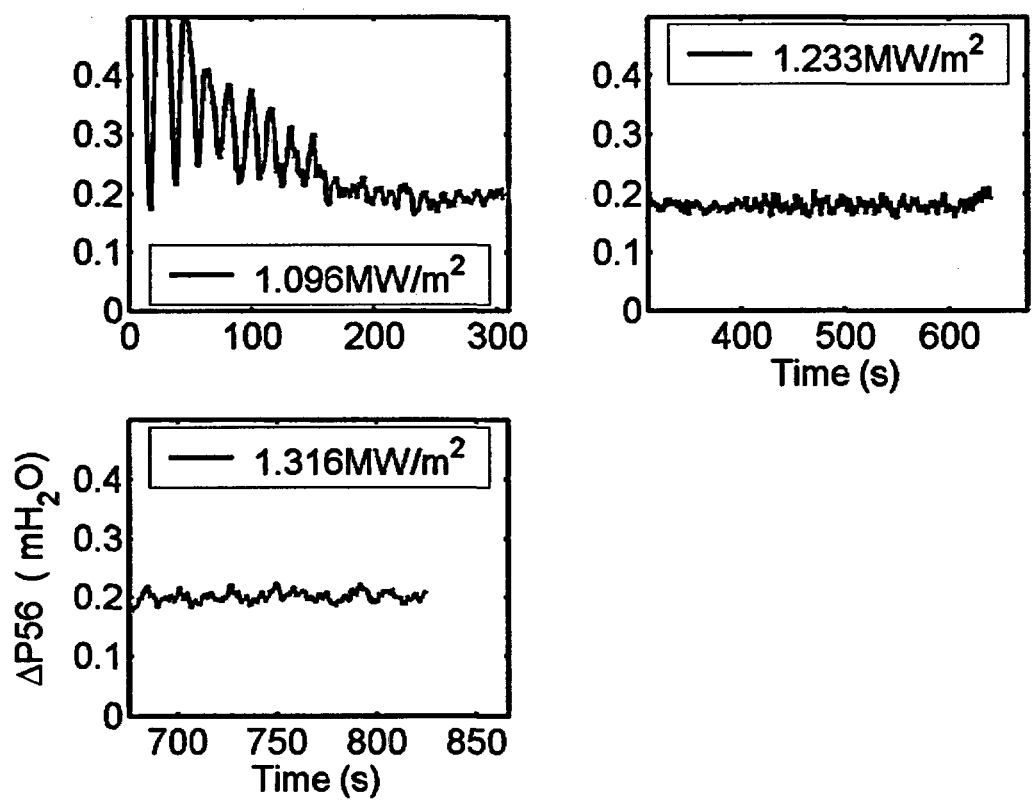

Figure A24.21 Differential Pressure ΔP56 at different heat fluxes.

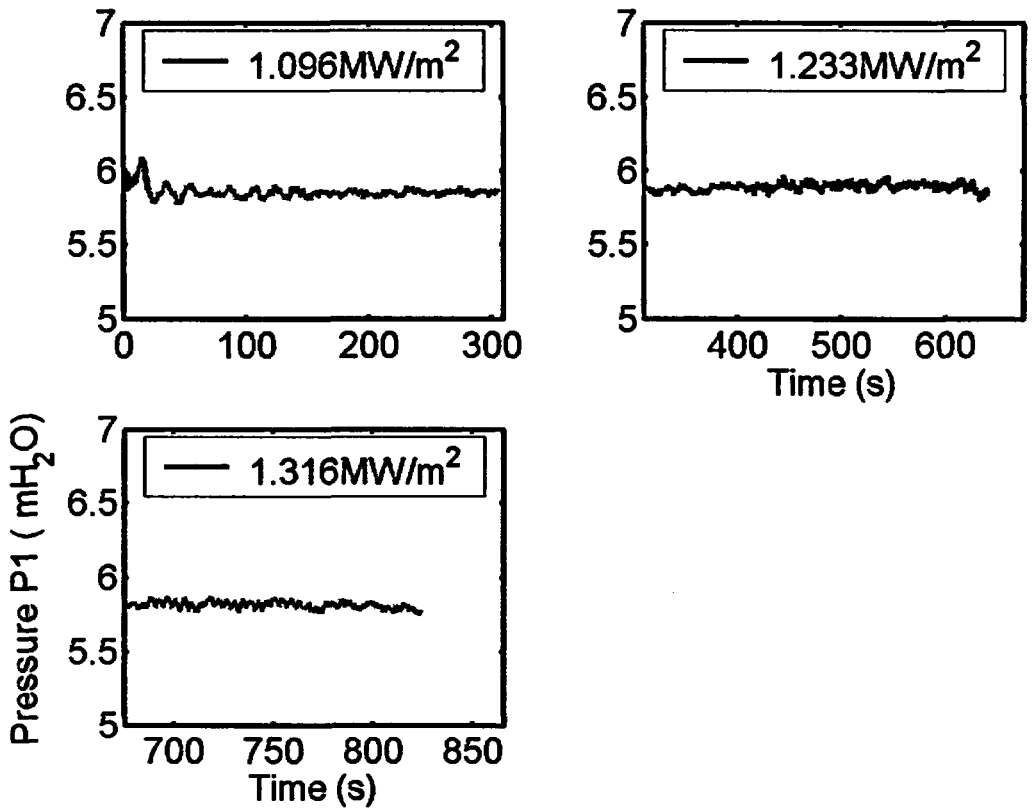

Figure A24.22 Pressure P1 at different heat fluxes.

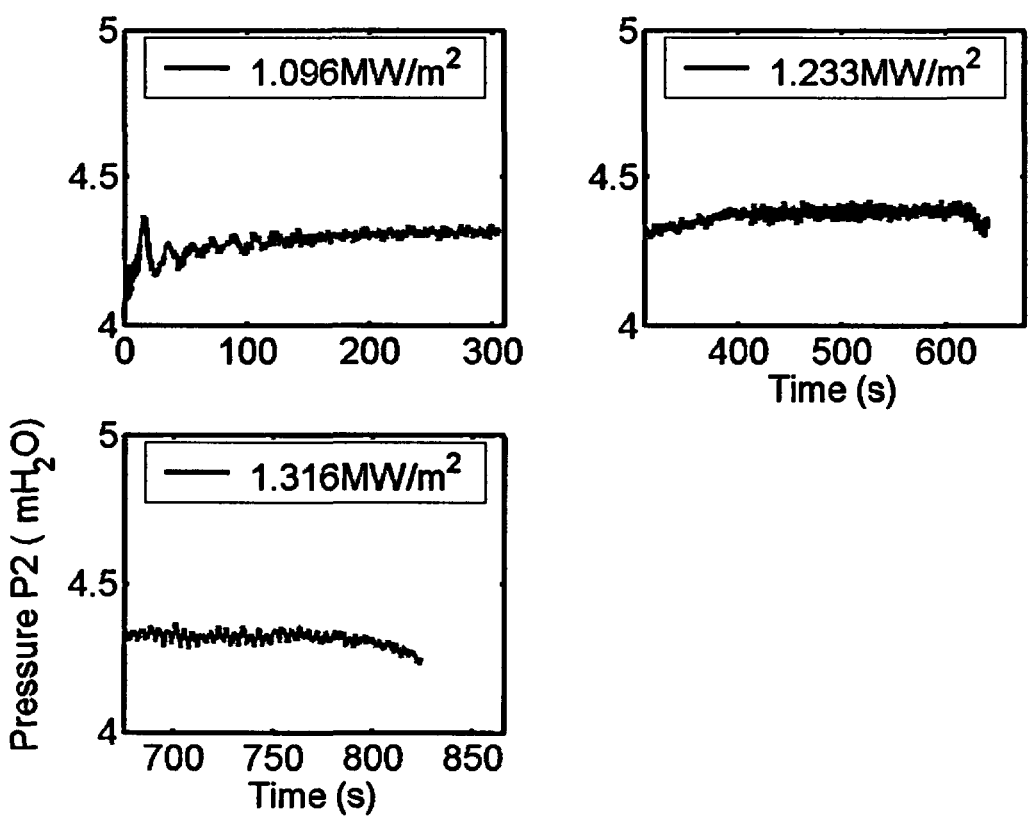

Figure A24.23 Pressure P2 at different heat fluxes.

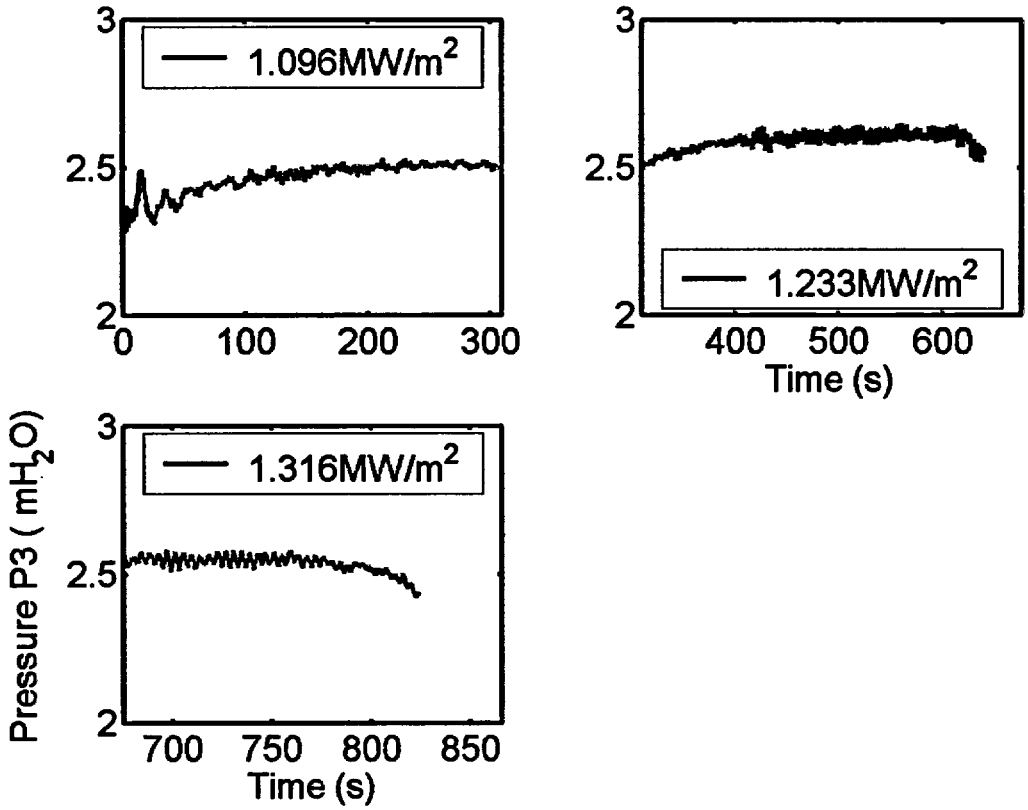

Figure A24.24 Pressure P3 at different heat fluxes.

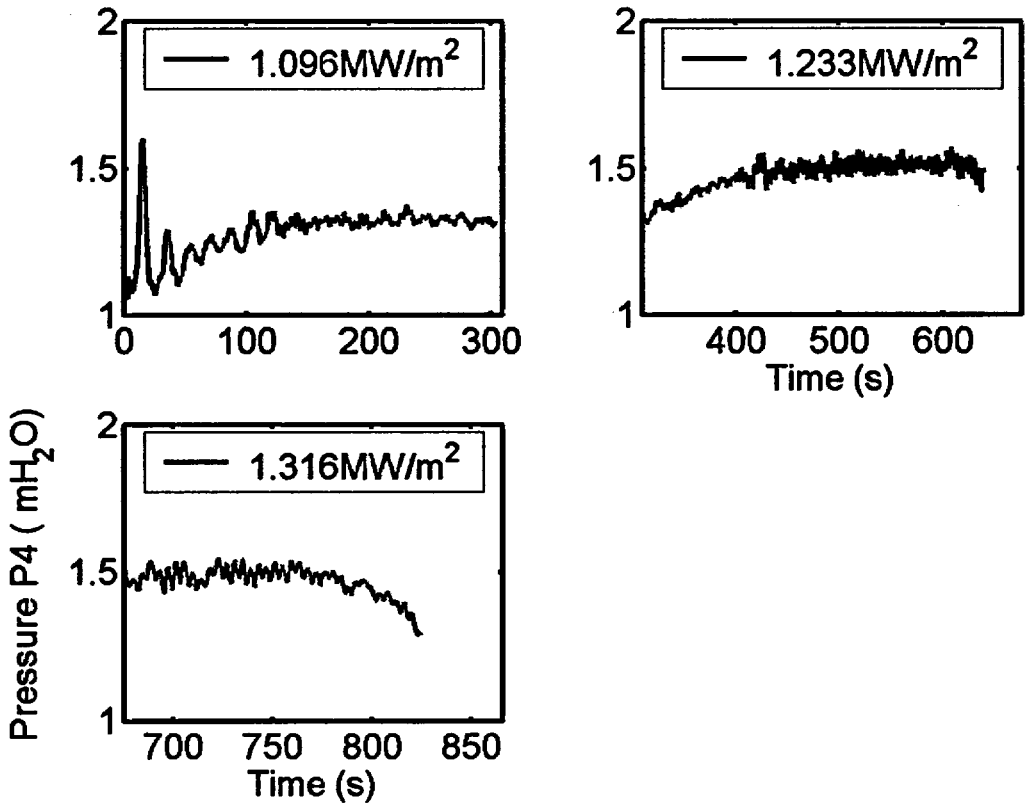

Figure 24.25 Pressure P4 at different heat fluxes.

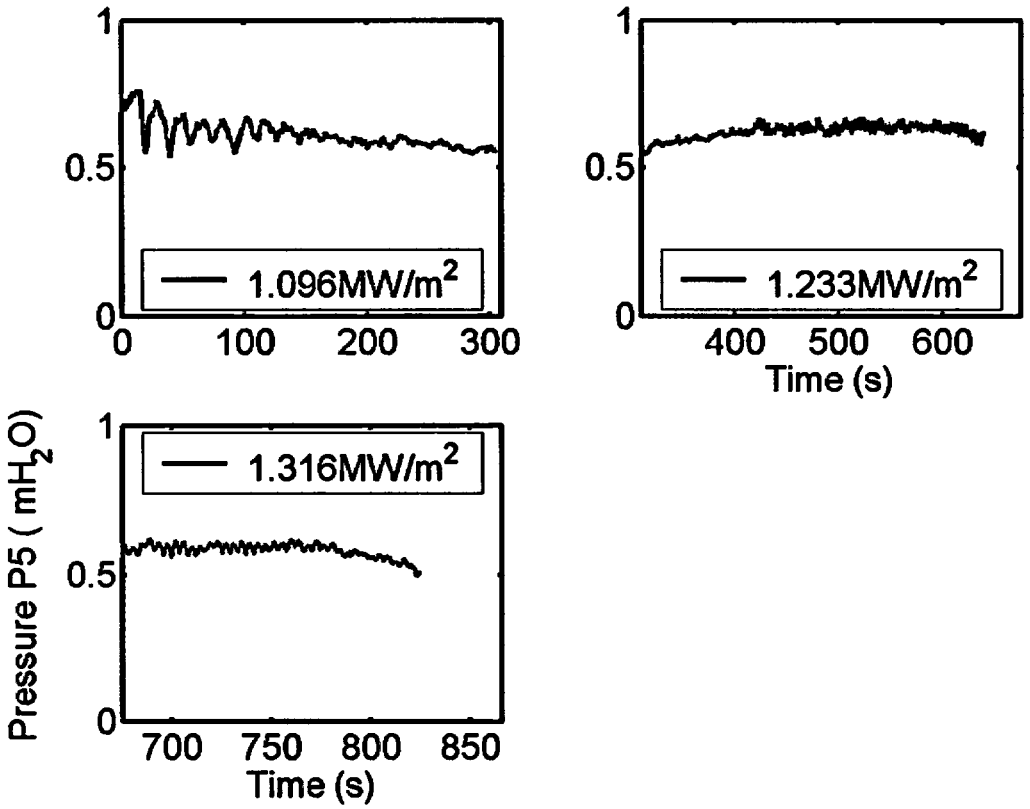

Figure A24.26 Pressure P5 at different heat fluxes.

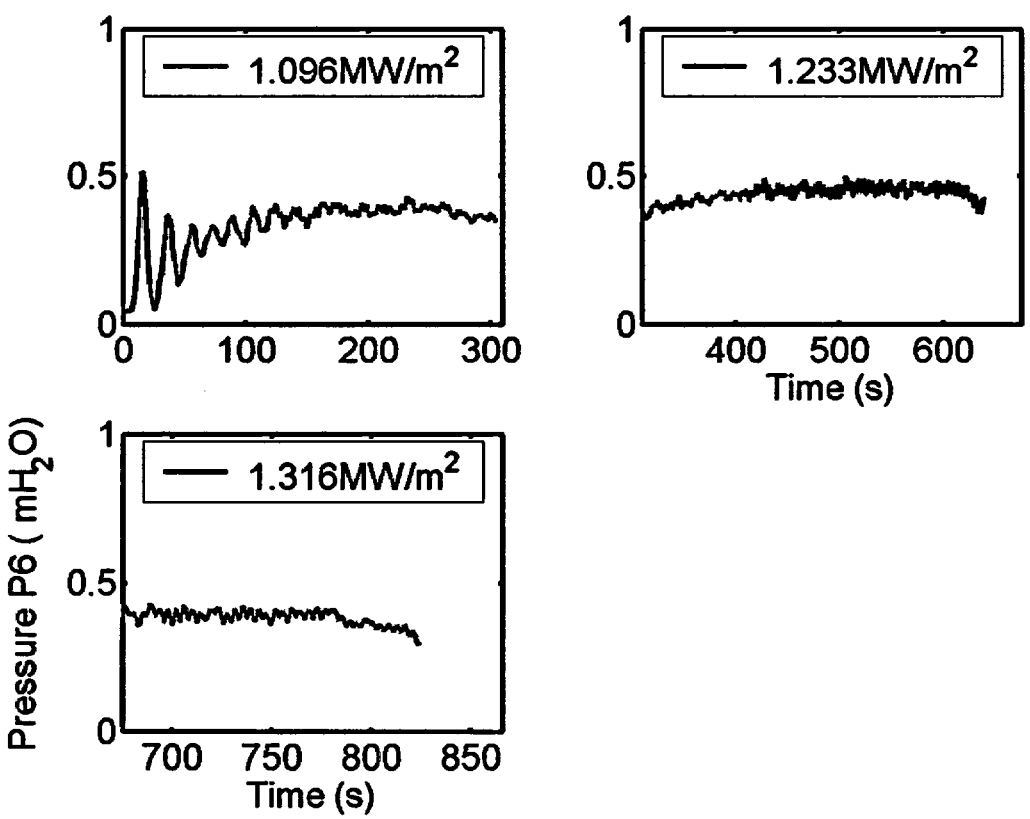

Figure A24.27 Pressure P6 at different heat fluxes.

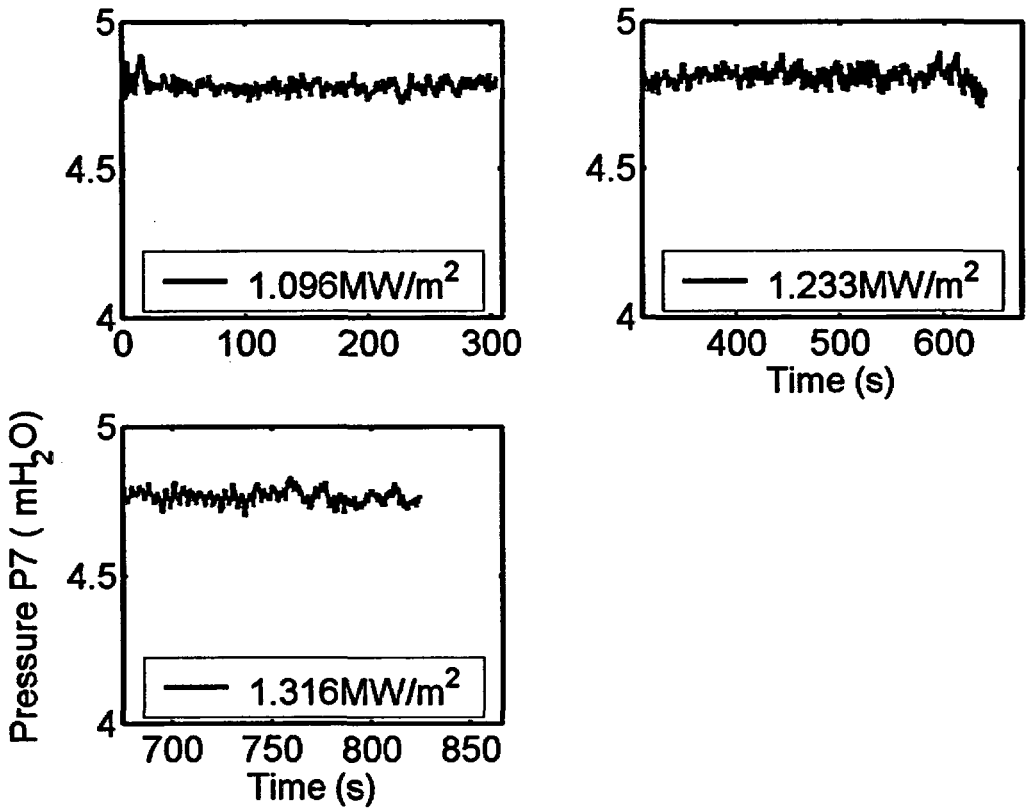

Figure A24.28 Pressure P7 at different heat fluxes.

ID #25

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T48A	1507	RC7	80	A	11/10/2002/19:00

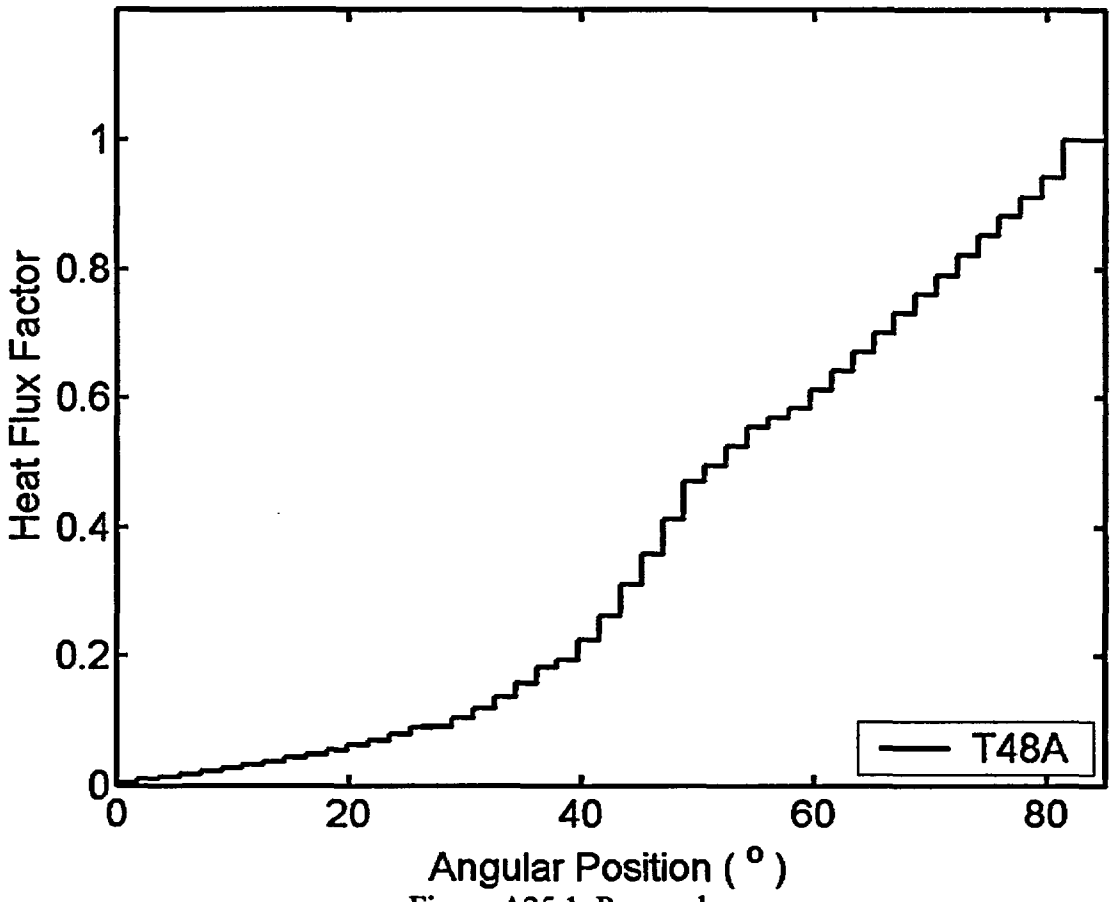

Figure A25.1. Power shape.

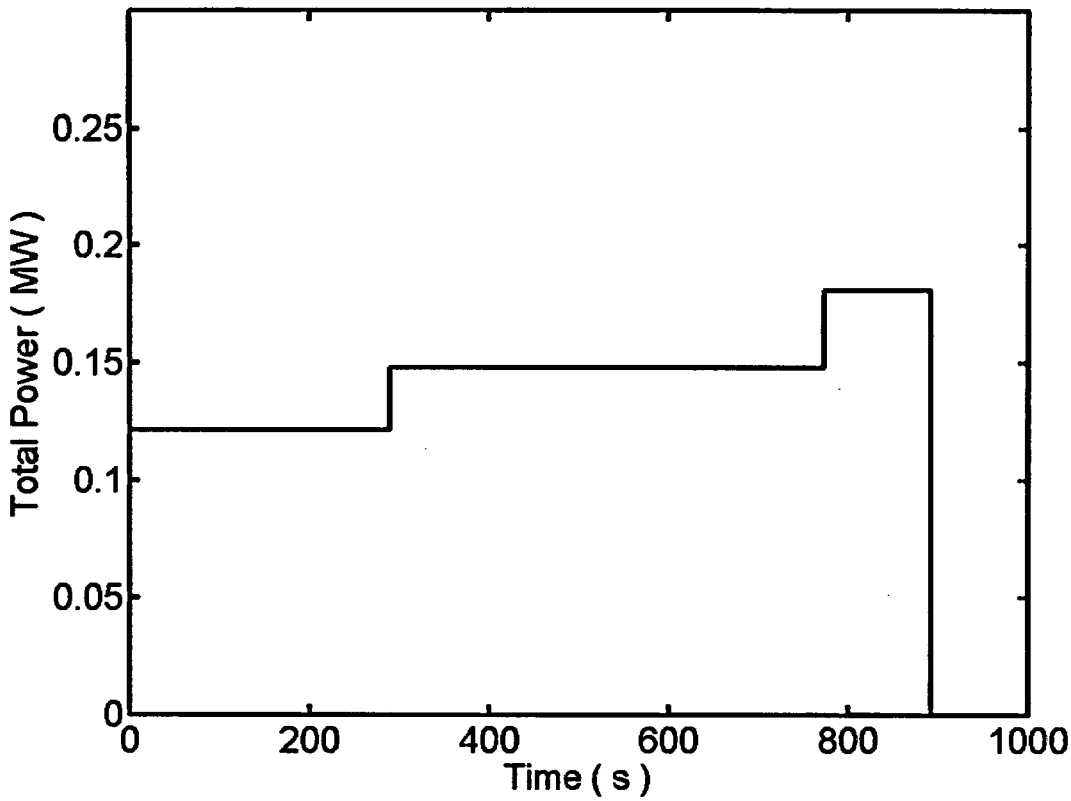

Figure A25.2. Total input power history.

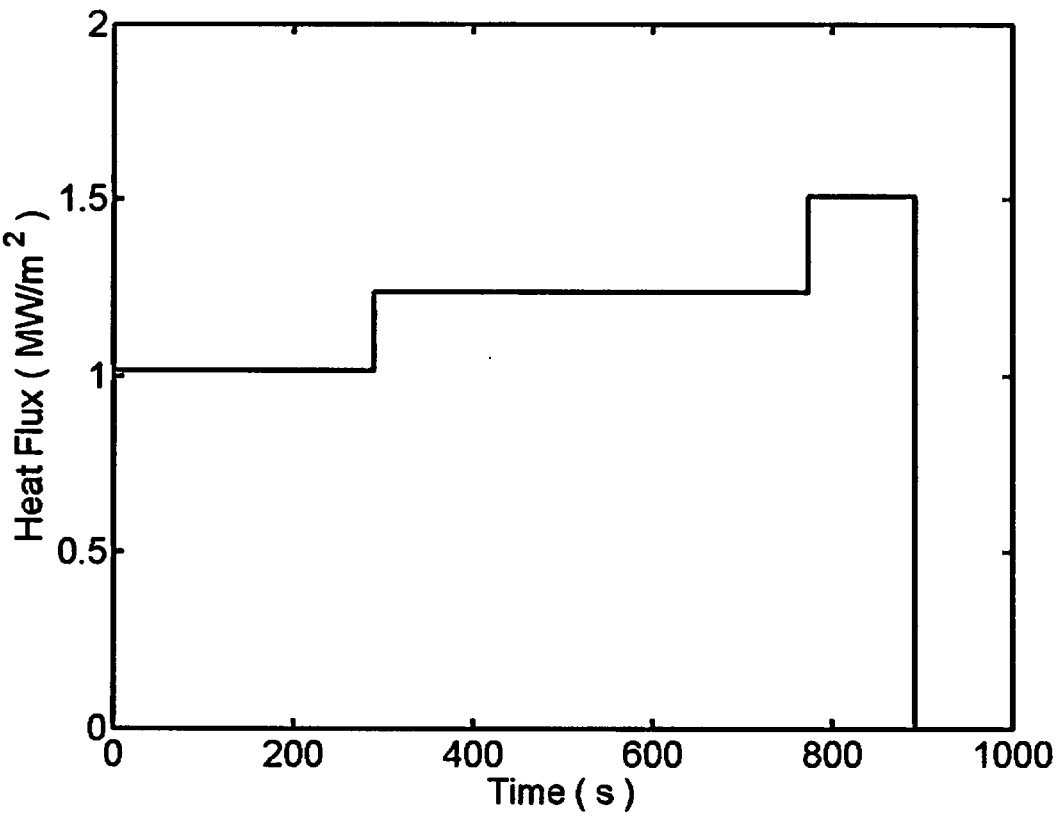

Figure A25.3. Heat flux history.

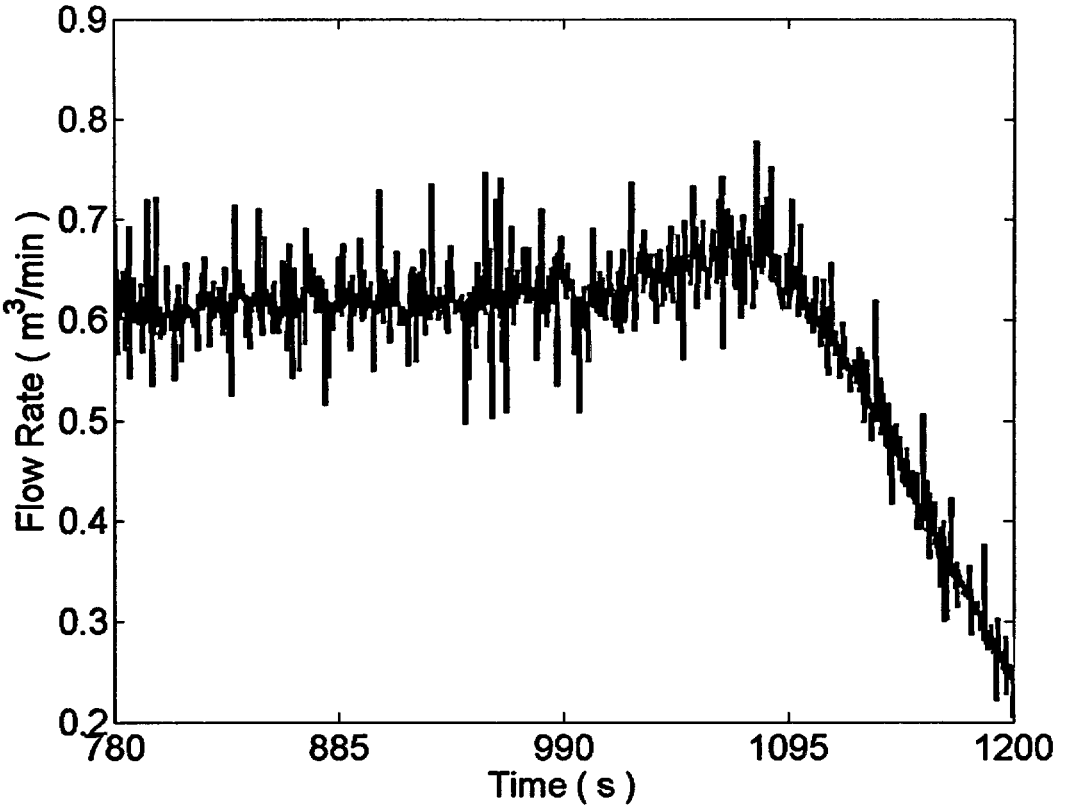

Figure A25.4. Flow rates at q = 1.507 MW/m^2 and burn out.

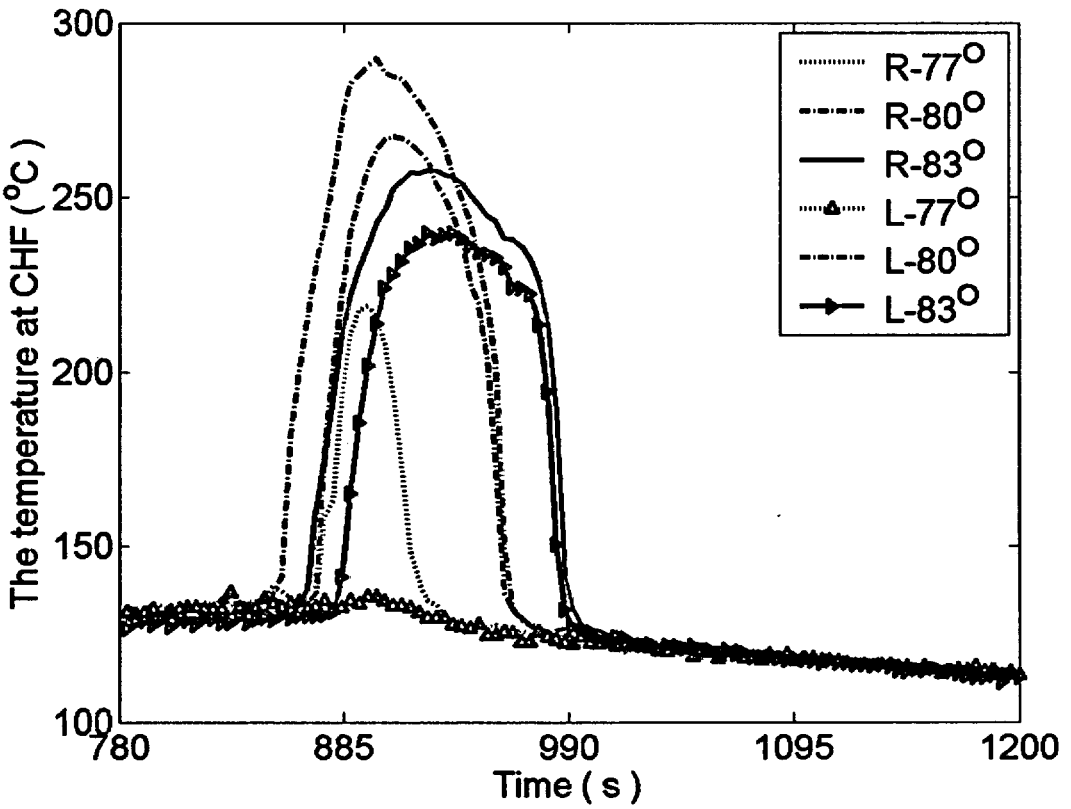

Figure A25.5. Temperature history at CHF.

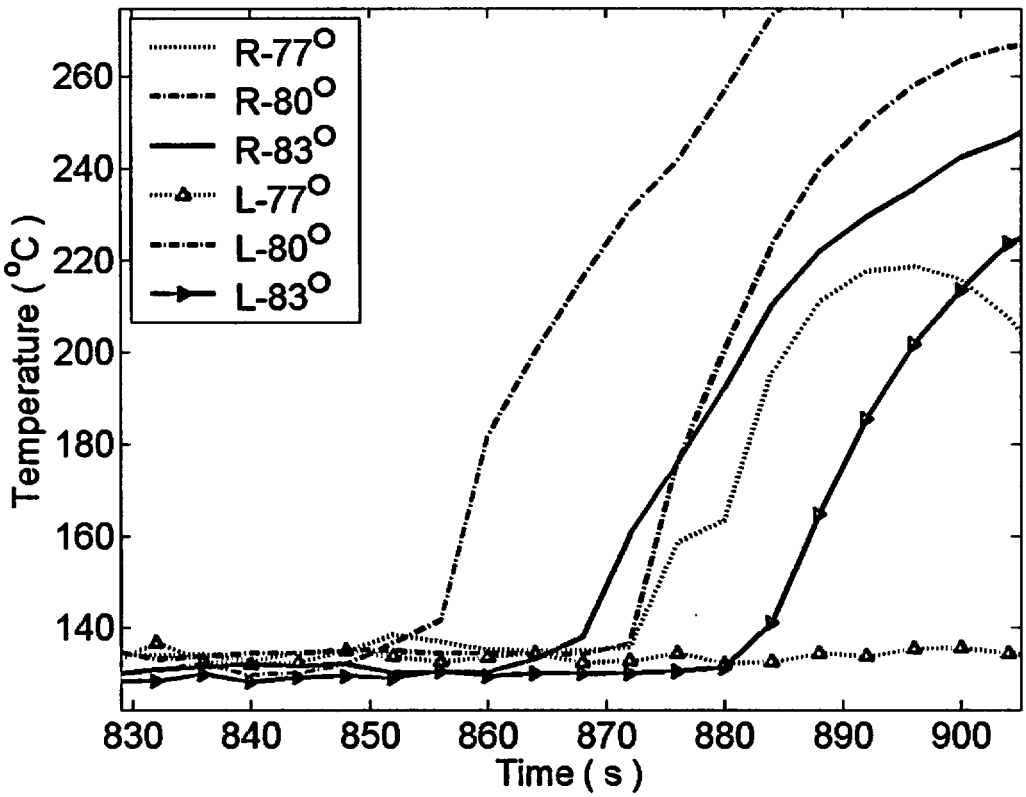

Figure A25.6. Temperature history at CHF in detail.

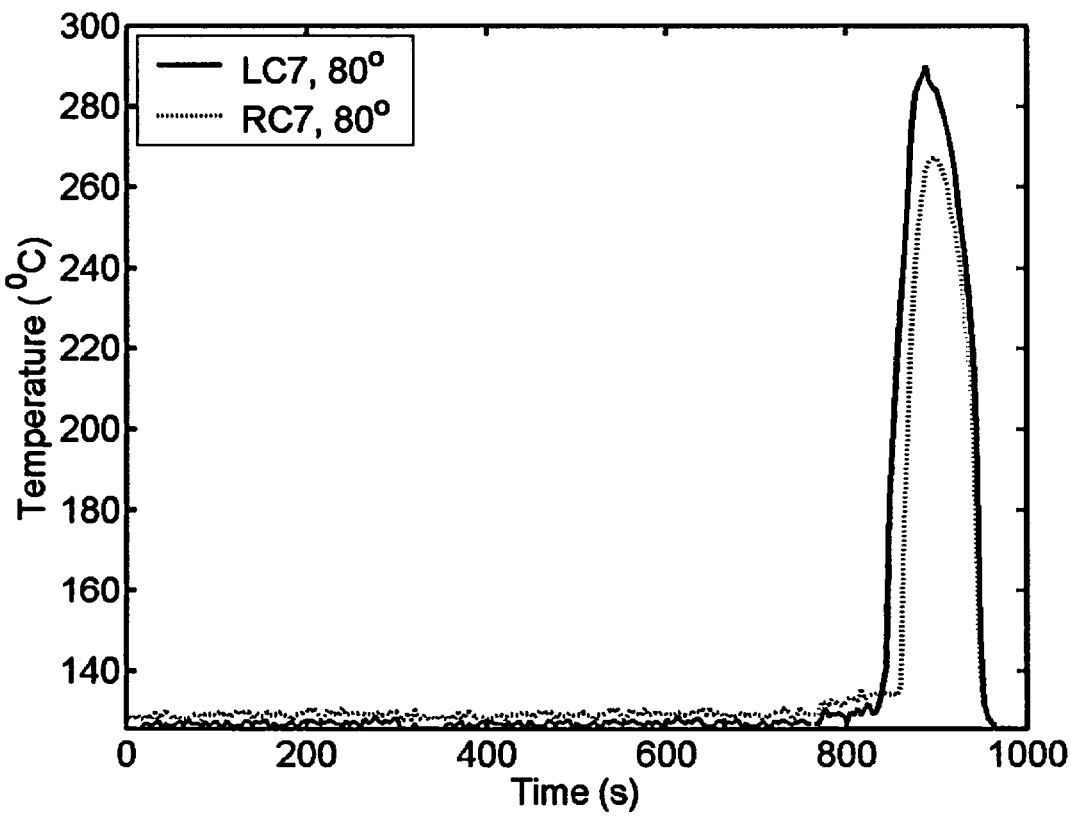

Figure A25.7. Wall temperature history measured by two thermocouples LC7 and RC7.

ID #26

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T48A	1480	RC8	83	B	11/19/2002/10:30

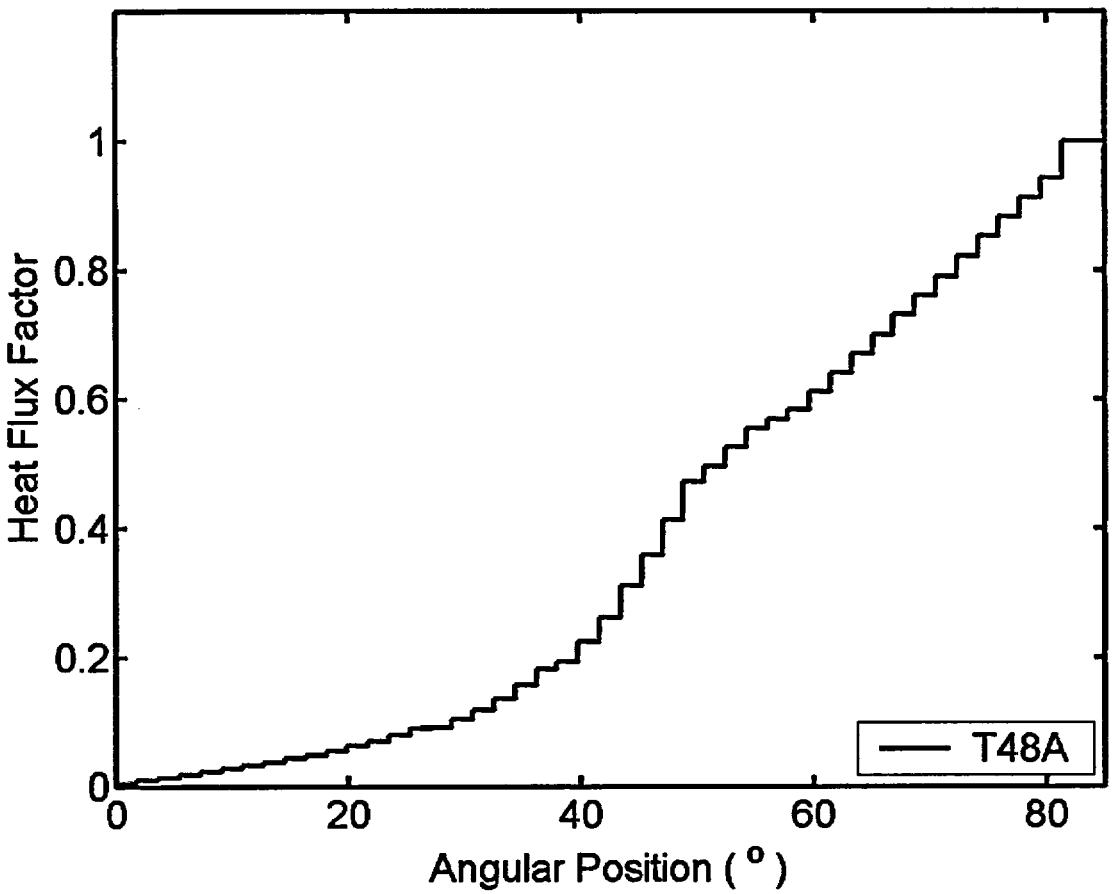

Figure A26.1. Power shape.

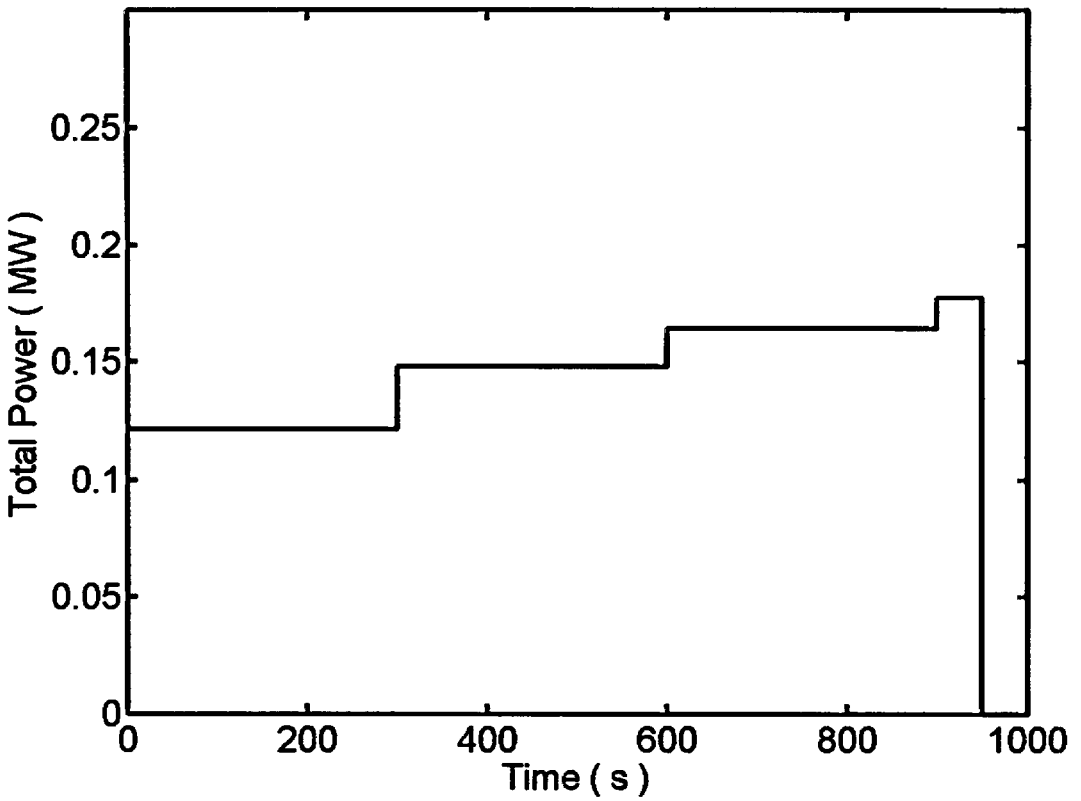

Figure A26.2. Total input power history.

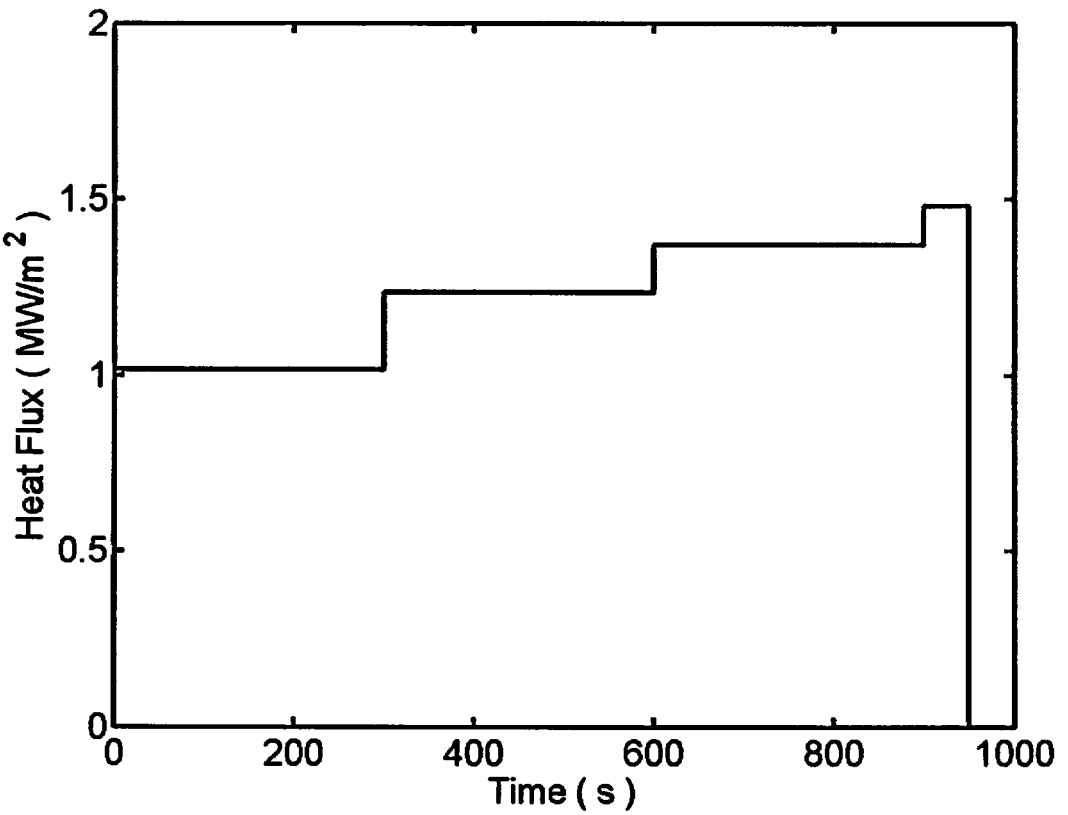

Figure A26.3. Heat flux history.

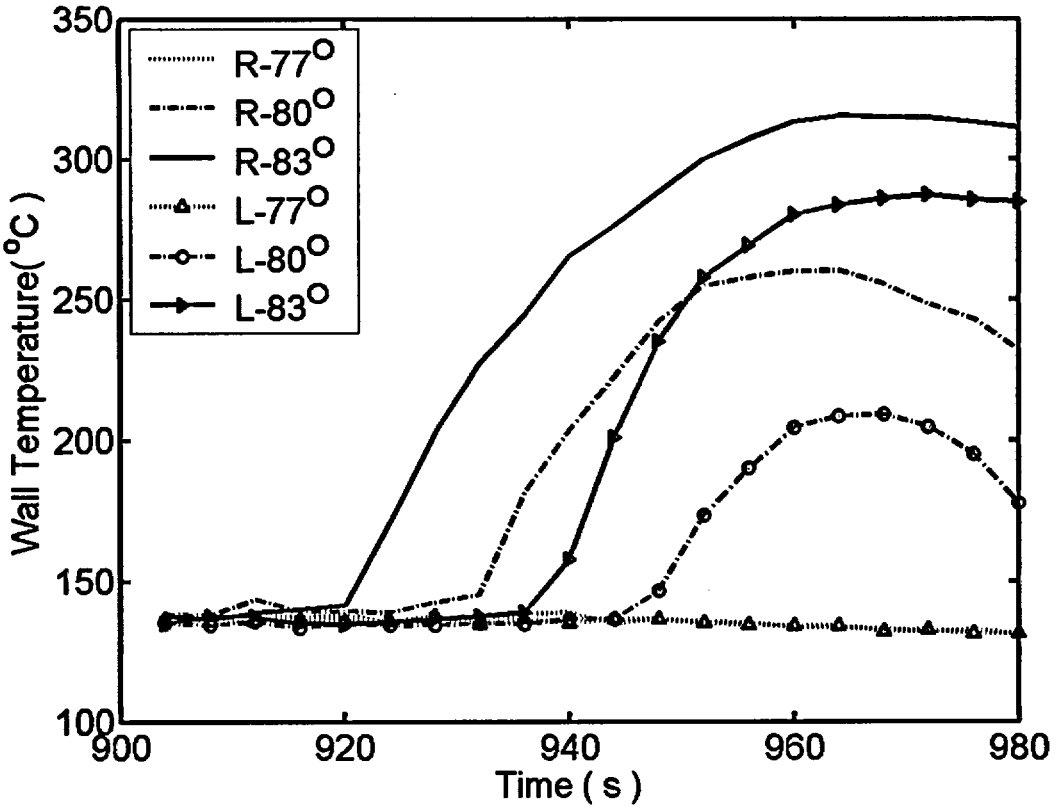

Figure A26.4. Temperature history at CHF.

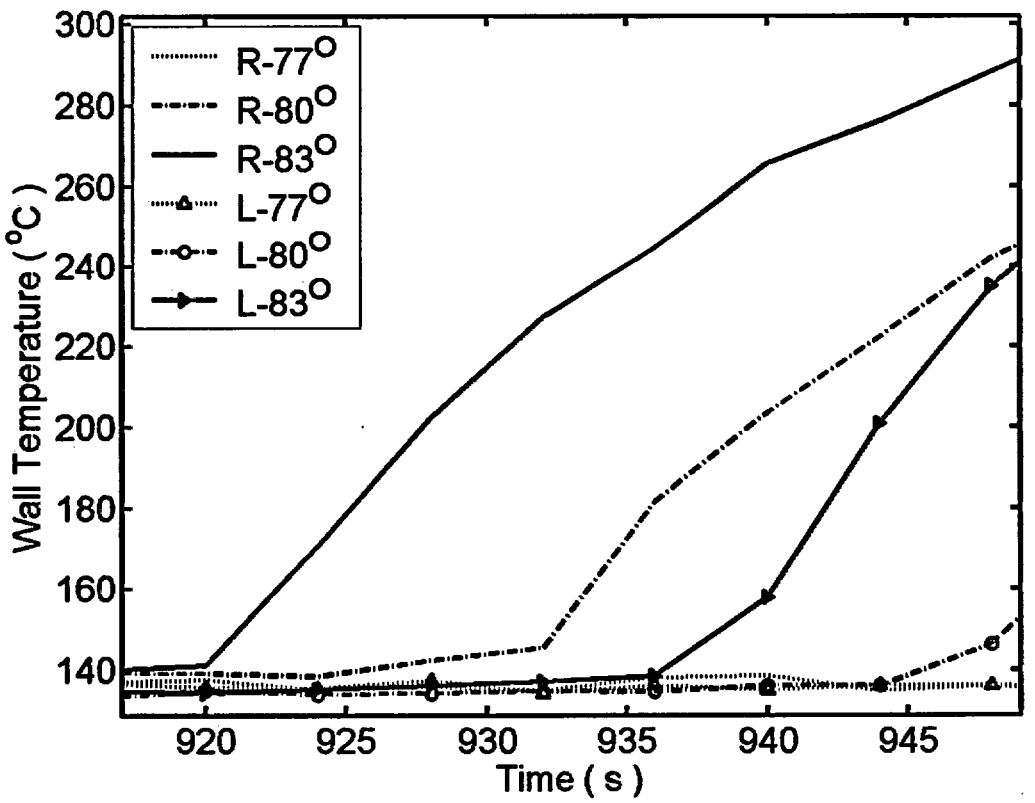

Figure A26.5. Temperature history at CHF in detail.

ID #27

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T48A	1370	RC7	80	C	12/19/2002/10:15

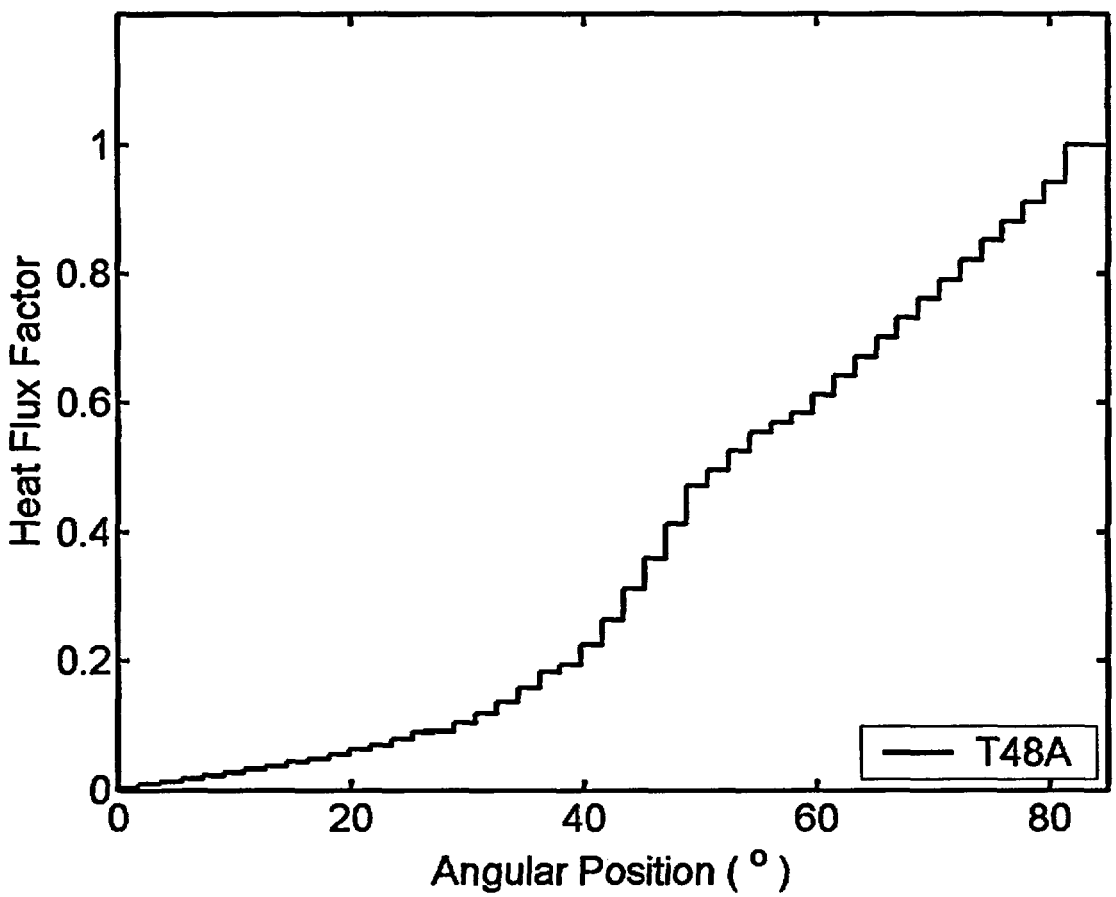

Figure A27.1. Power shape.

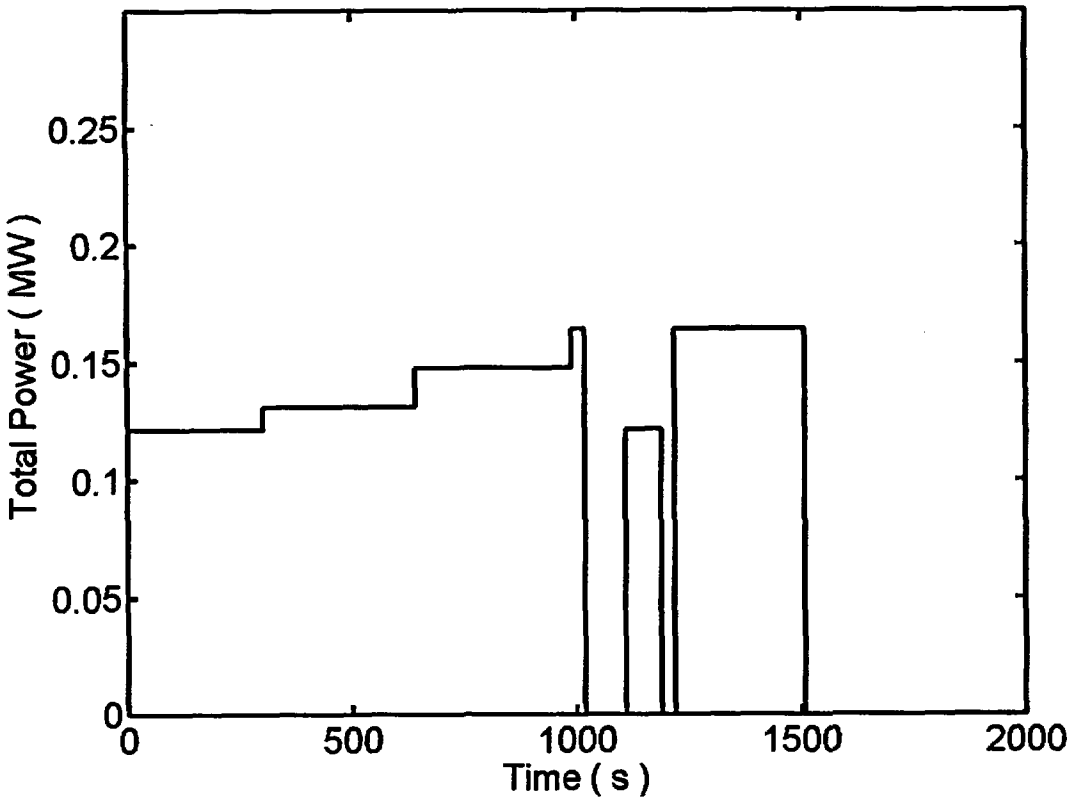

Figure A27.2. Total input power history.

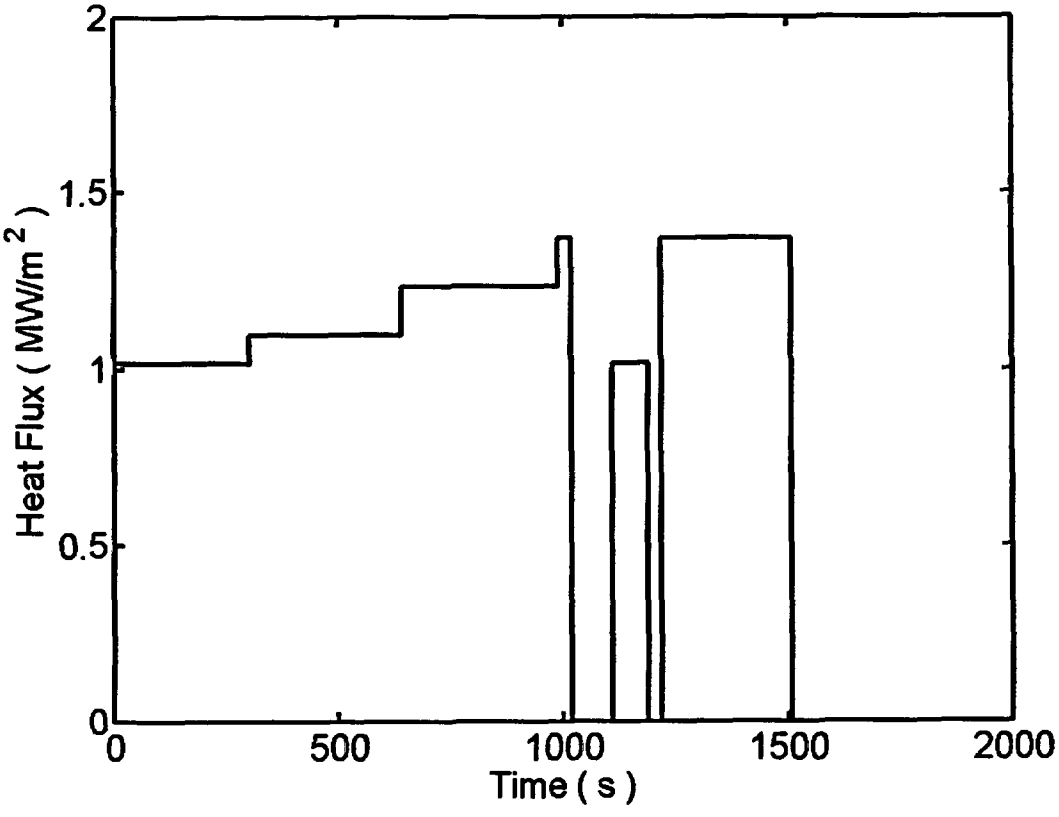

Figure A27.3. Heat flux history.

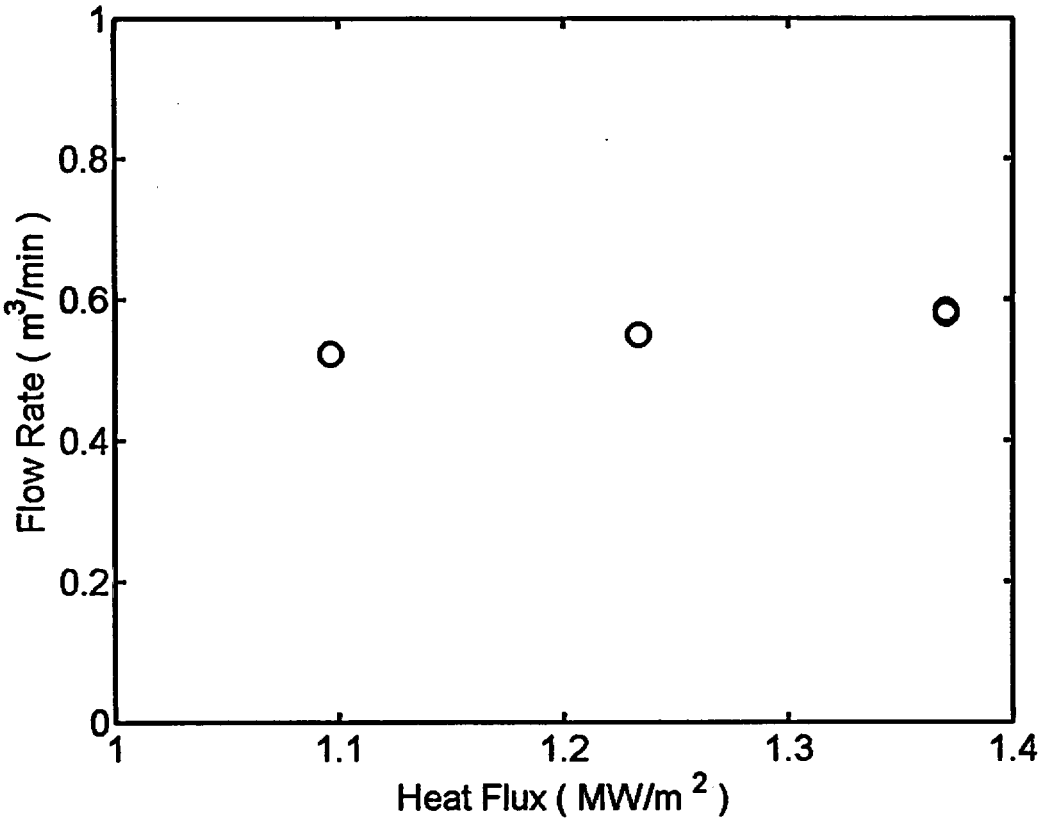

Figure A27.4. Flow rate vs. heat fluxes.

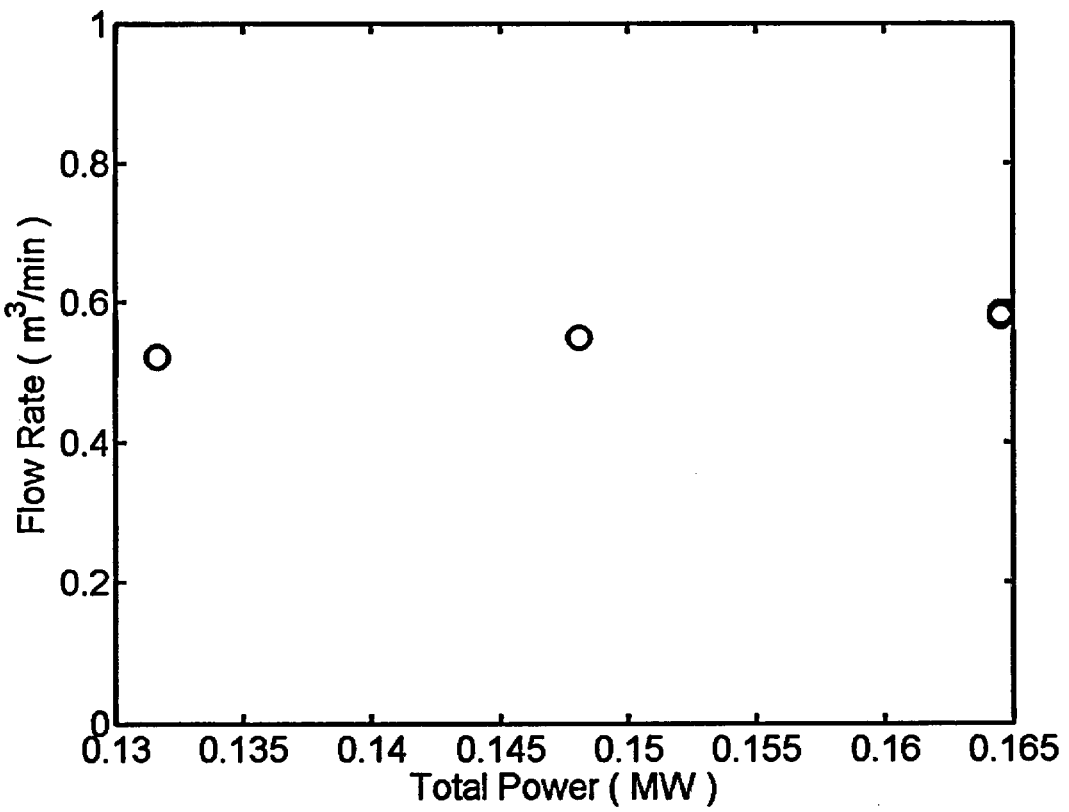

Figure A27.5. Flow rate vs. total input power.

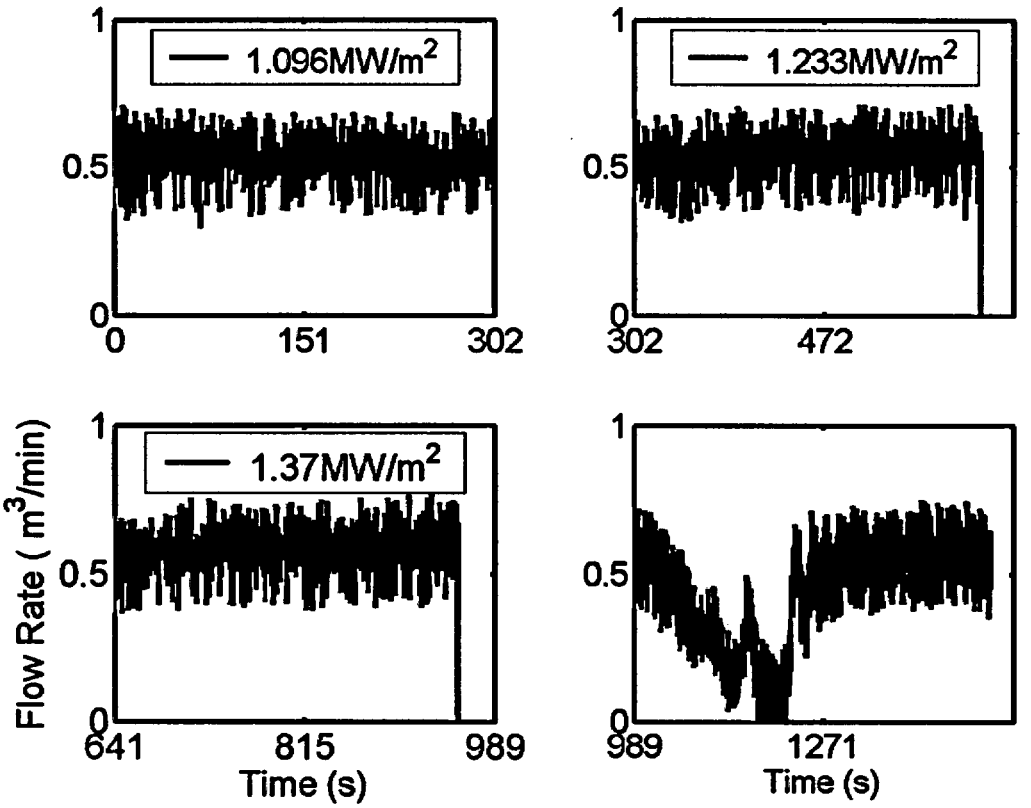

Figure A27.6. Flow rates at different heat fluxes.

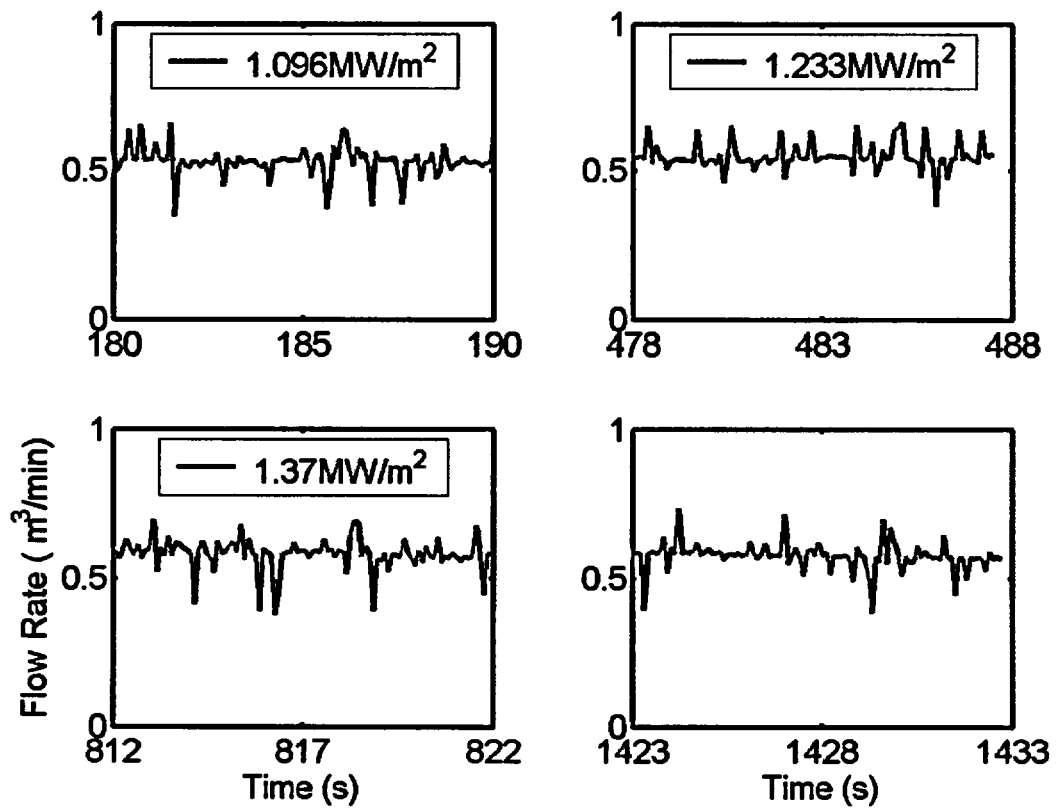

Figure A27.7. Flow rates at different heat fluxes at selected time intervals.

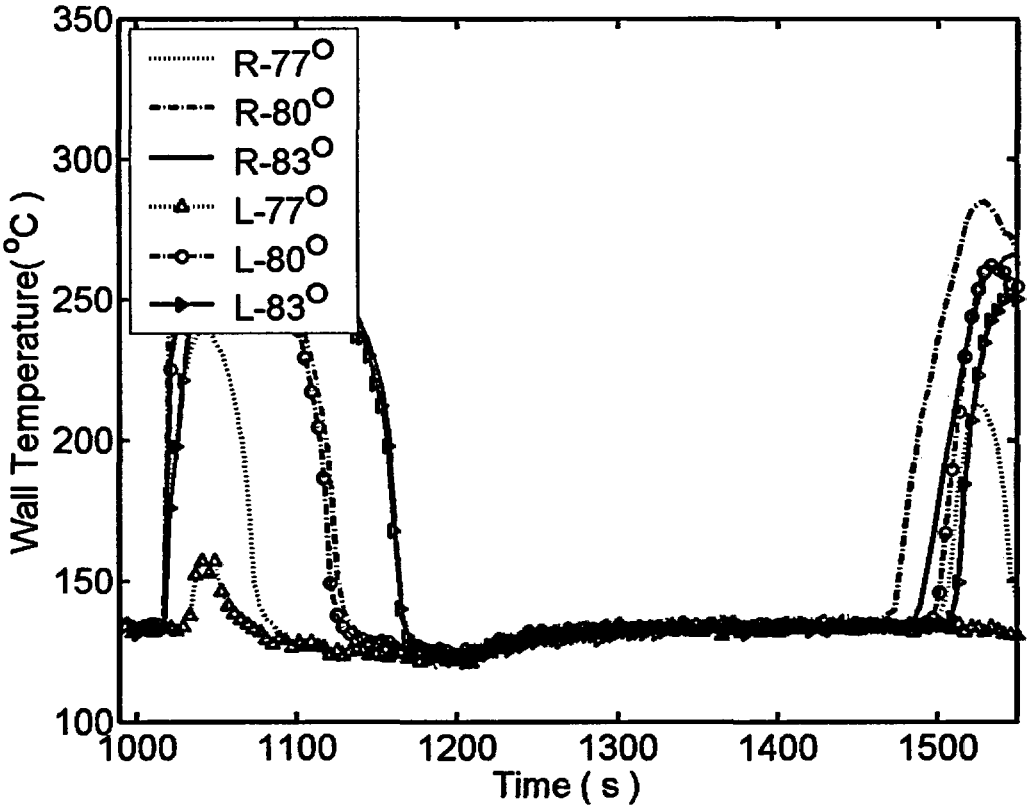

Figure A27.8. Temperature history at CHF.

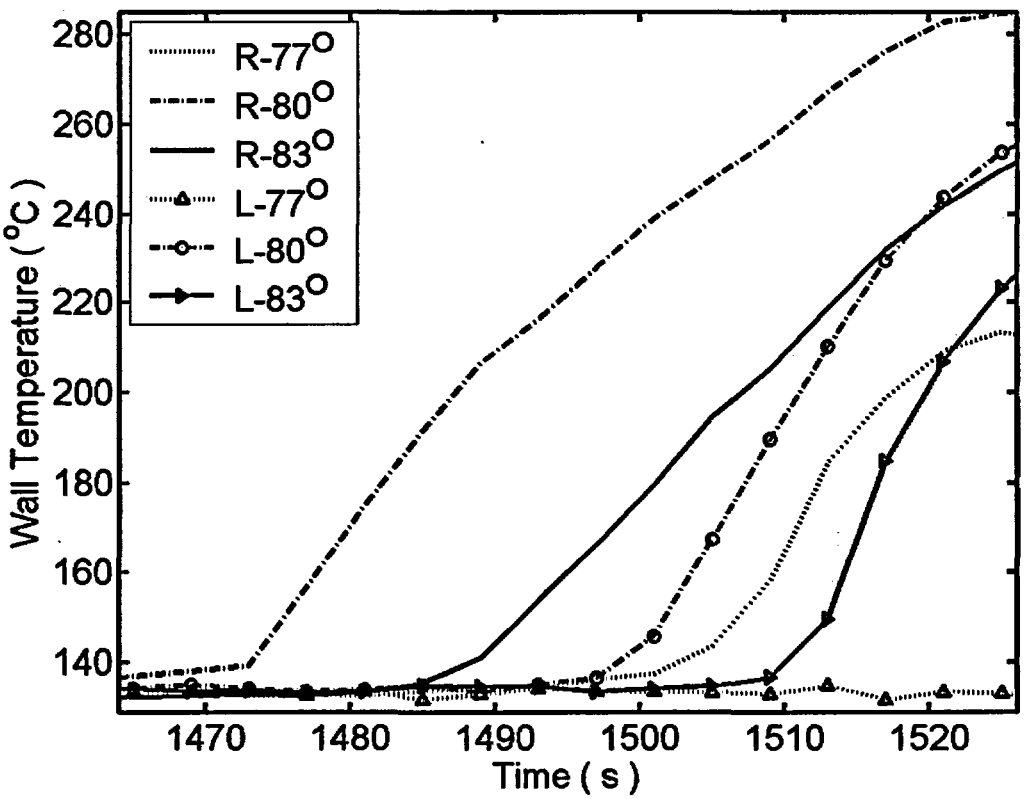

Figure A27.9. Temperature history at CHF in detail.

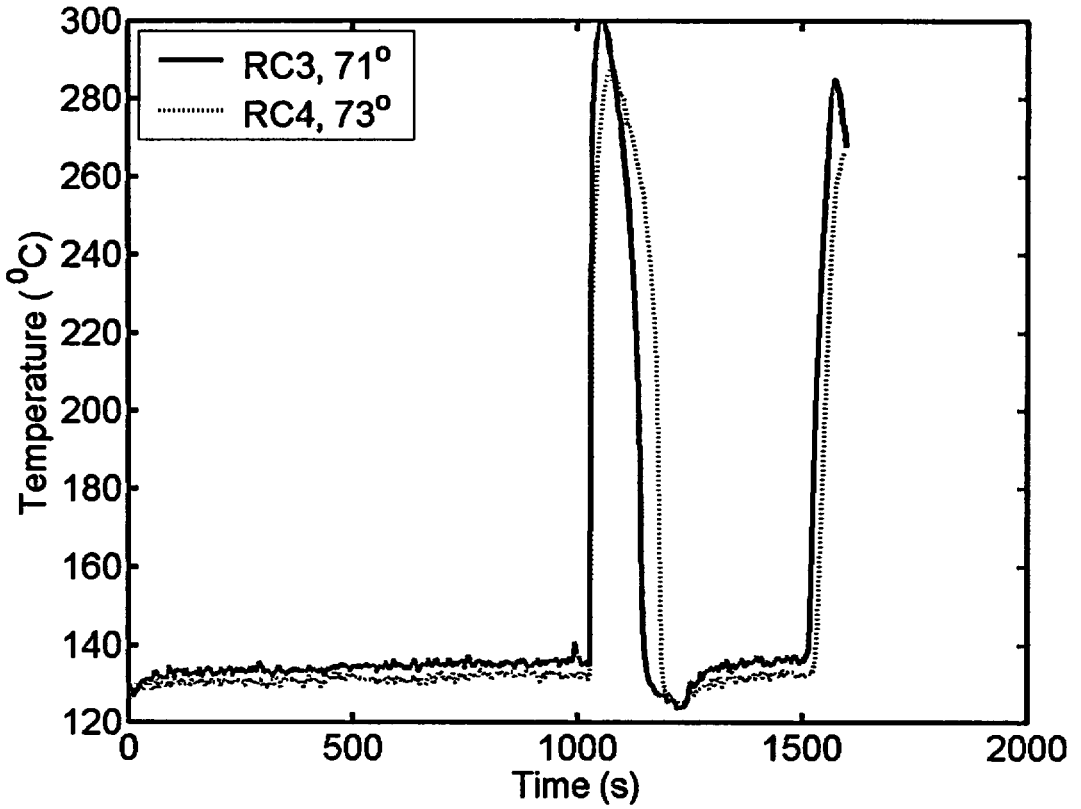

Figure A27.10. Wall temperature history measured by two thermocouples RC3 and RC4.

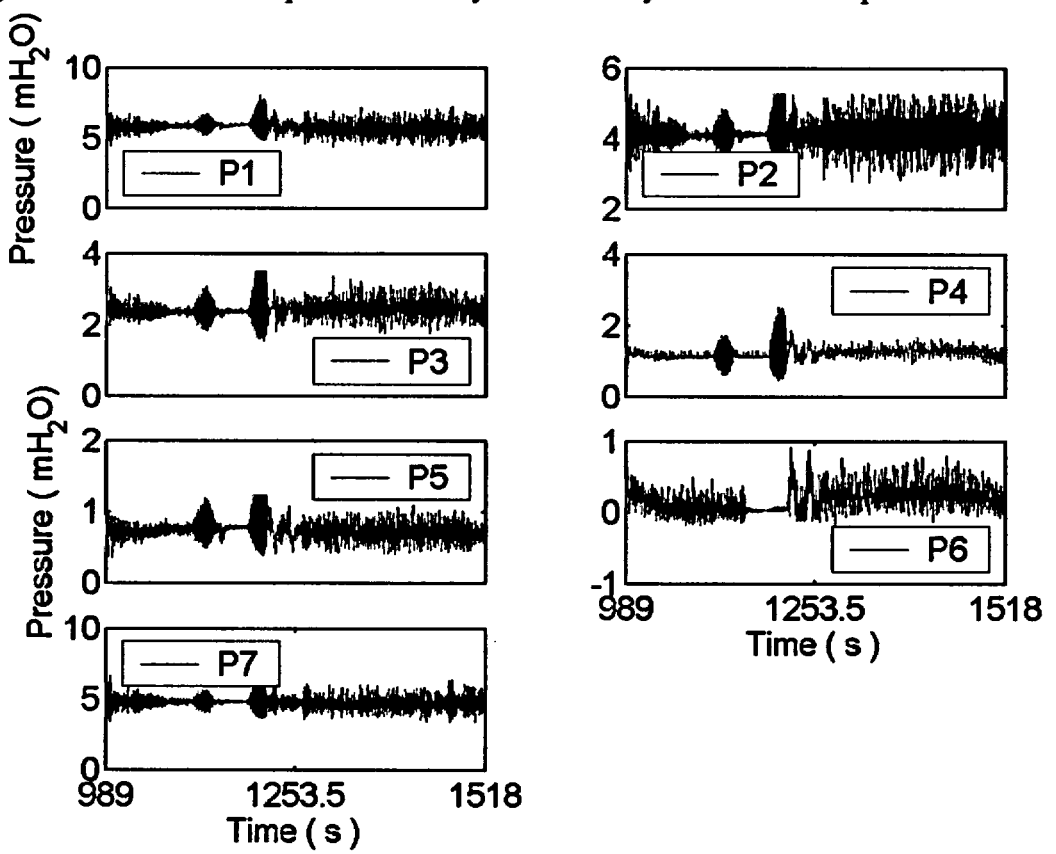

Figure A27.11. Pressure transducer data for time internal 989 to 1518 s.

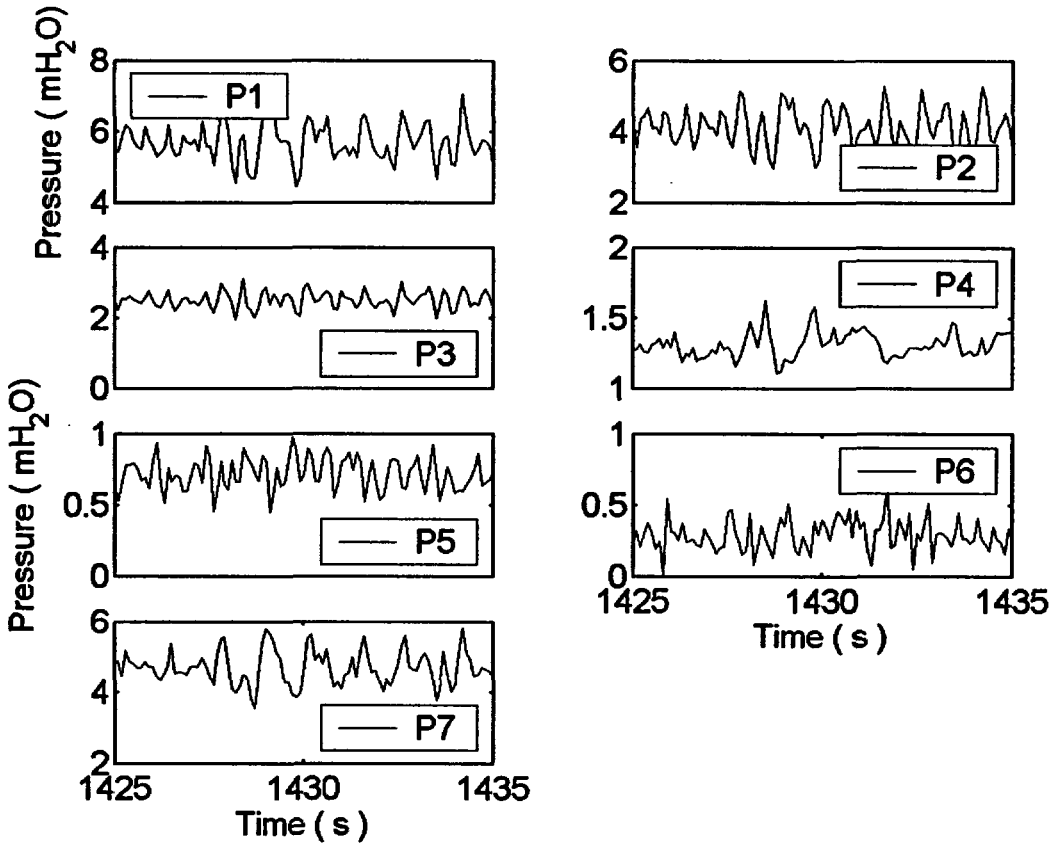

Figure A27.12. Pressure data in detail at q = 1.370 MW/m^2.

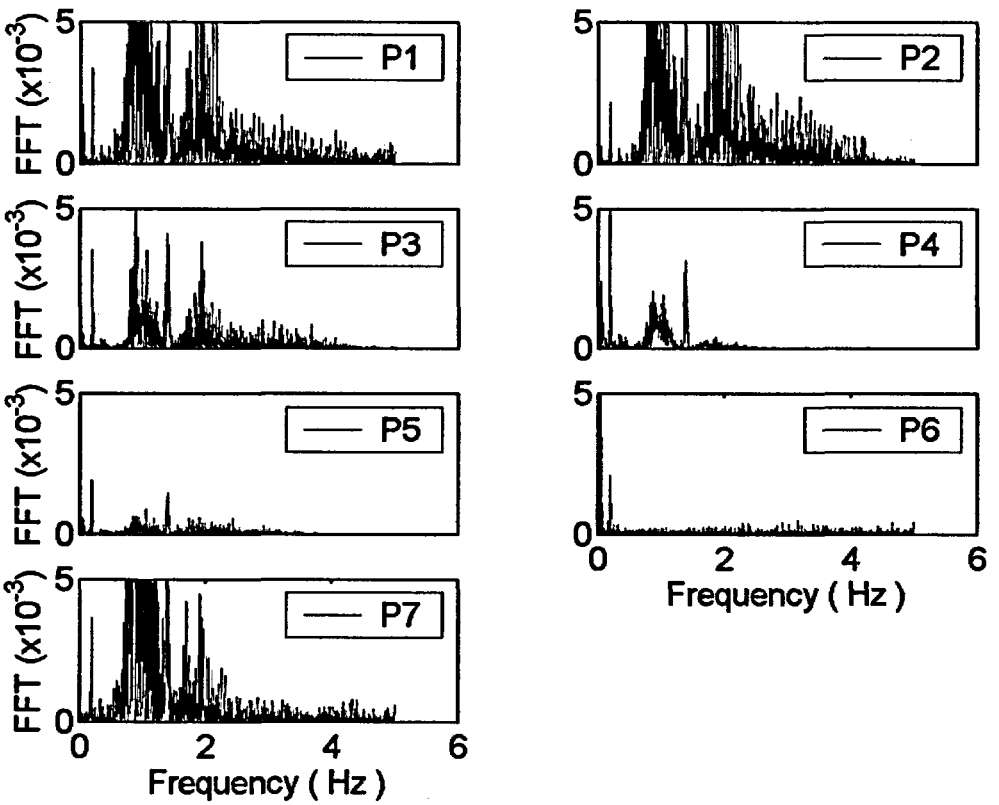

Figure A27.13. FFT of pressure time series for time internal 989 to 1518 s.

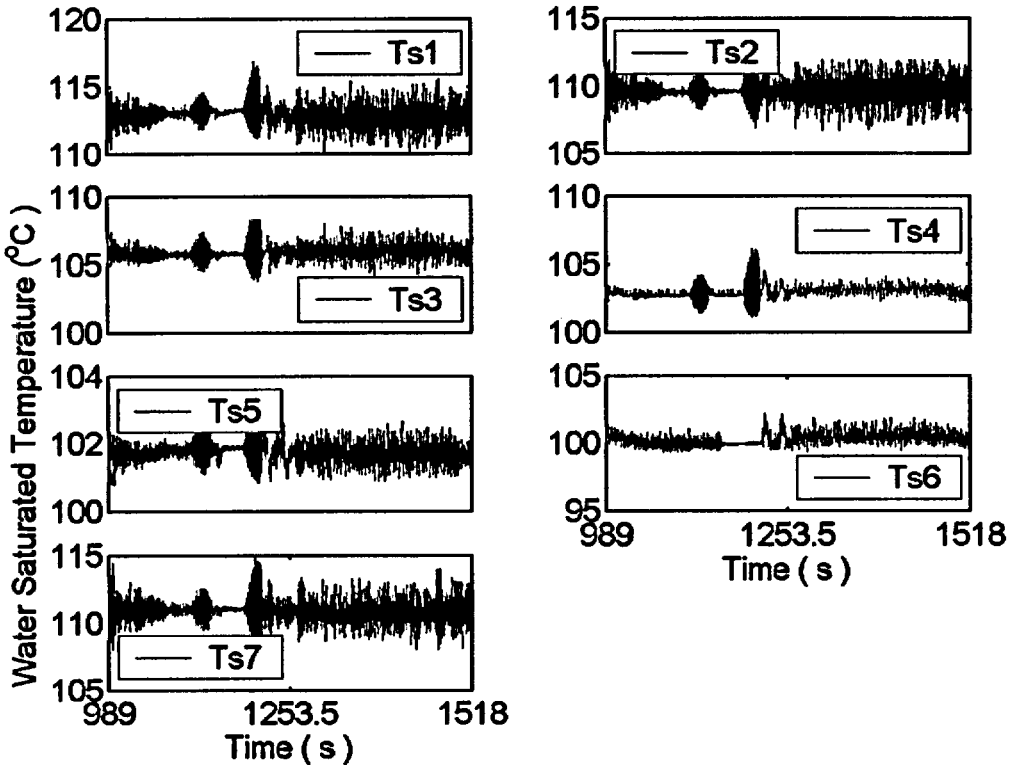

Figure A27.14. Water saturation temperature calculated from local pressure data for time internal 989 to 1518 s.

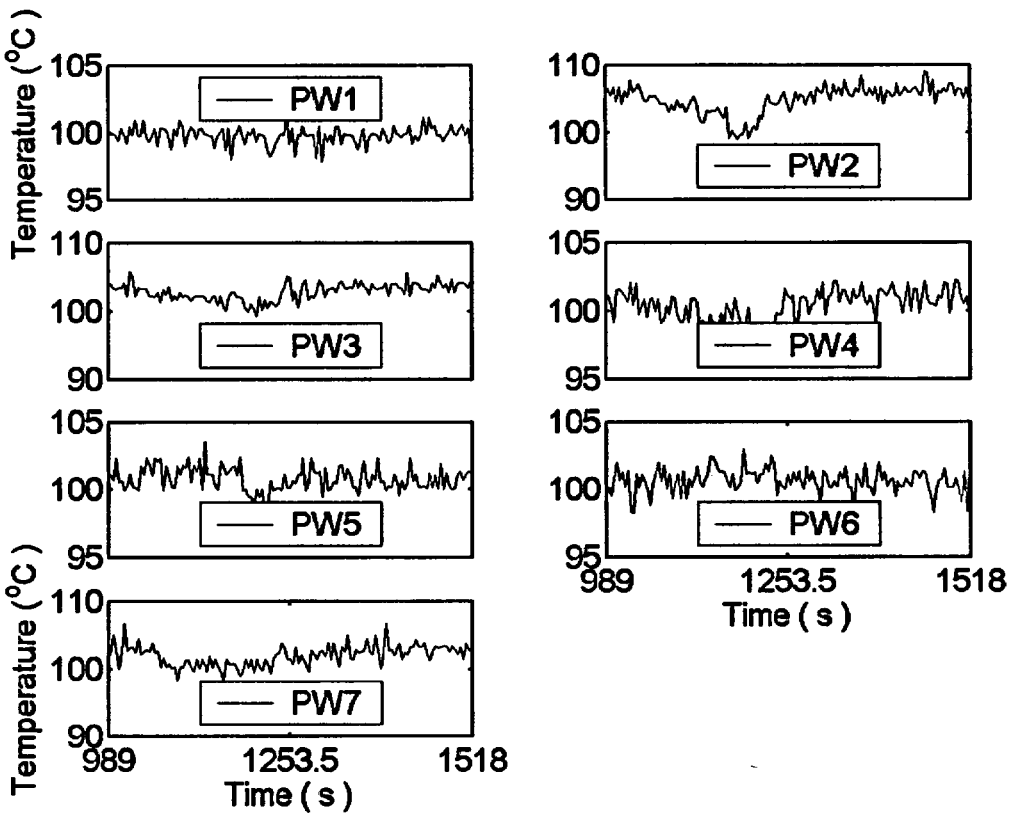

Figure A27.15. Water temperature measured at location of pressure transducer for time internal 989 to 1518 s.

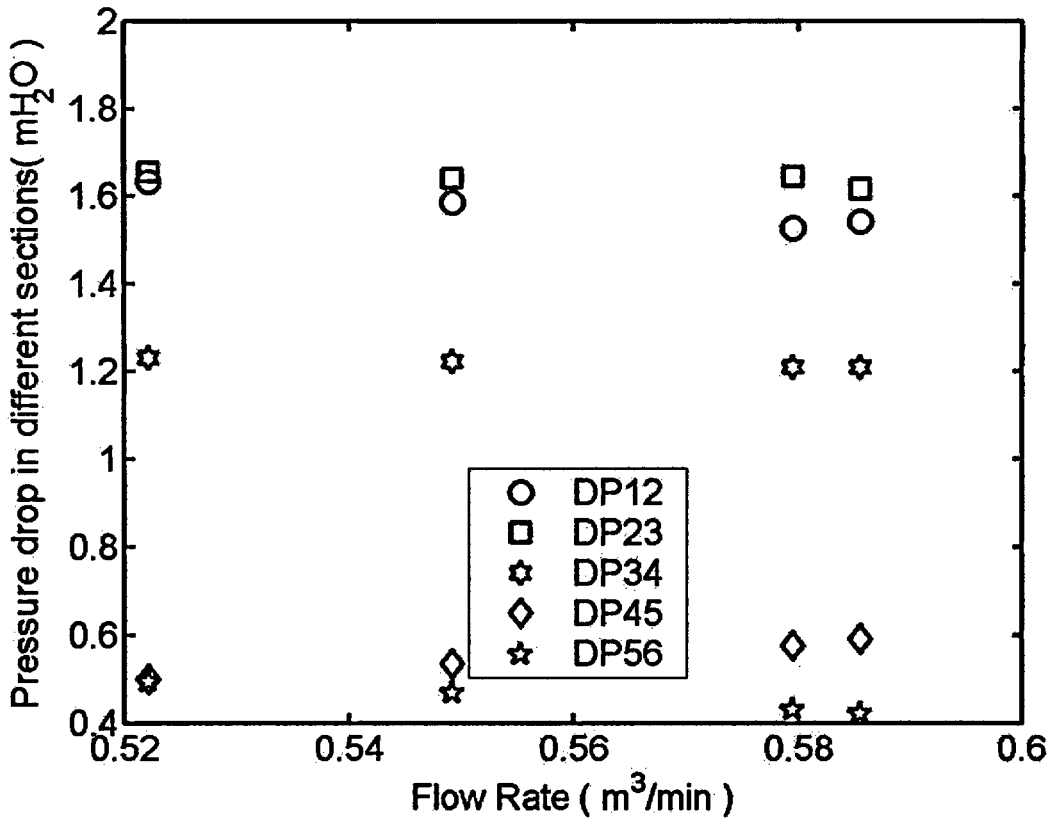

Figure A27.16. Pressure drop vs. flow rate at different heat fluxes.

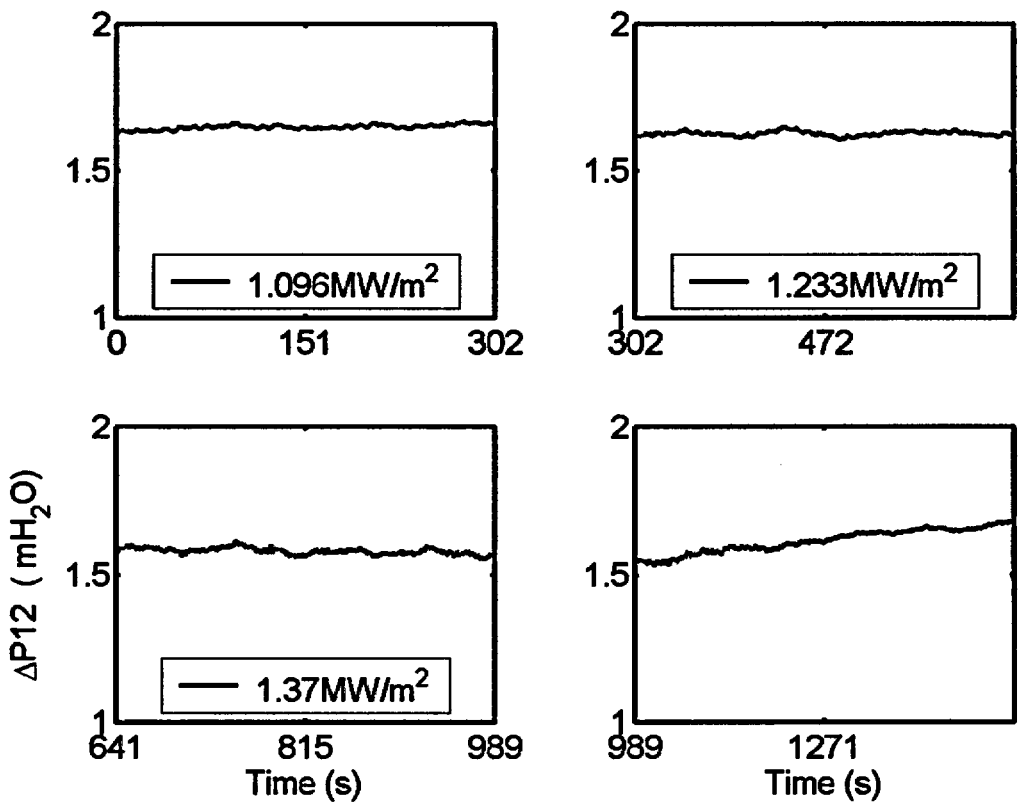

Figure A27.17. Differential Pressure ΔP12 at different heat fluxes.

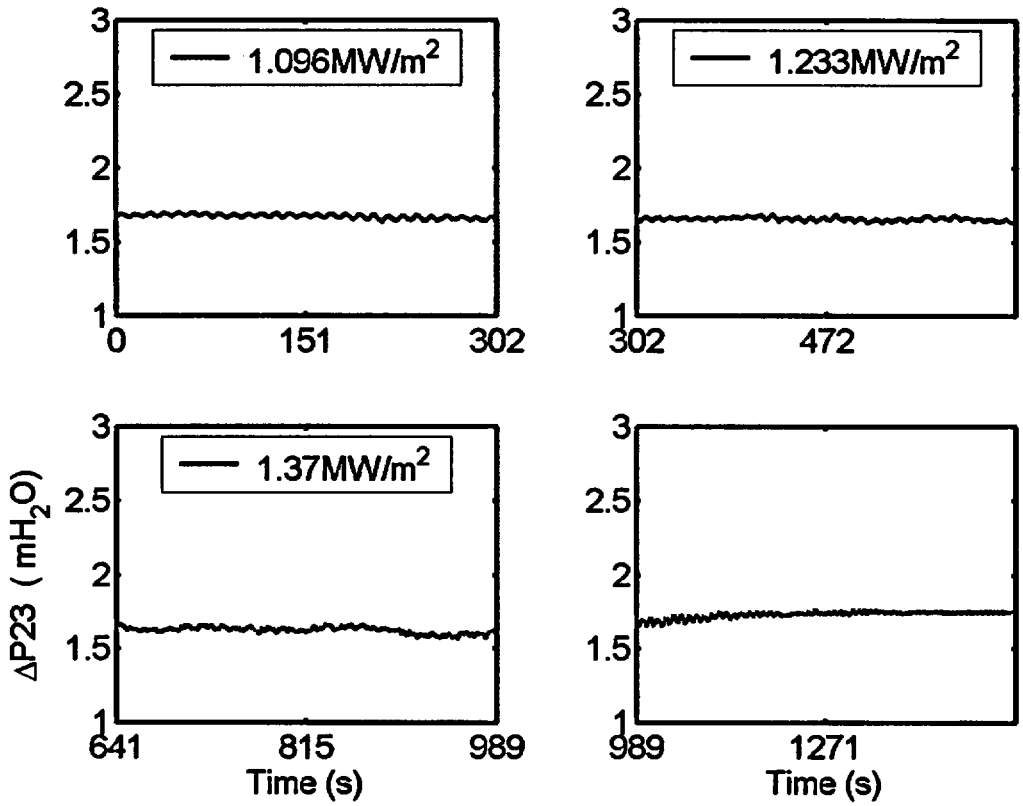

Figure A27.18. Differential Pressure ΔP23 at different heat fluxes.

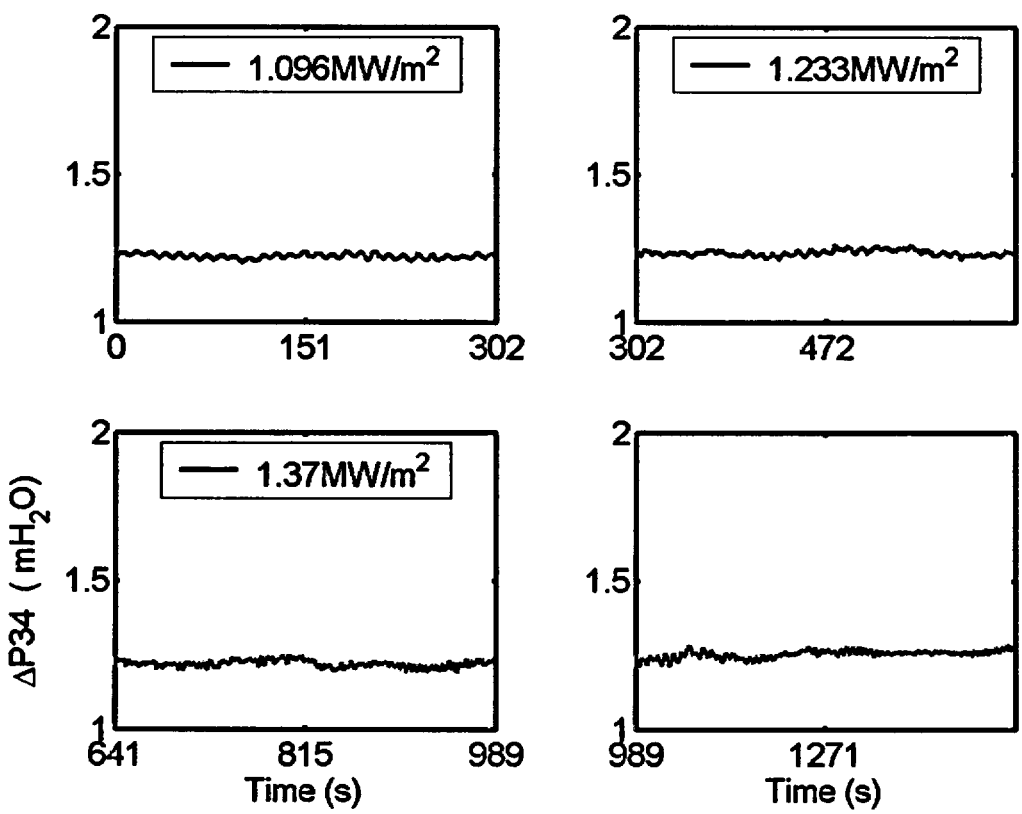

Figure A27.19. Differential Pressure ΔP34 at different heat fluxes.

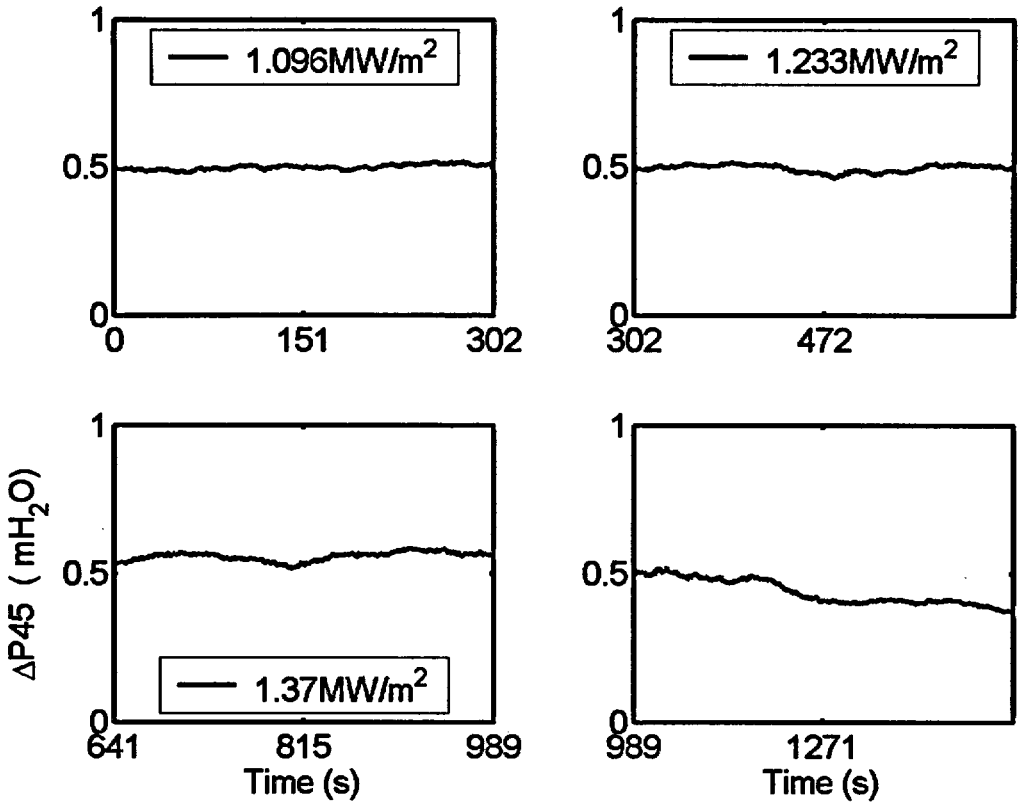

Figure A27.20. Differential Pressure ΔP45 at different heat fluxes.

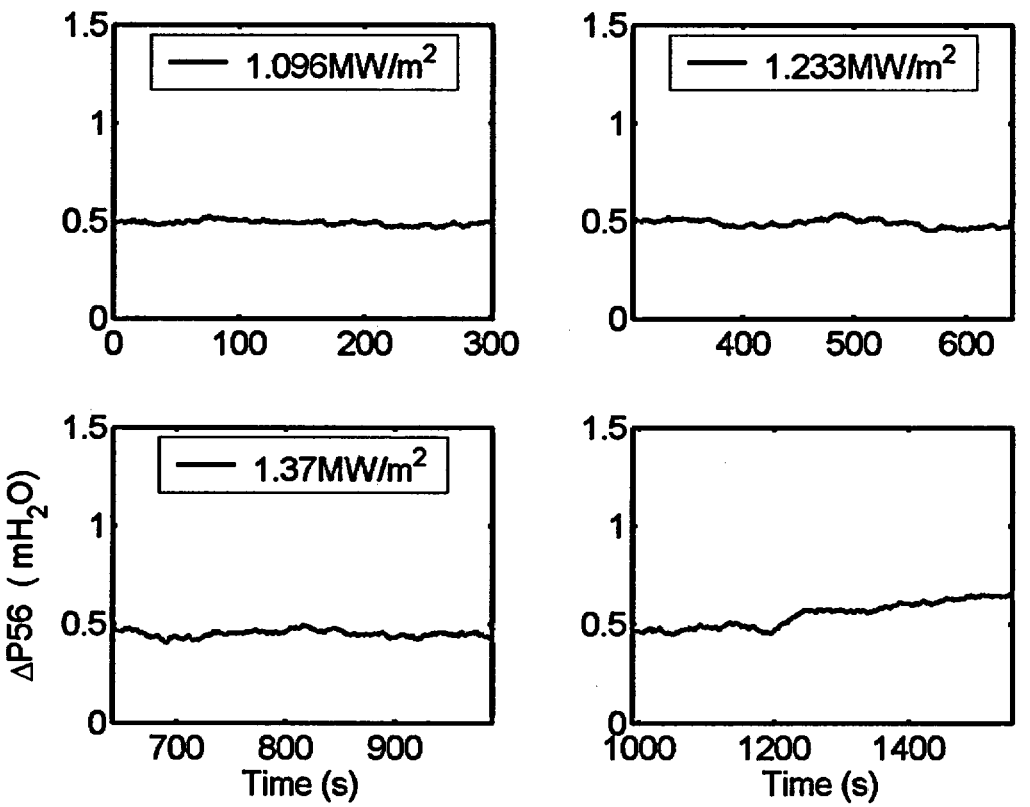

Figure A27.21. Differential Pressure ΔP56 at different heat fluxes.

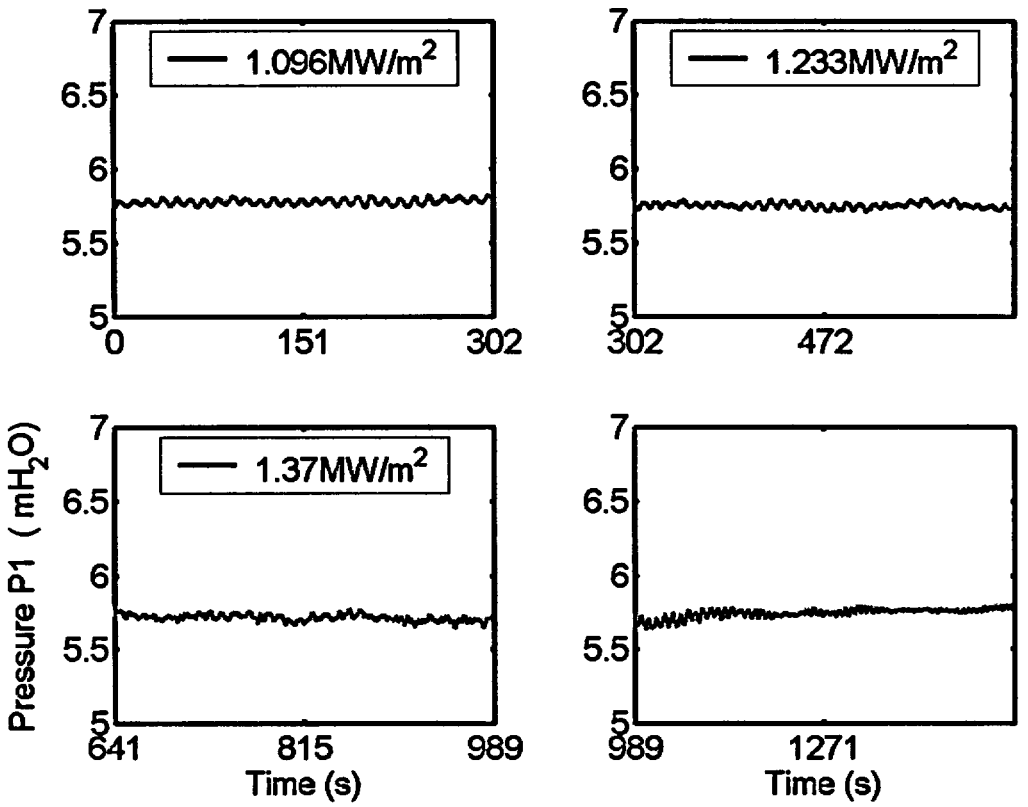

Figure A27.22. Pressure P1 at different heat fluxes.

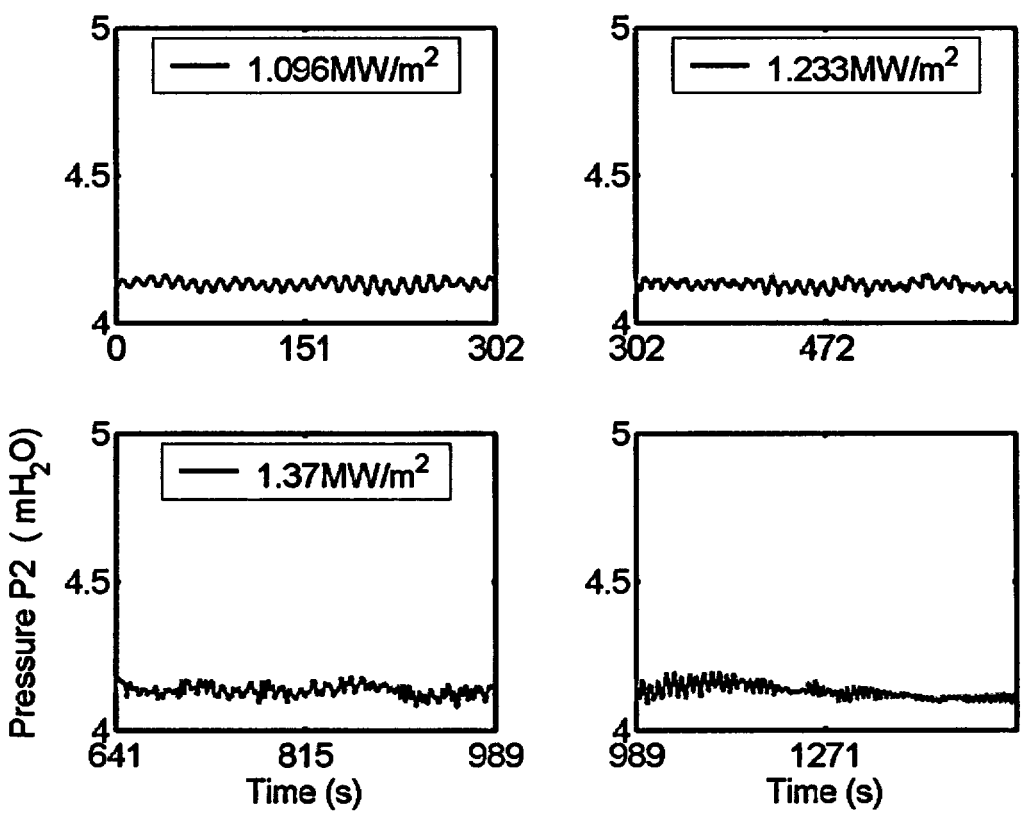

Figure A27.23. Pressure P2 at different heat fluxes.

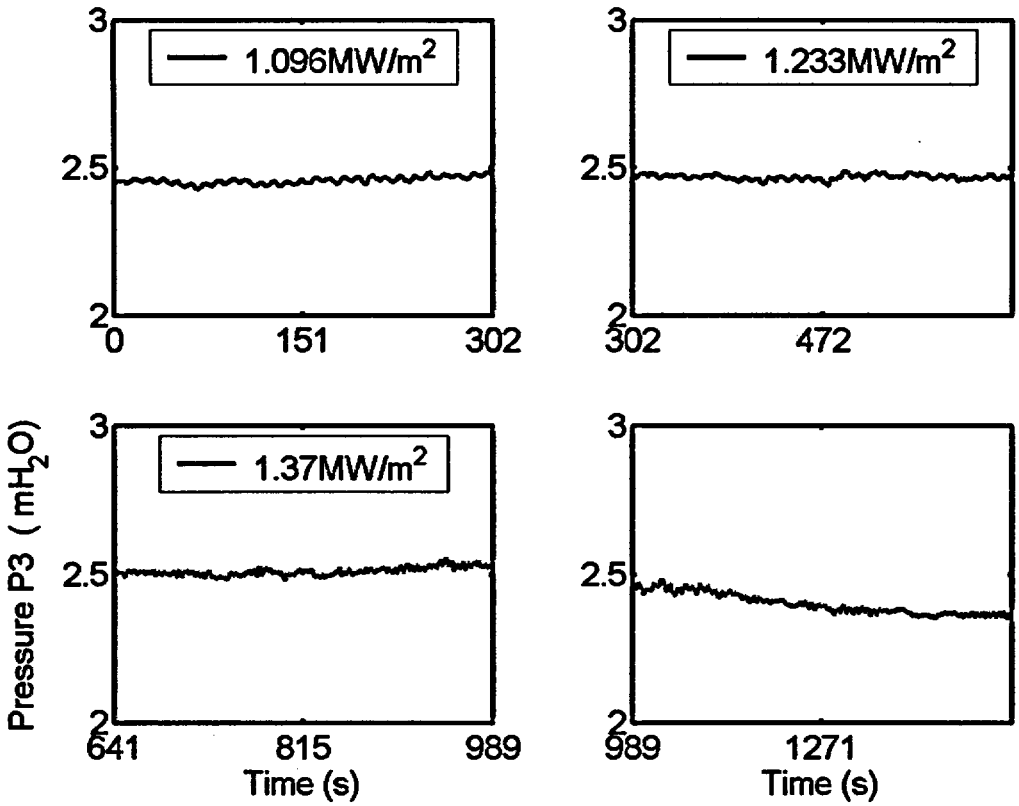

Figure A27.24. Pressure P3 at different heat fluxes.

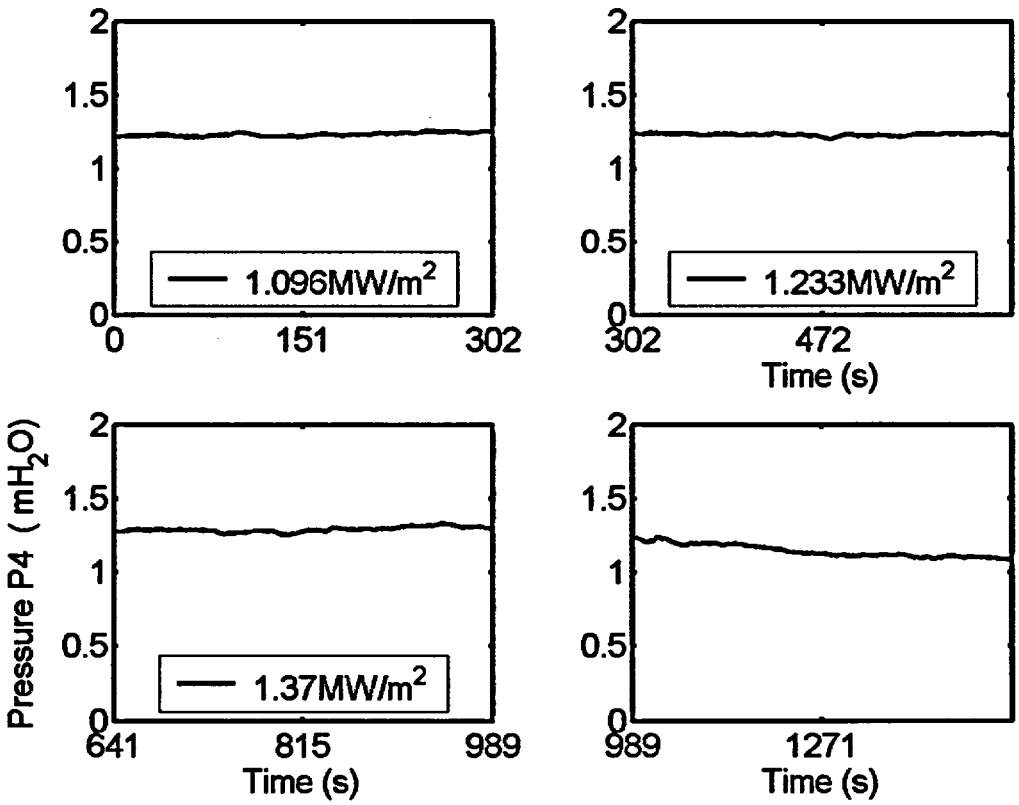

Figure A27.25. Pressure P4 at different heat fluxes.

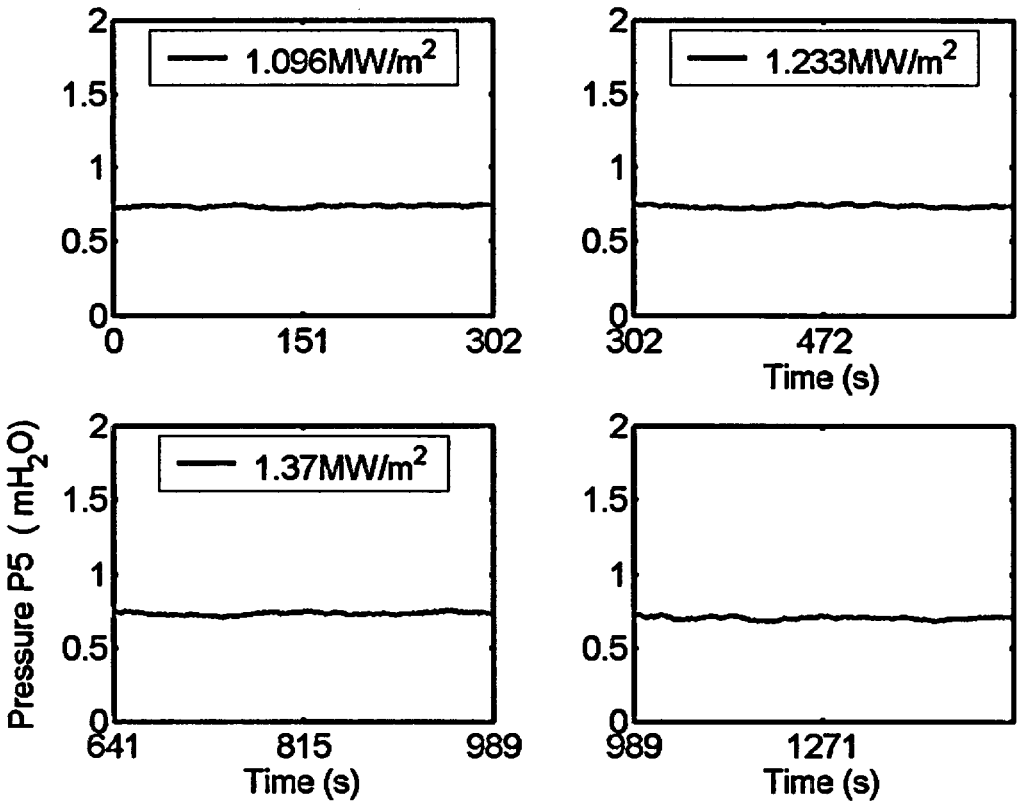

Figure A27.26. Pressure P5 at different heat fluxes.

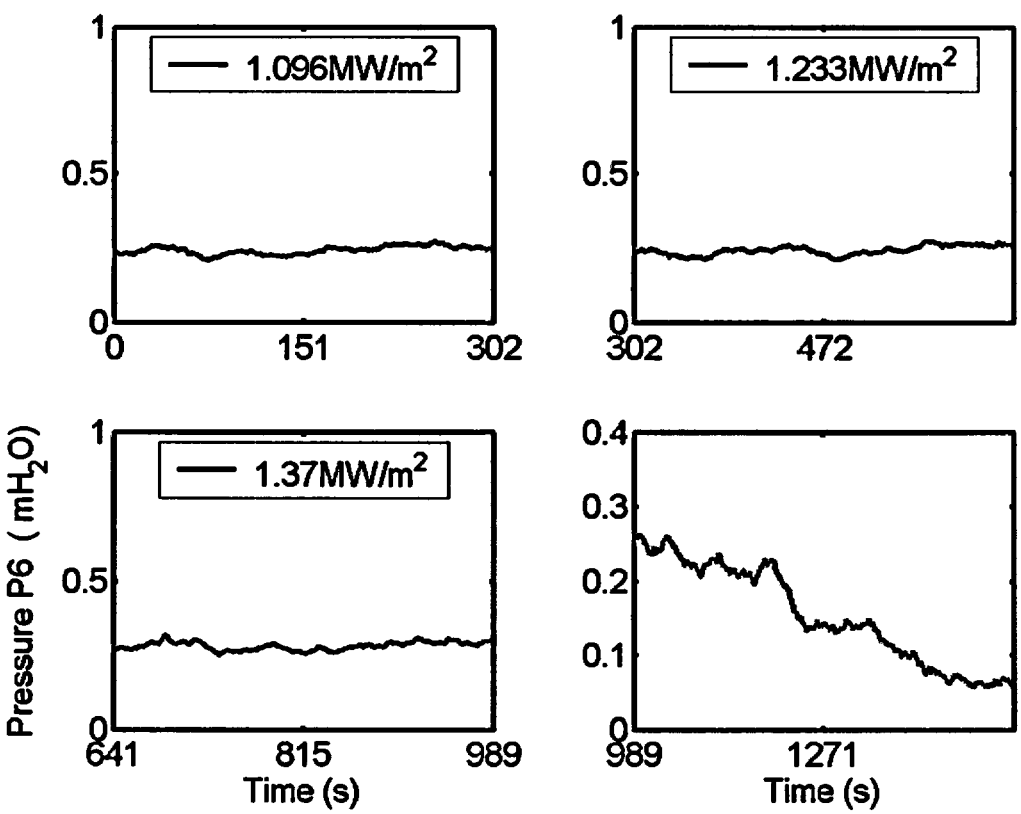

Figure A27.27. Pressure P6 at different heat fluxes.

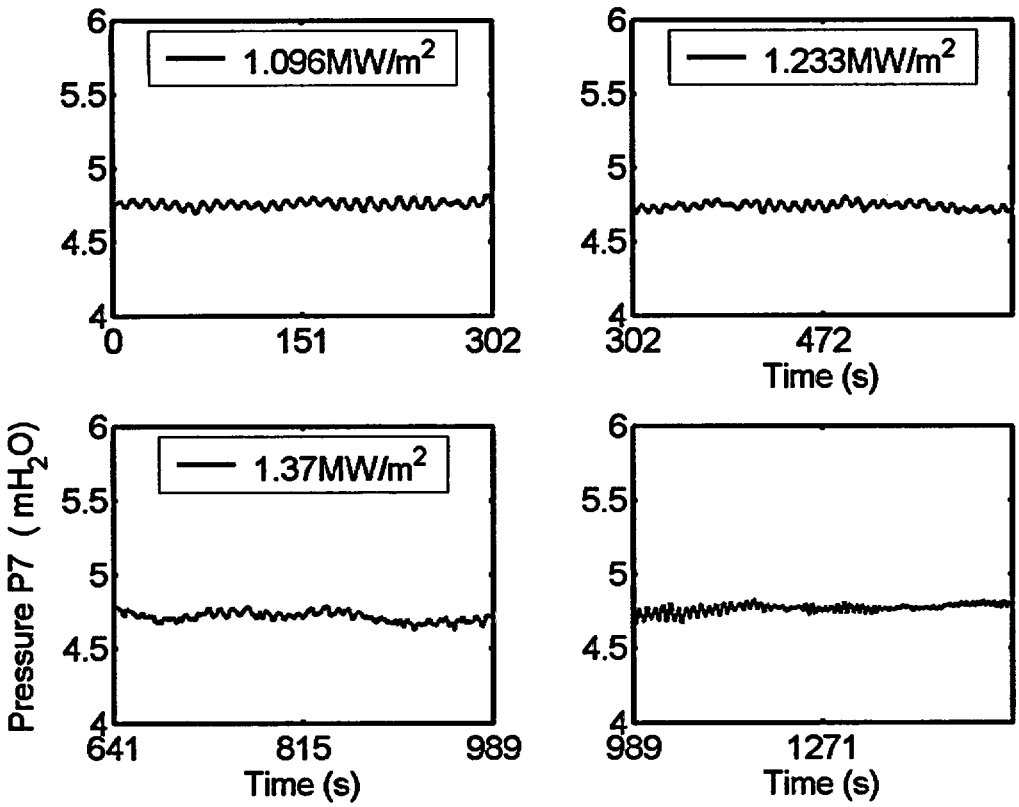

Figure A27.28. Pressure P7 at different heat fluxes.

ID #28

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T48A	1507	RC8	83	C	01/03/2003/11:00

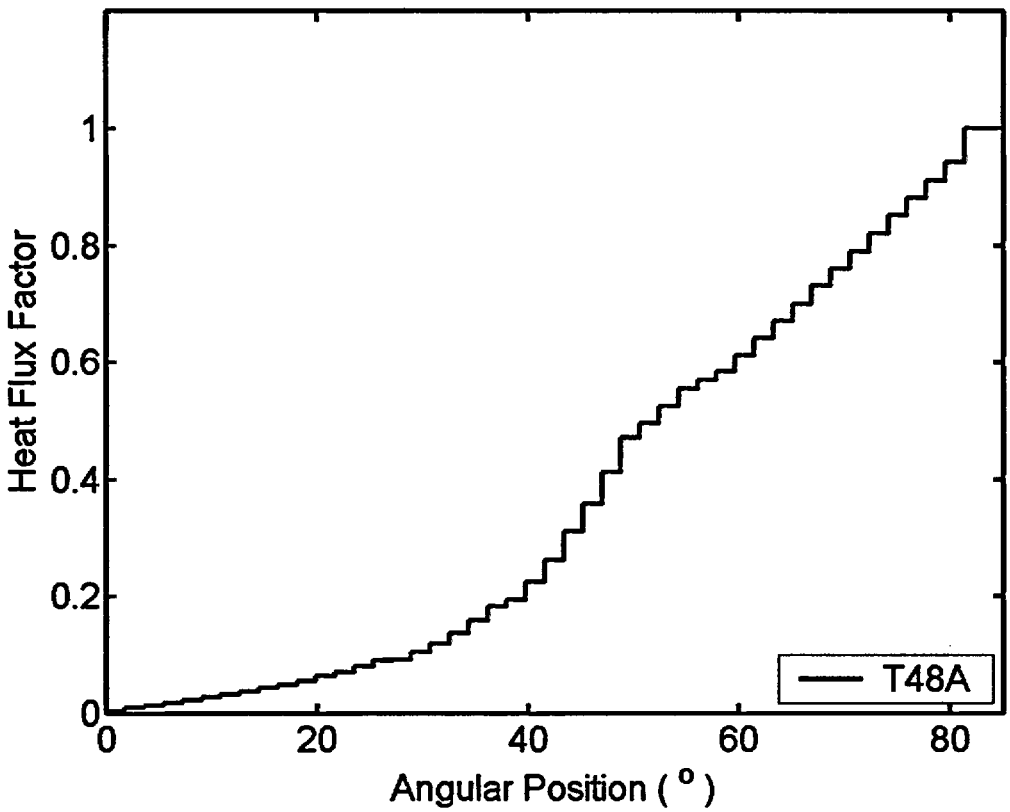

Figure A28.1. Power shape.

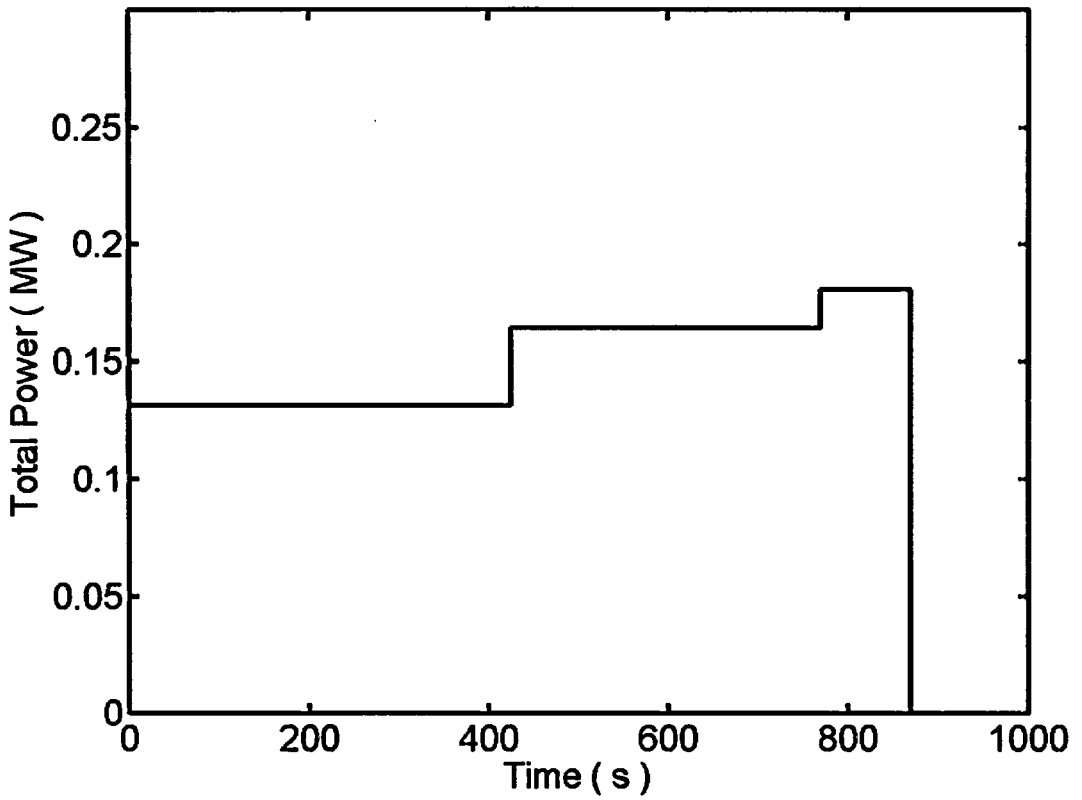

Figure A28.2. Total input power history.

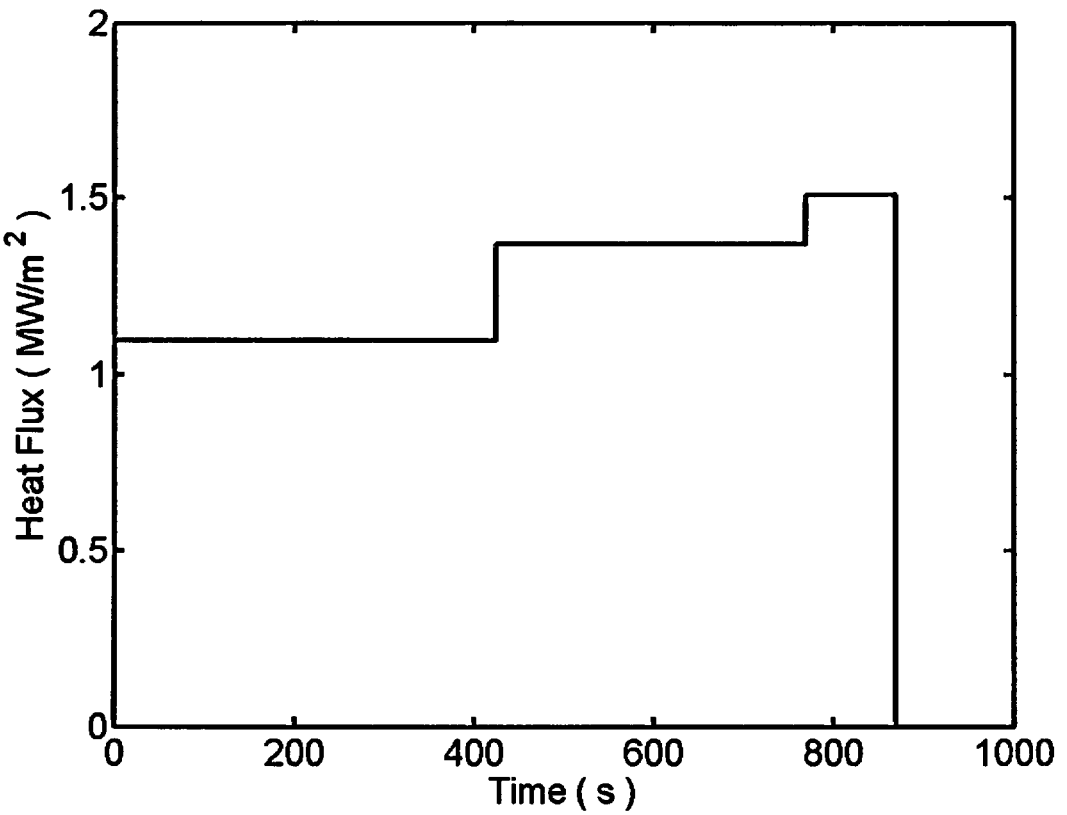

Figure A28.3. Heat flux history.

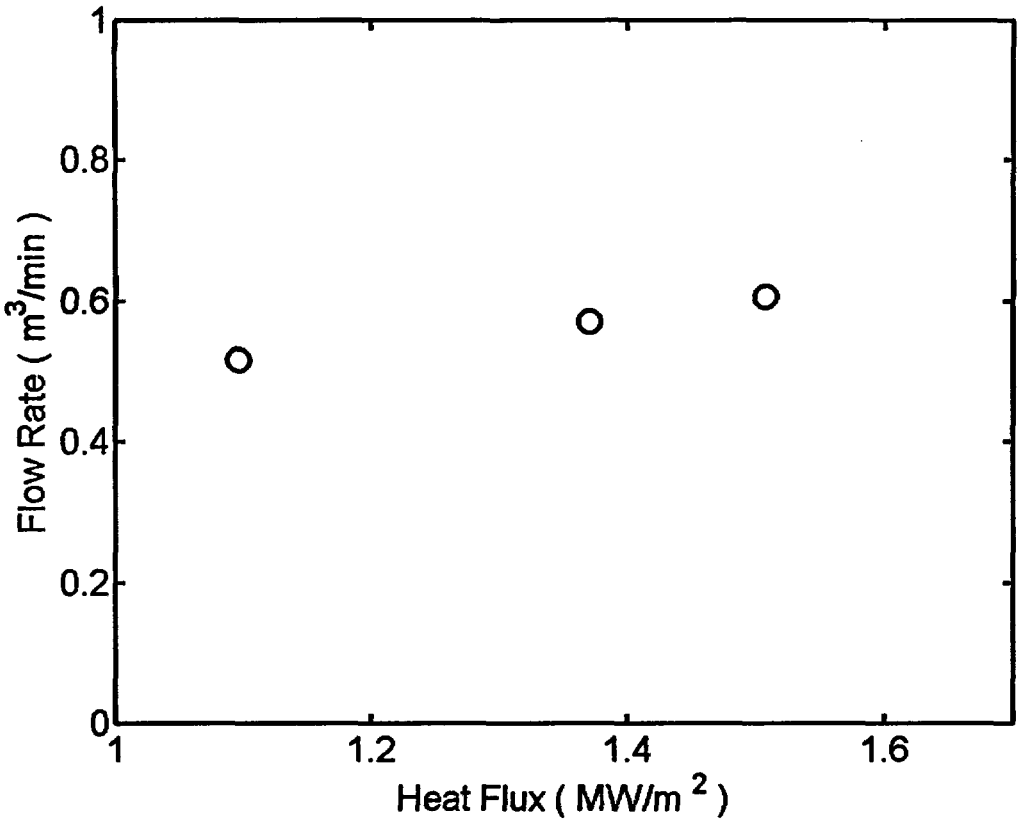

Figure A28.4. Flow rate vs. heat fluxes.

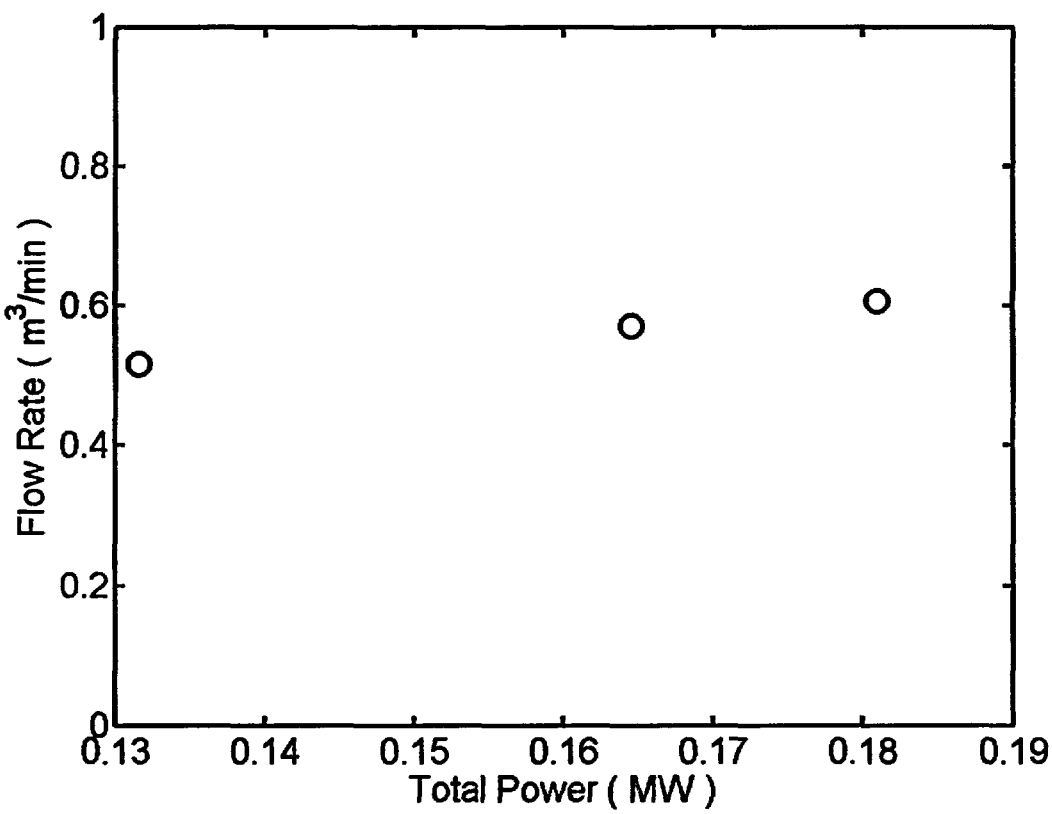

Figure A28.5. Flow rate vs. total input power.

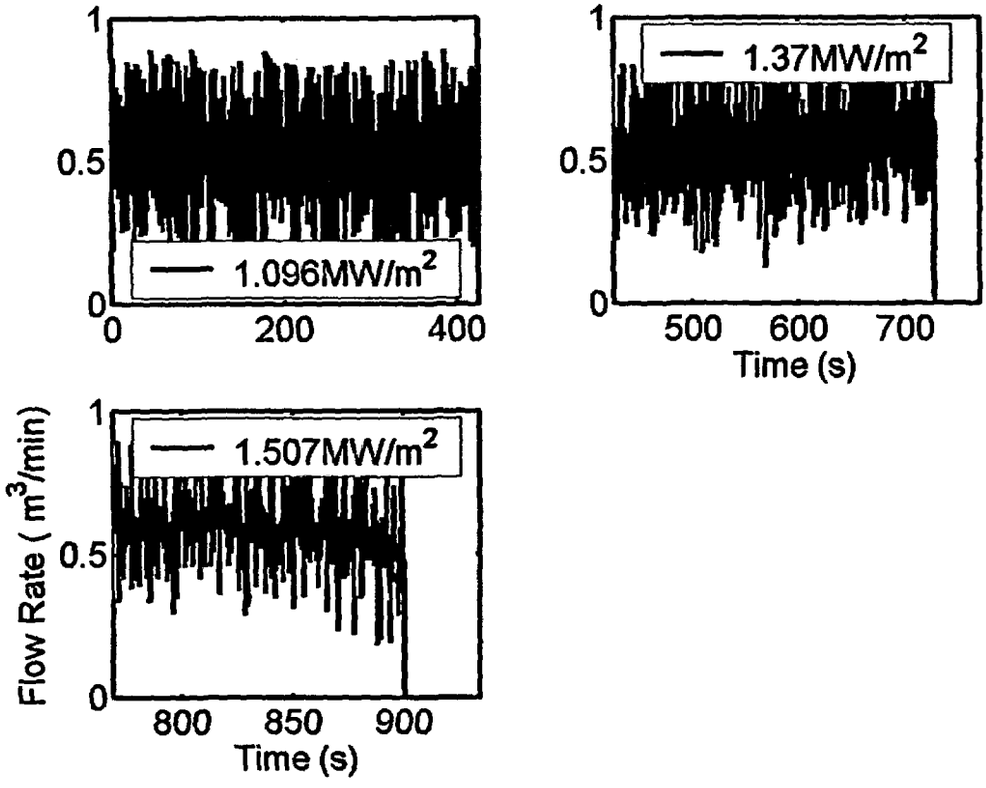

Figure A28.6. Flow rates at different heat fluxes.

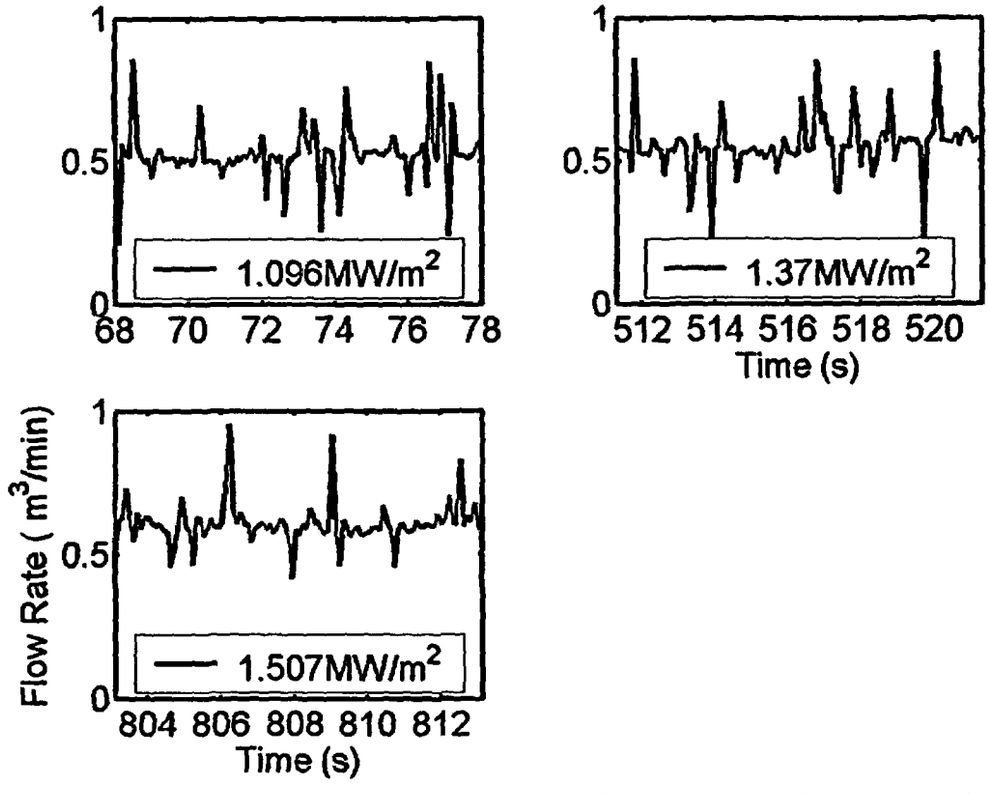

Figure A28.7. Flow rates at different heat fluxes at selected time intervals.

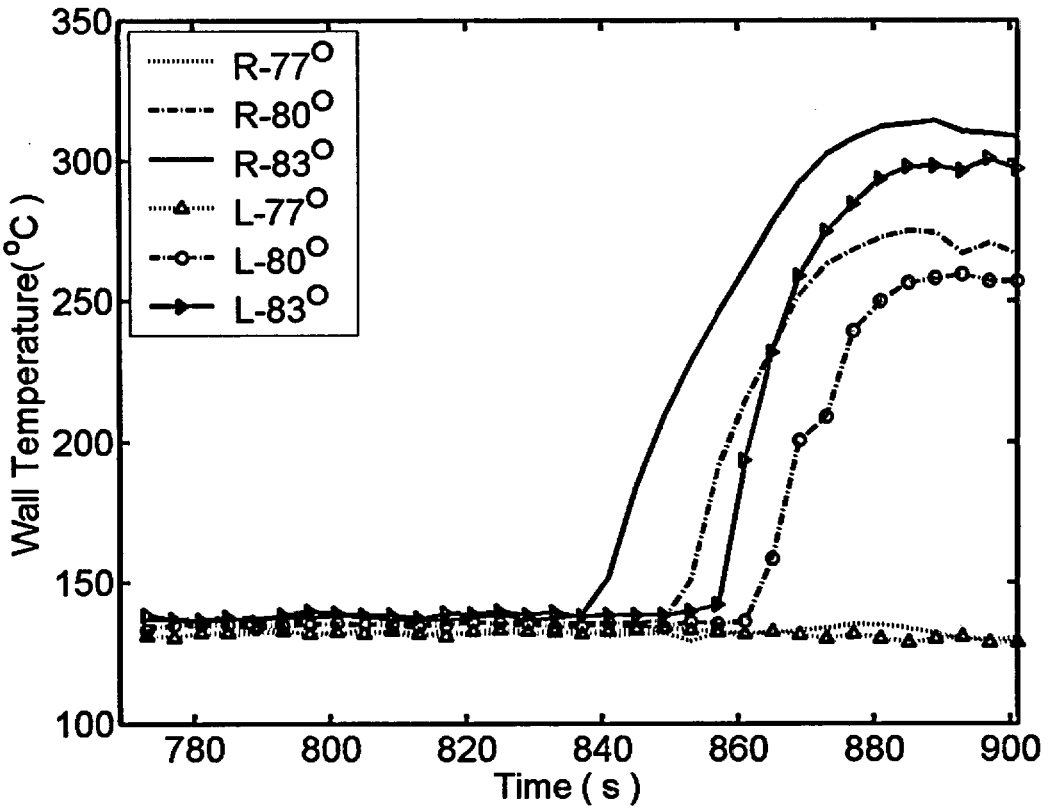

Figure A28.8. Temperature history at CHF.

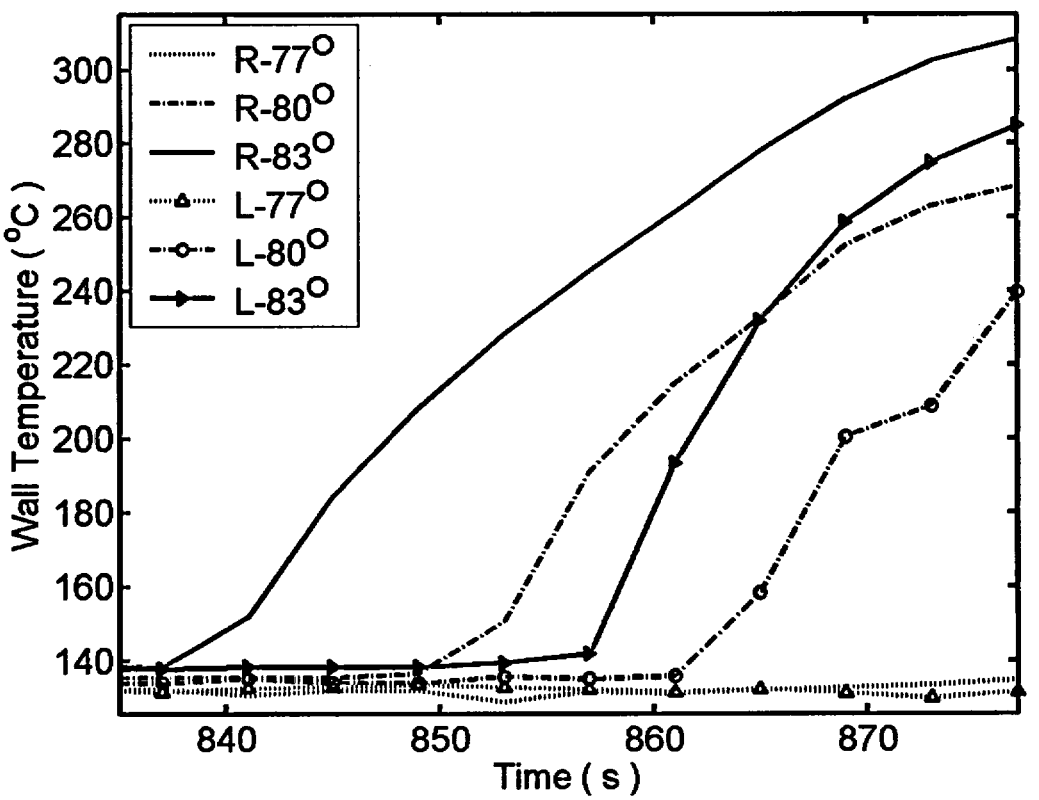

Figure A28.9. Temperature history at CHF in detail.

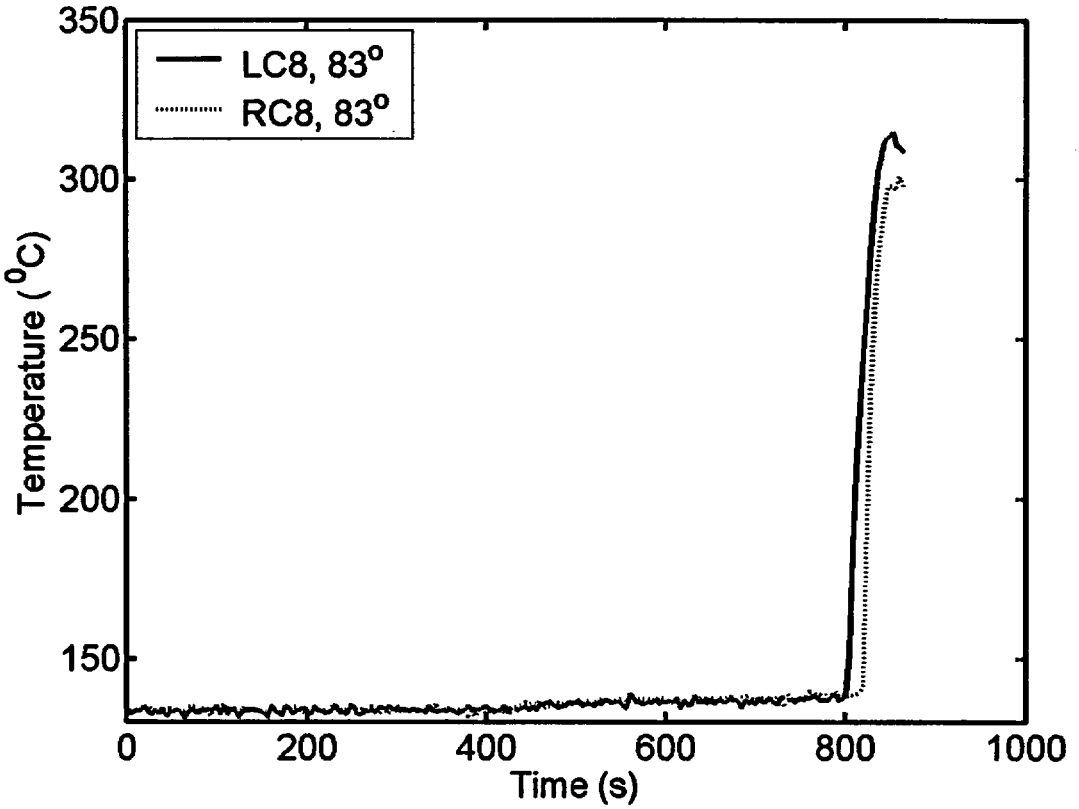

Figure A28.10 Wall temperature history measured by two thermocouples LC8 and RC8.

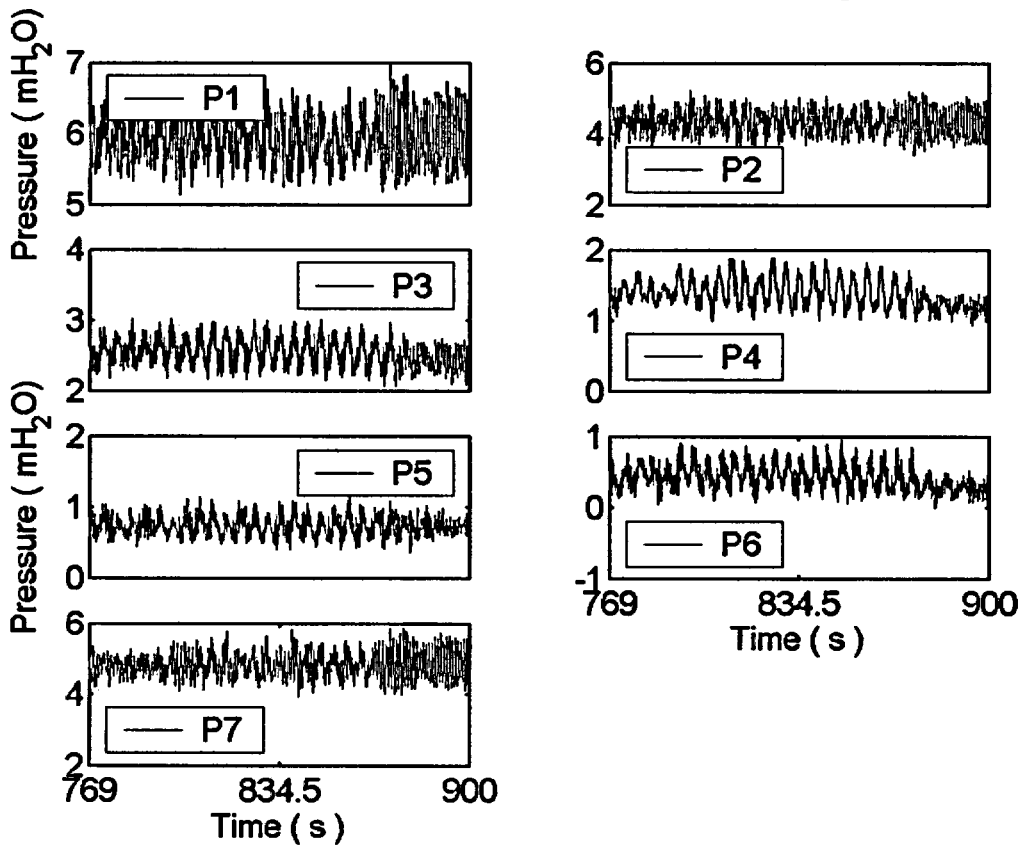

Figure A28.11. Pressure transducer data at q = 1.507 MW/m^2.

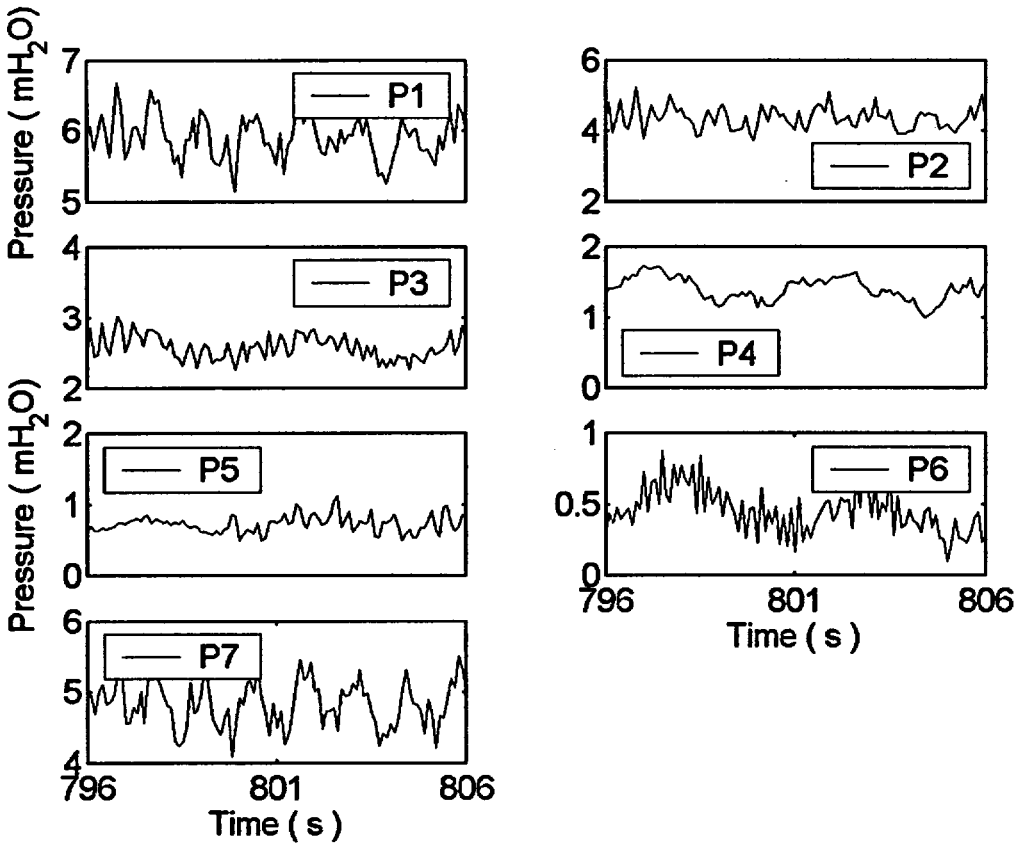

Figure A28.12. Pressure data in detail at q = 1.507 MW/m^2.

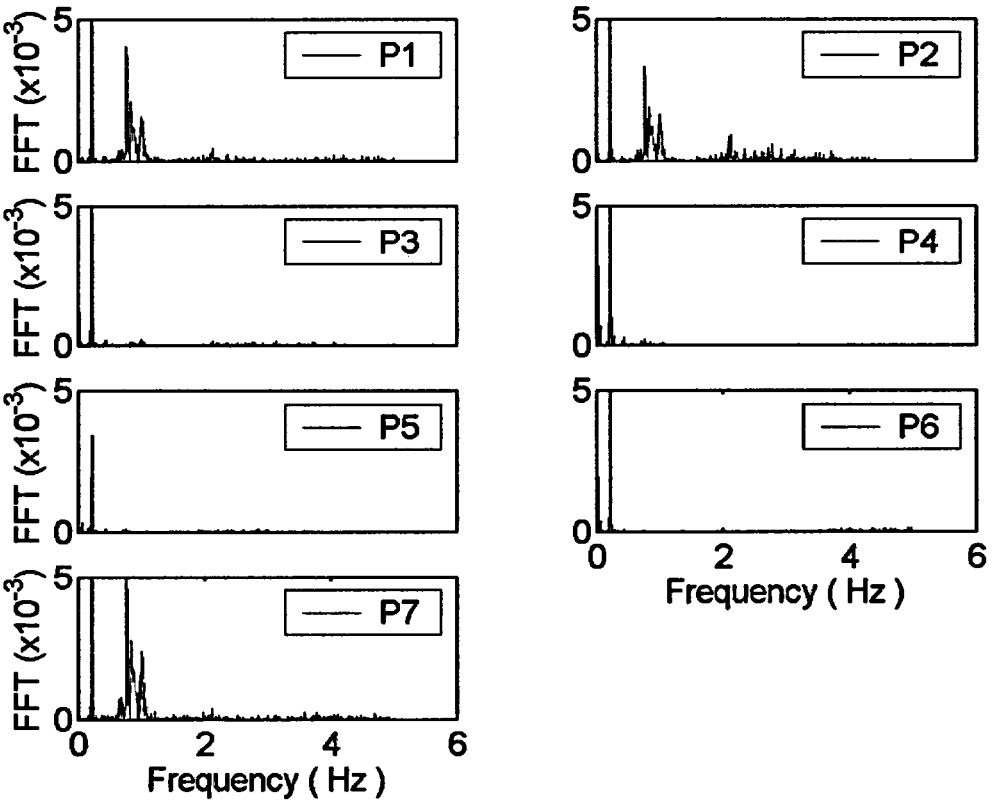

Figure A28.13. FFT of pressure time series at q = 1.507 MW/m^2.

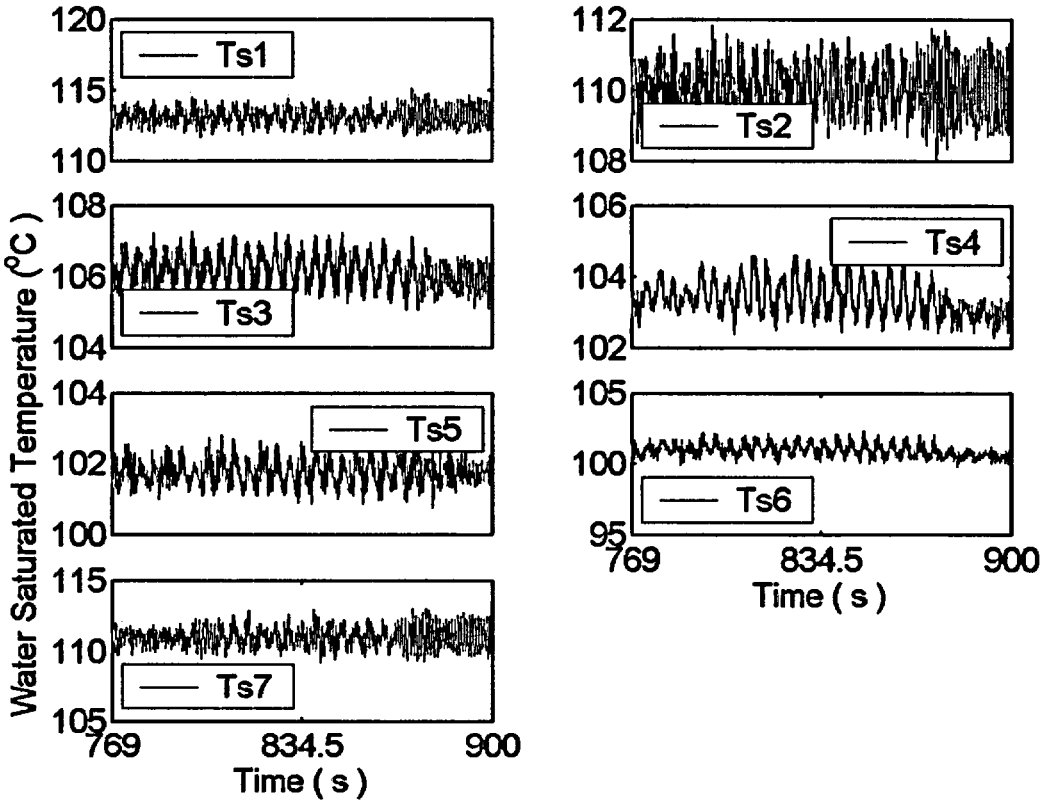

Figure A28.14. Water saturation temperature calculated from local pressure data at q = 1.507 MW/m^2.

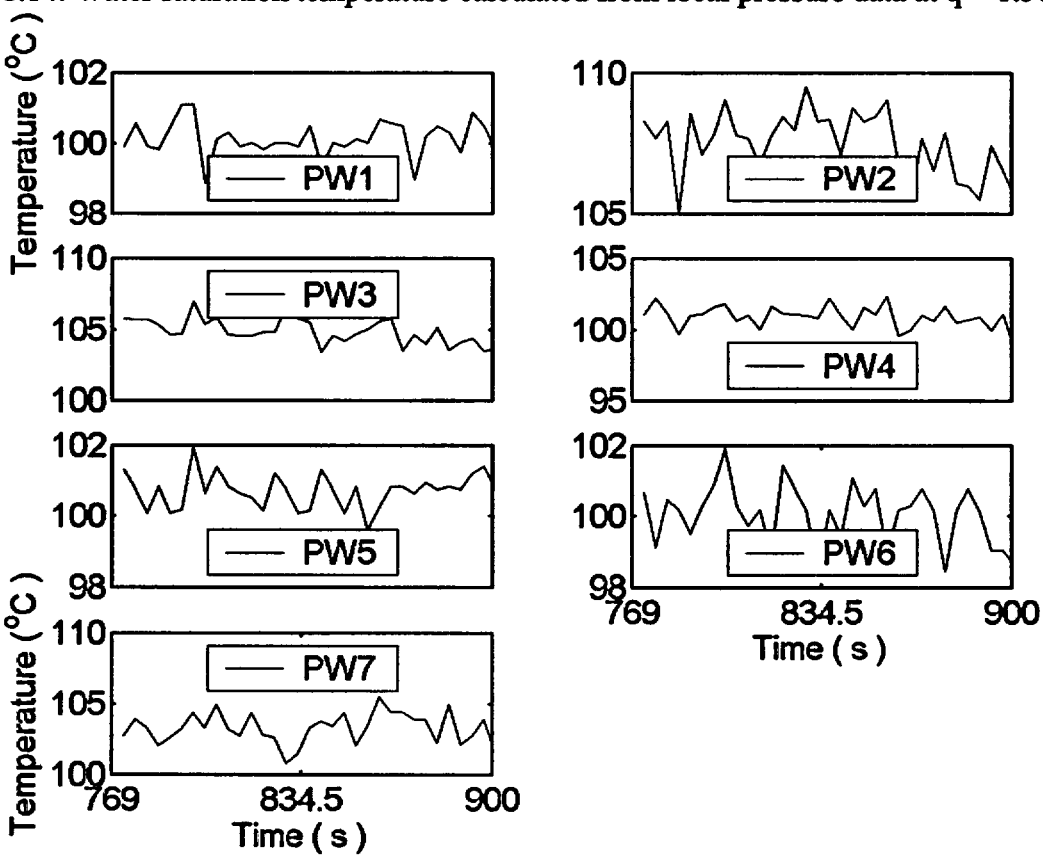

Figure A28.15. Water temperature measured at location of pressure transducer at q = 1.507 MW/m^2.

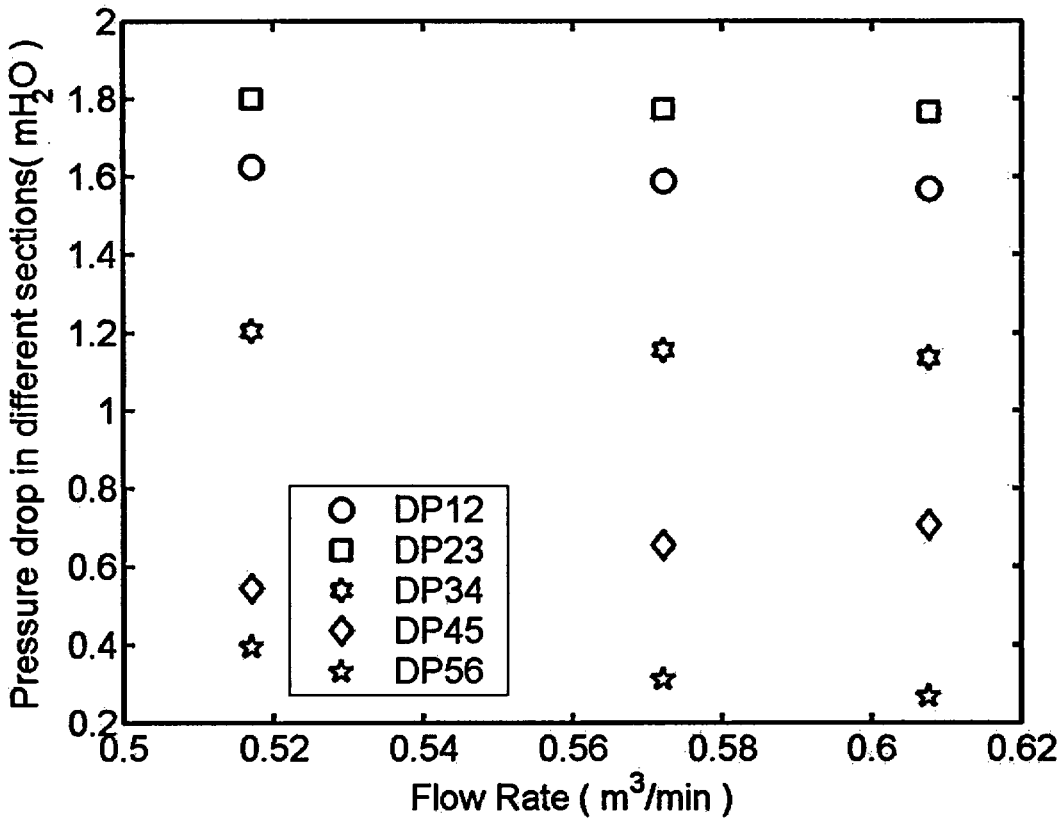

Figure A28.16 Pressure drop vs. flow rate at different heat fluxes.

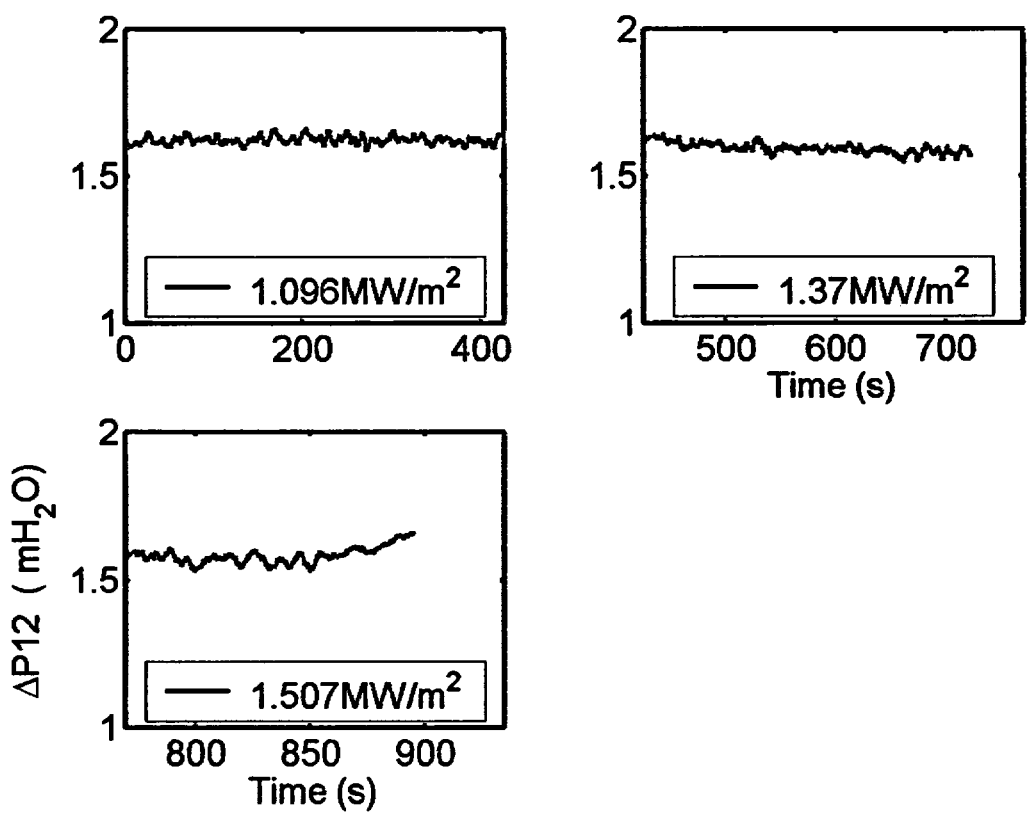

Figure A28.17. Differential Pressure ΔP12 at different heat fluxes.

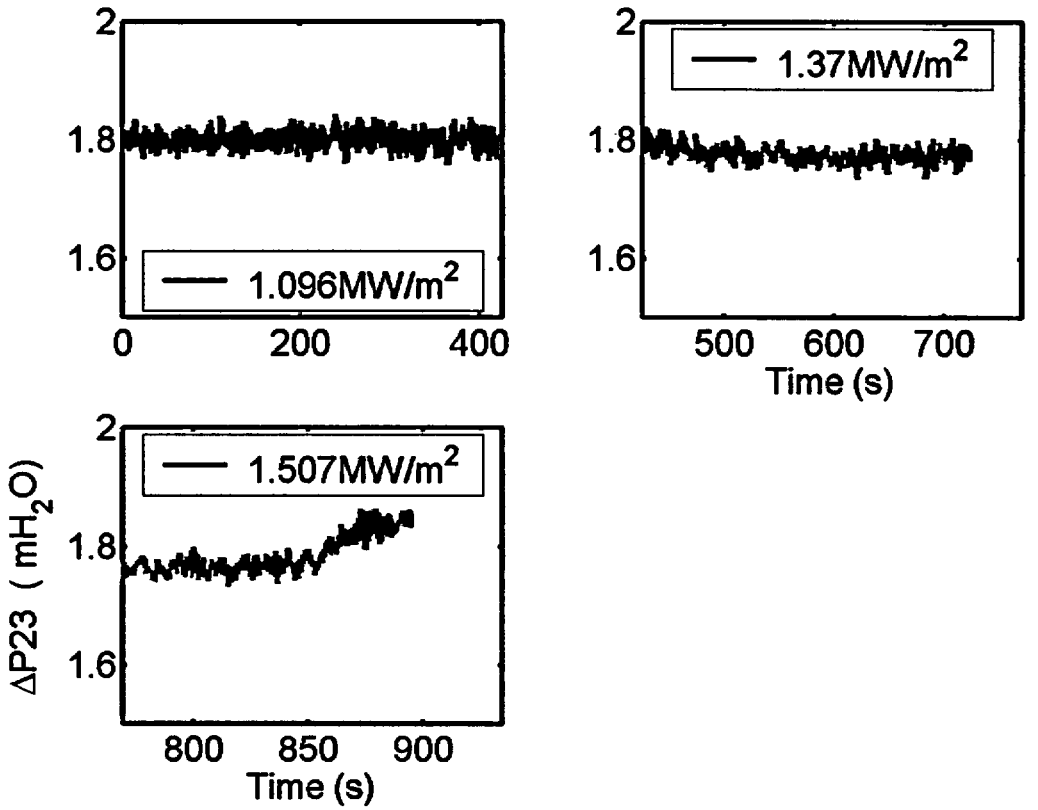

Figure A28.18. Differential Pressure ΔP23 at different heat fluxes.

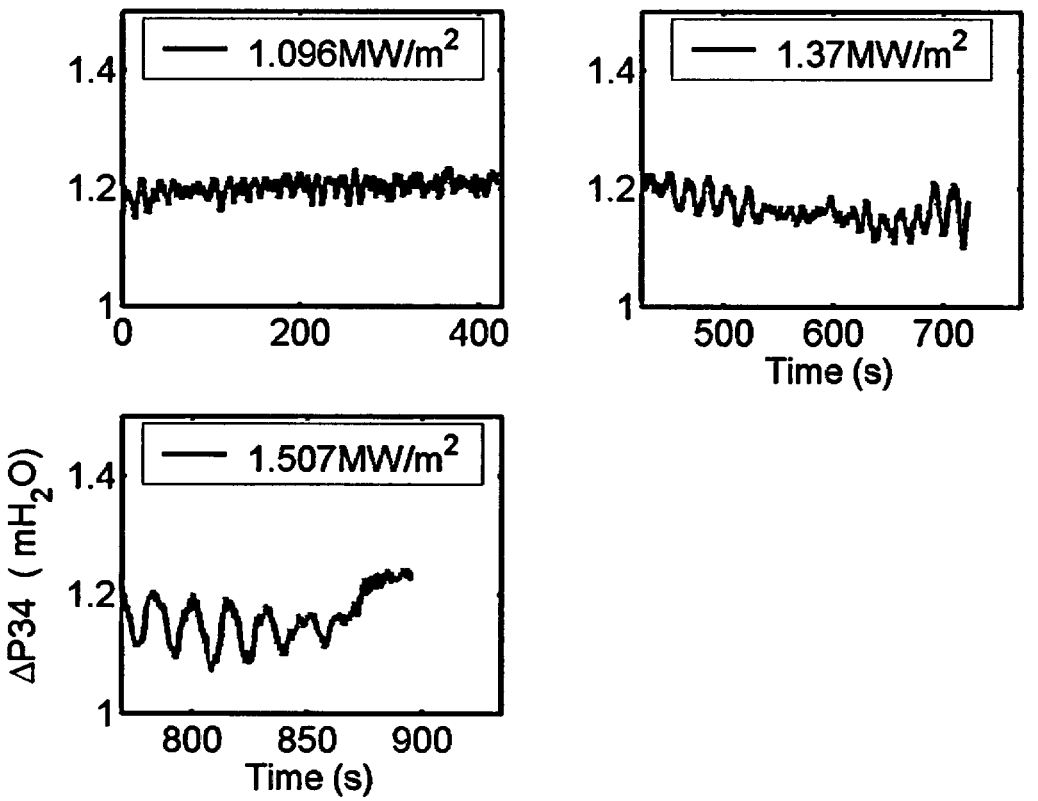

Figure A28.19. Differential Pressure ΔP34 at different heat fluxes.

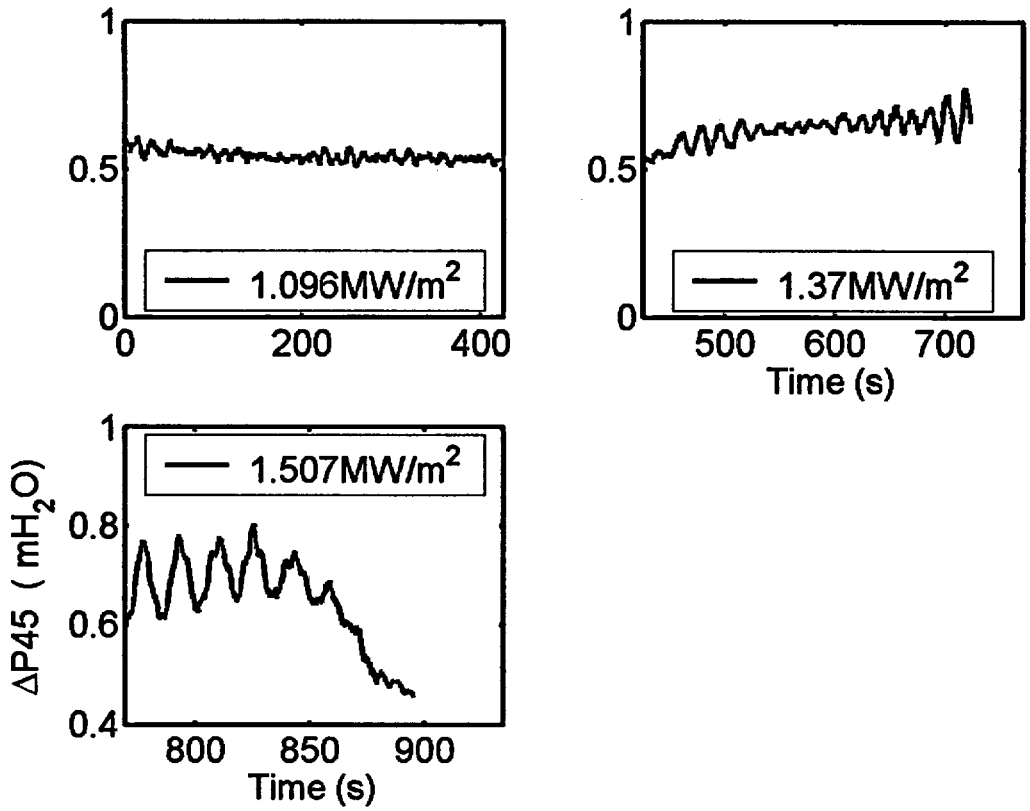

Figure A28.20. Differential Pressure ΔP45 at different heat fluxes.

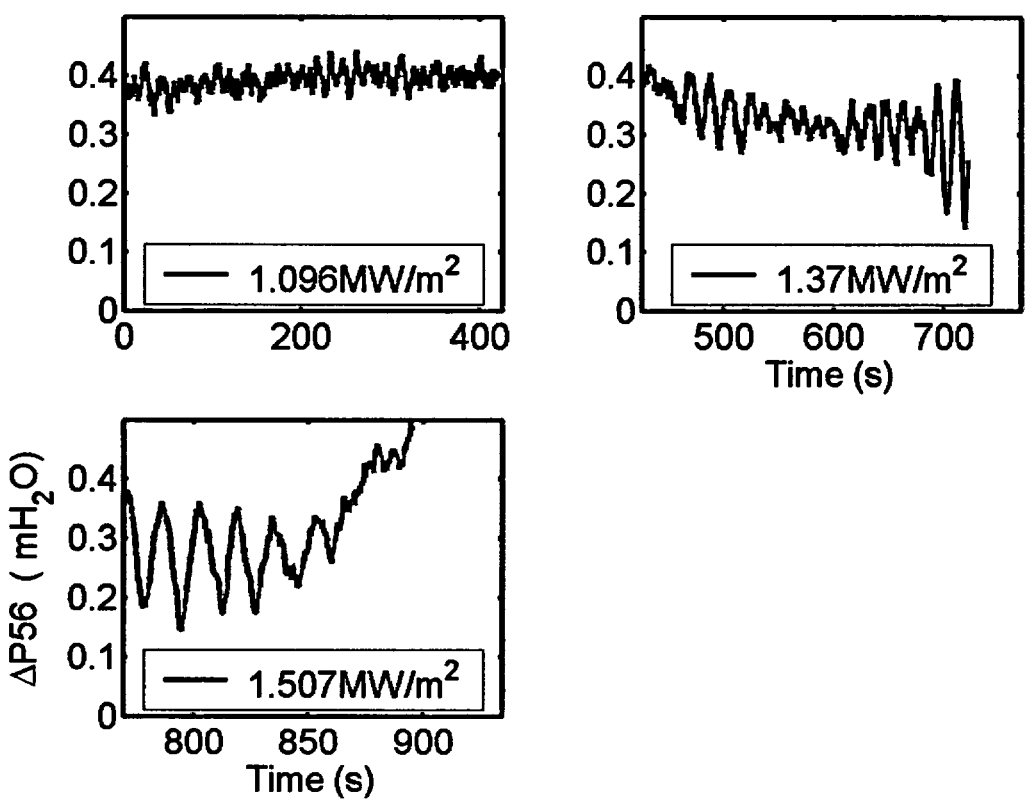

Figure A28.21 Differential Pressure ΔP56 at different heat fluxes.

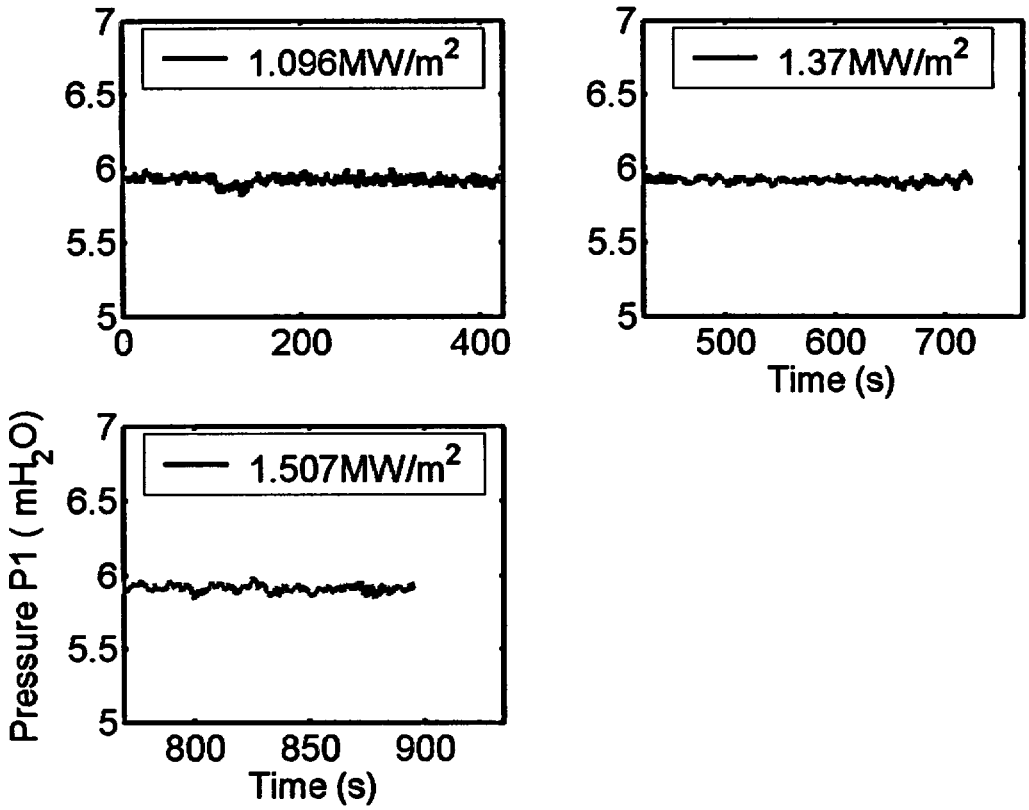

Figure A28.22 Pressure P1 at different heat fluxes.

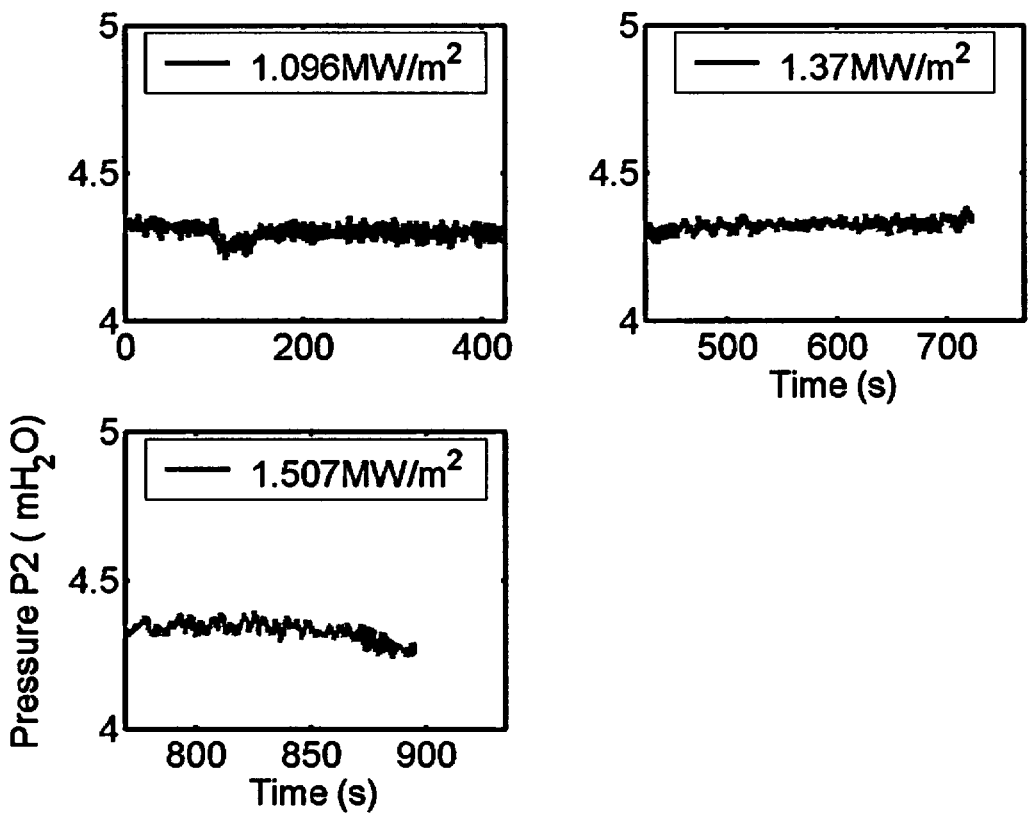

Figure A28.23 Pressure P2 at different heat fluxes.

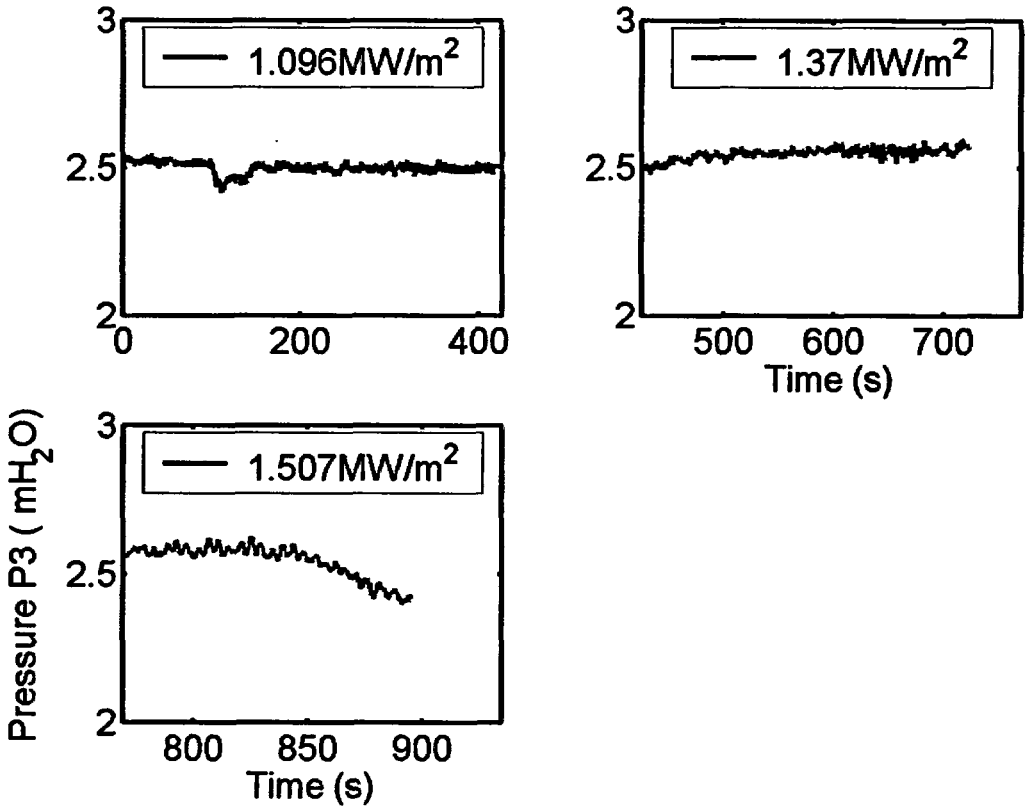

Figure A28.24 Pressure P3 at different heat fluxes.

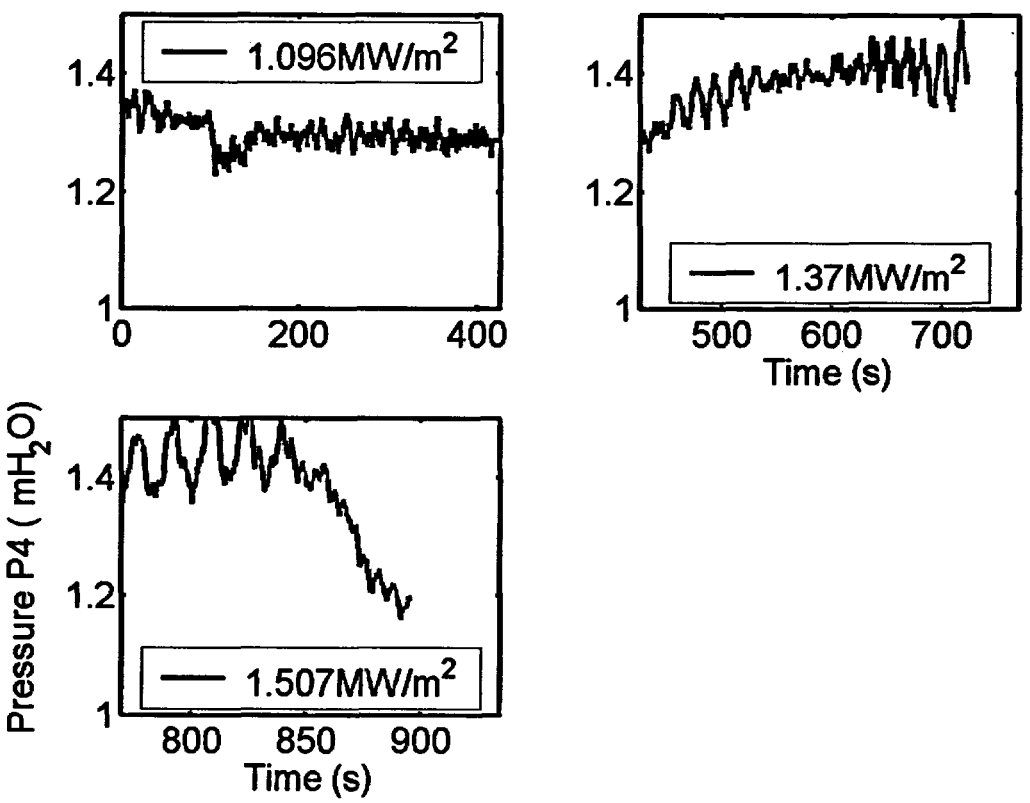

Figure A28.25 Pressure P4 at different heat fluxes.

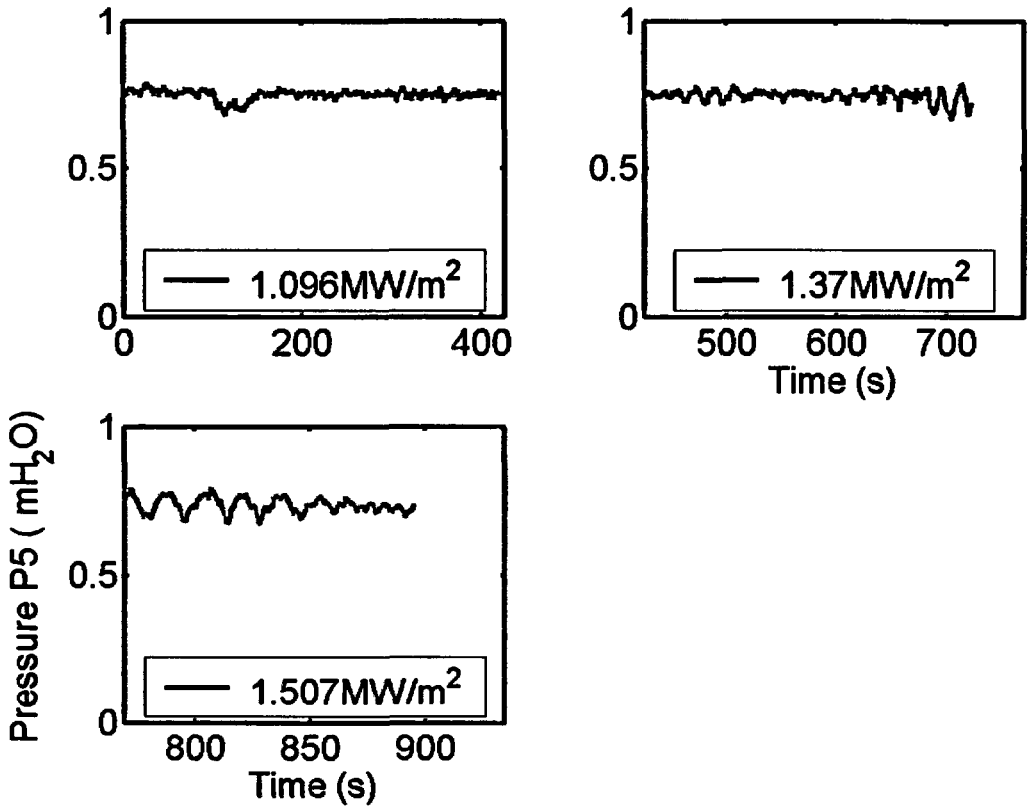

Figure A28.26 Pressure P5 at different heat fluxes.

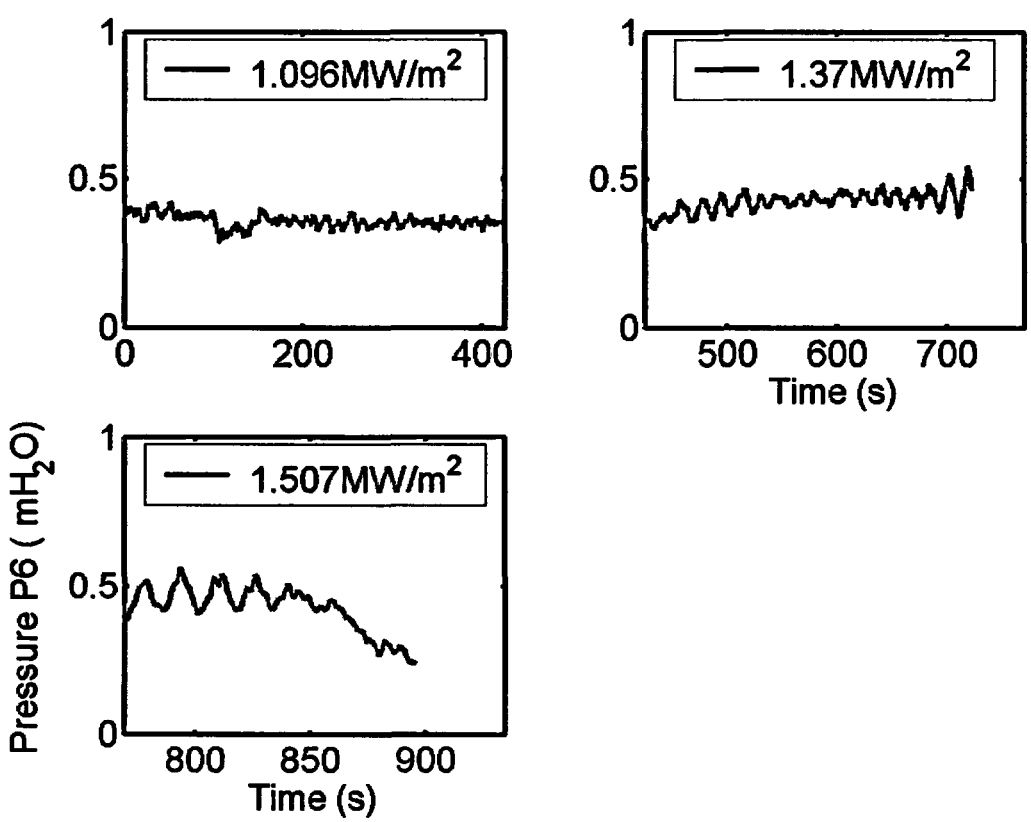

Figure A28.27 Pressure P6 at different heat fluxes.

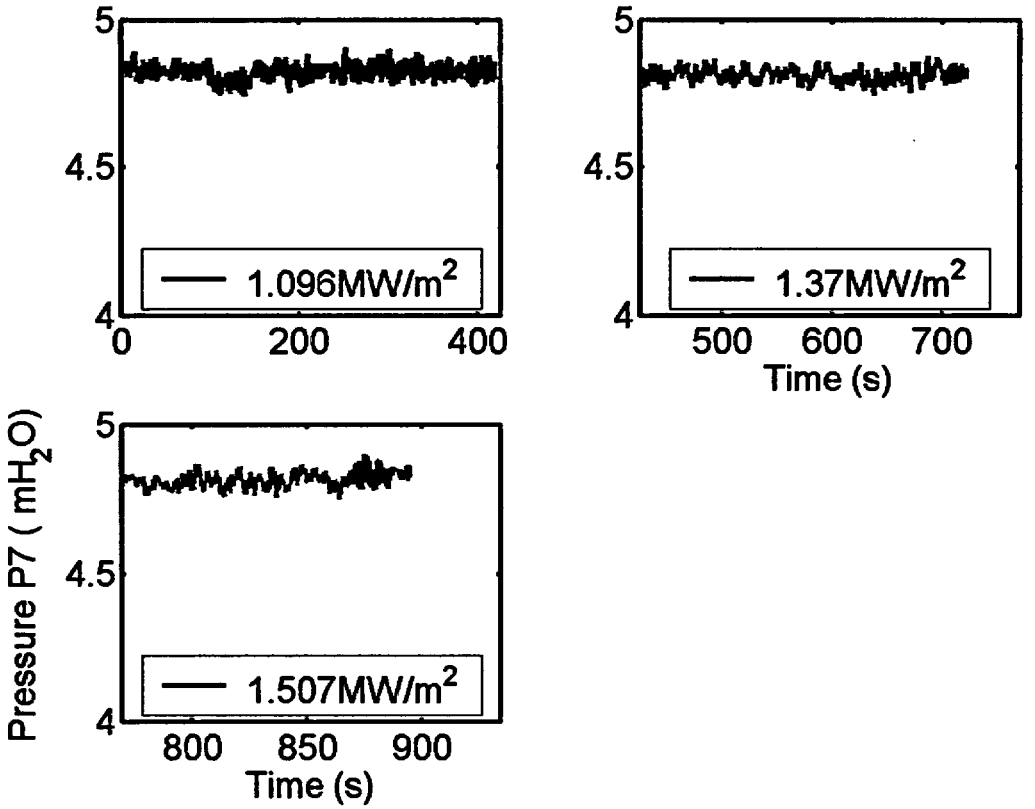

Figure A28.28 Pressure P7 at different heat fluxes.

ID #29

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T48A	1453	LC8	83	C	01/03/2003/14:20

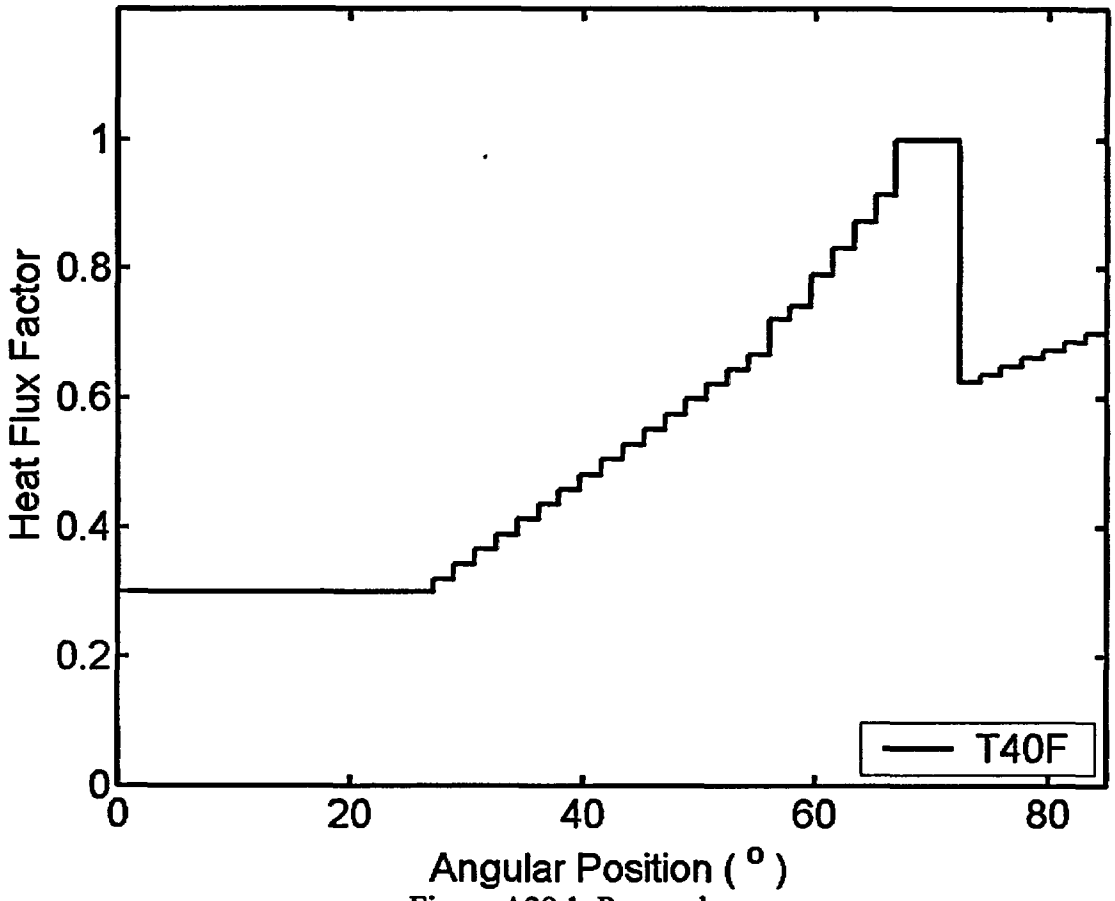

Figure A29.1. Power shape.

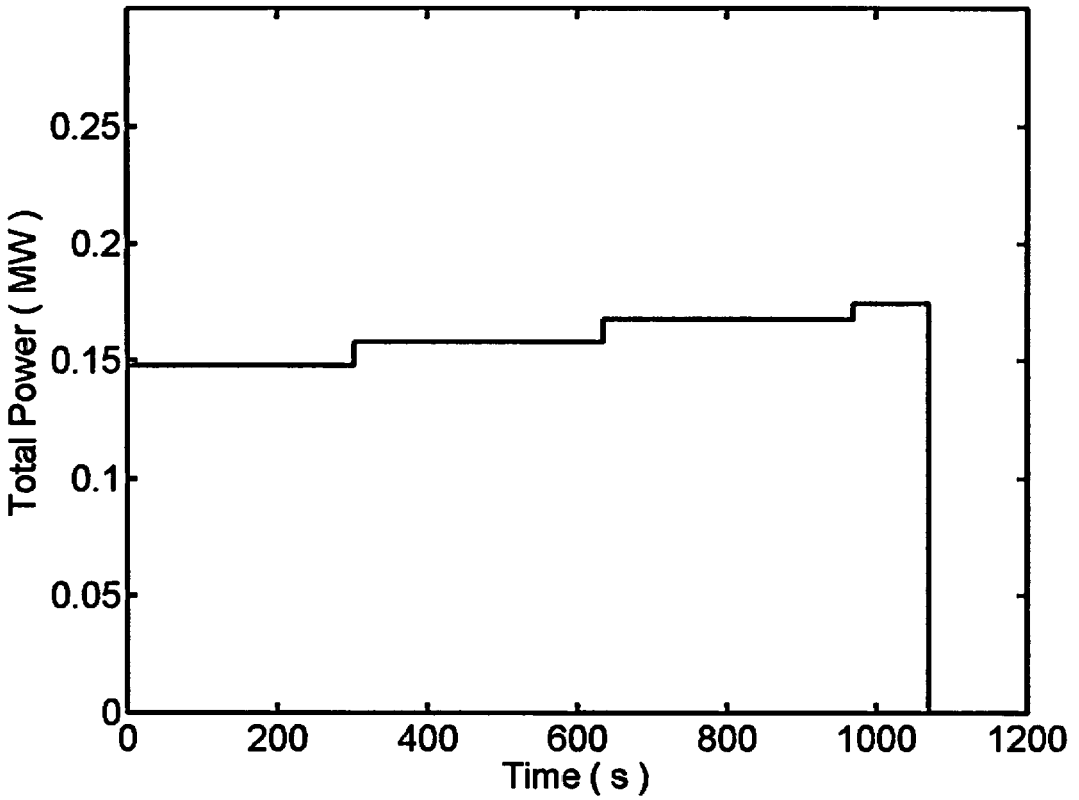

Figure A29.2. Total input power history.

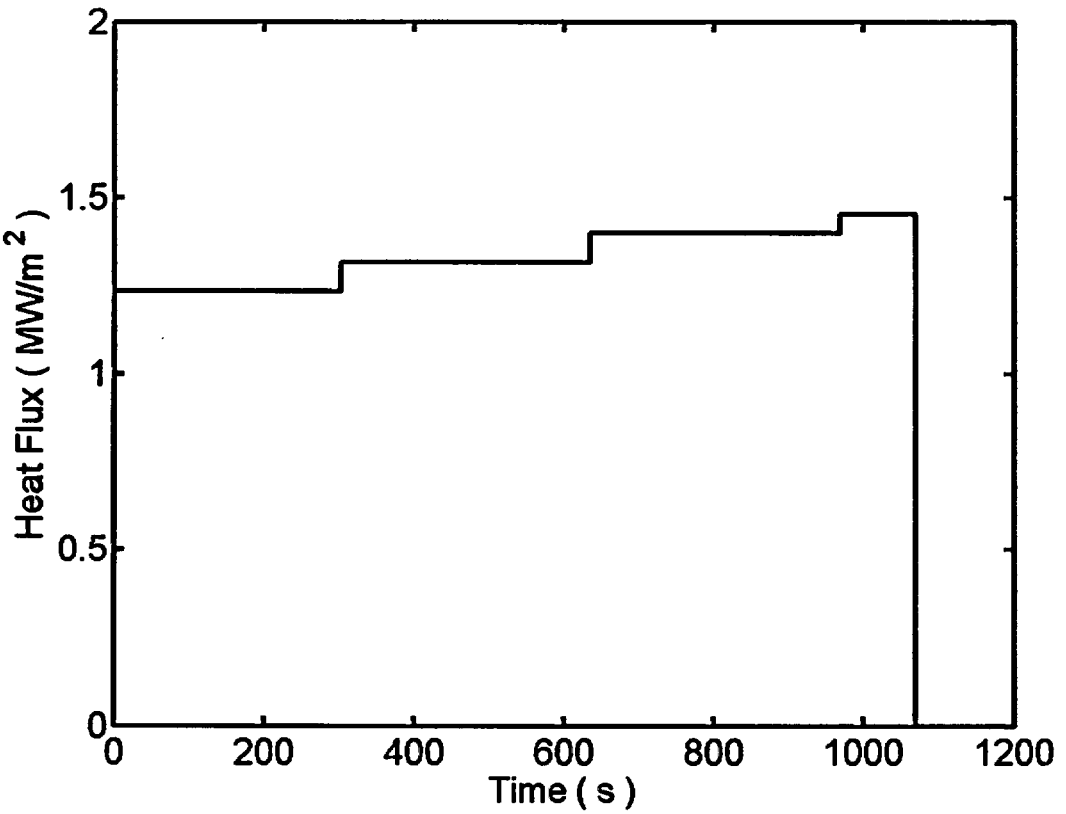

Figure A29.3. Heat flux history.

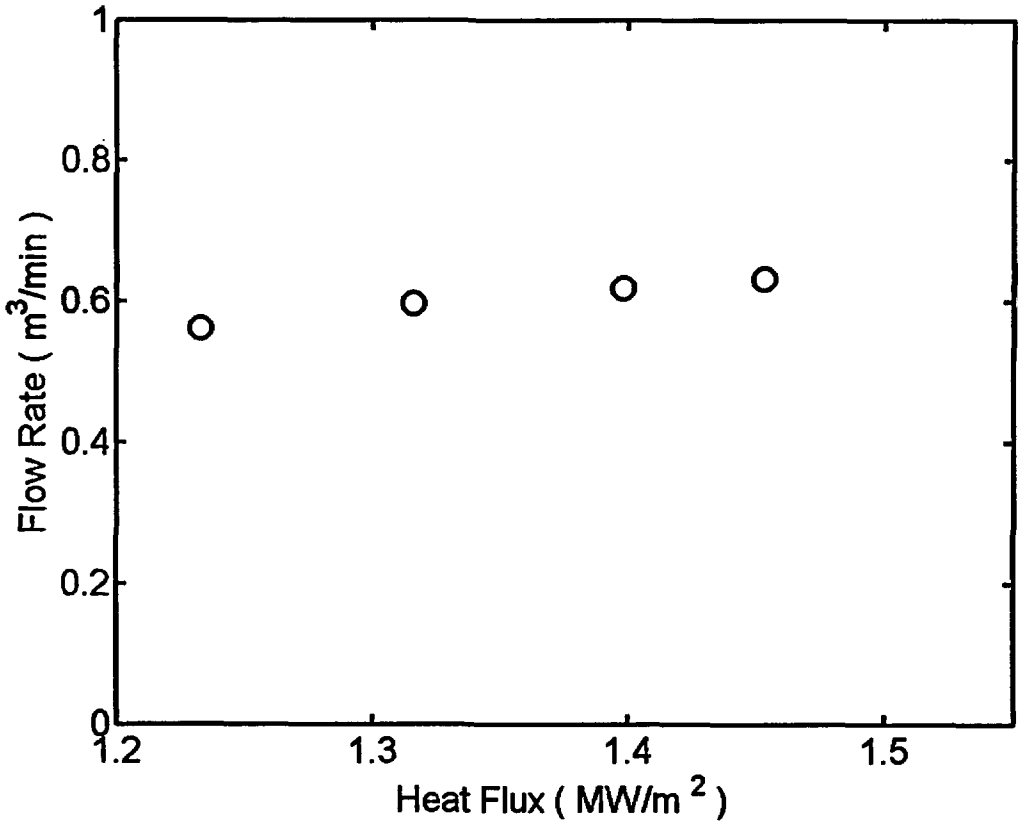

Figure A29.4. Flow rate vs. heat fluxes.

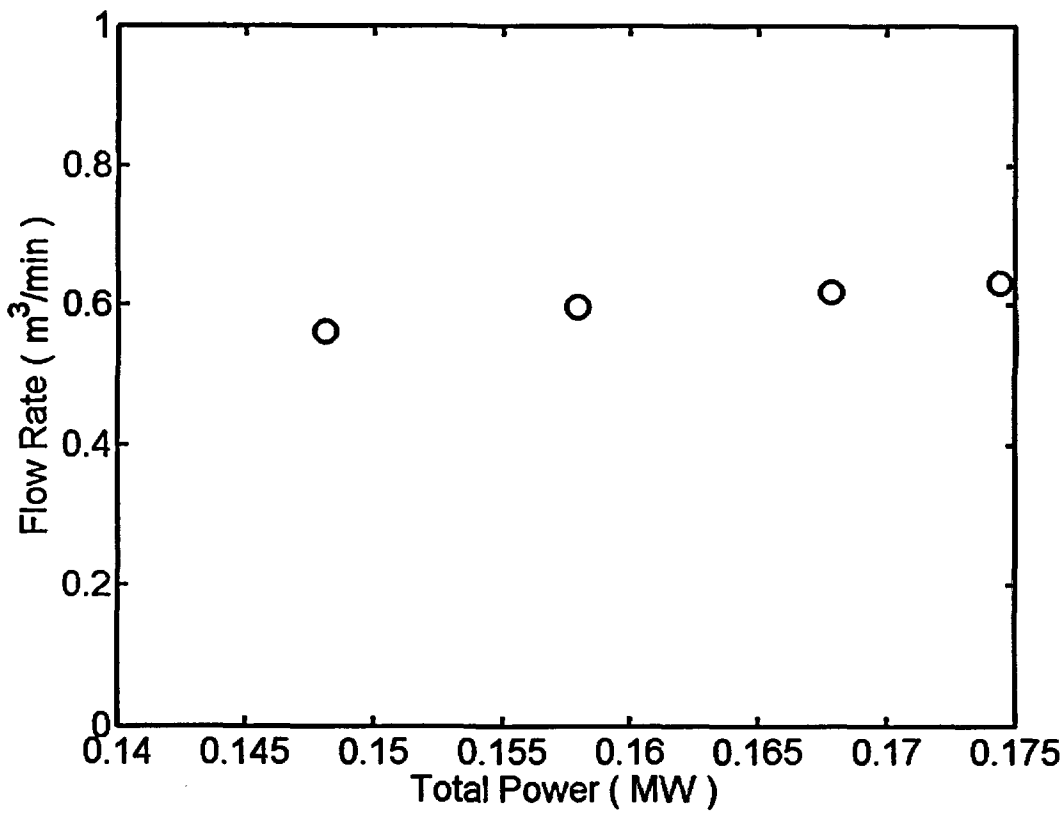

Figure A29.5. Flow rate vs. total input power.

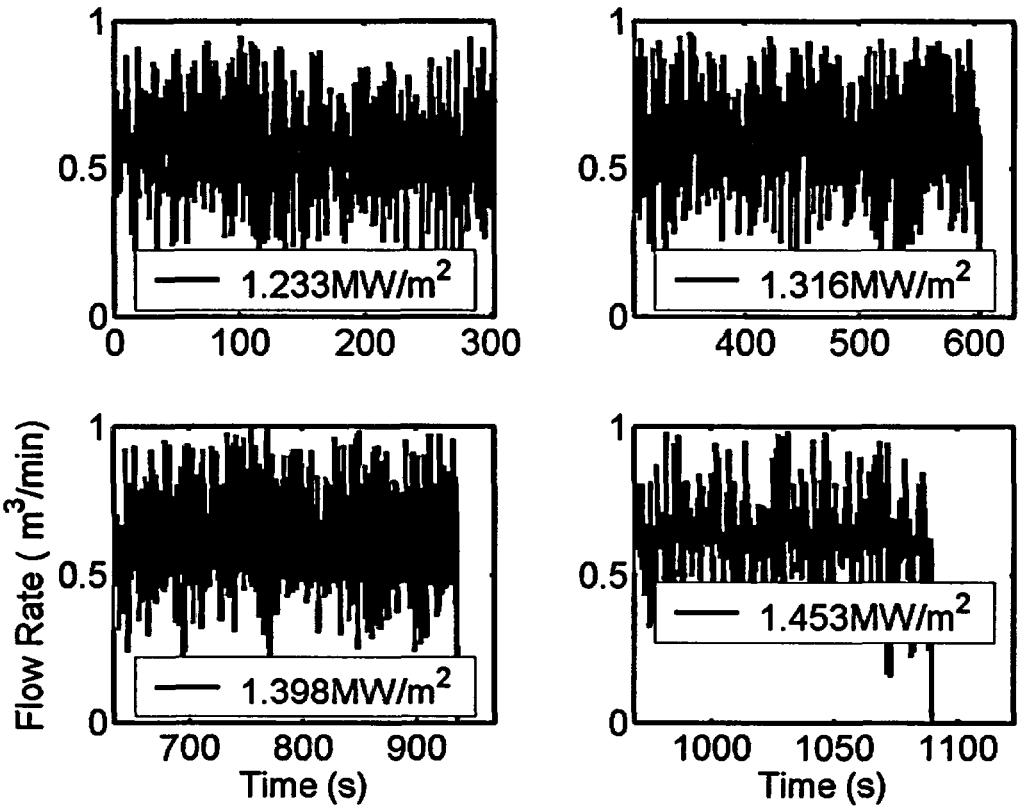

Figure A29.6. Flow rates at different heat fluxes.

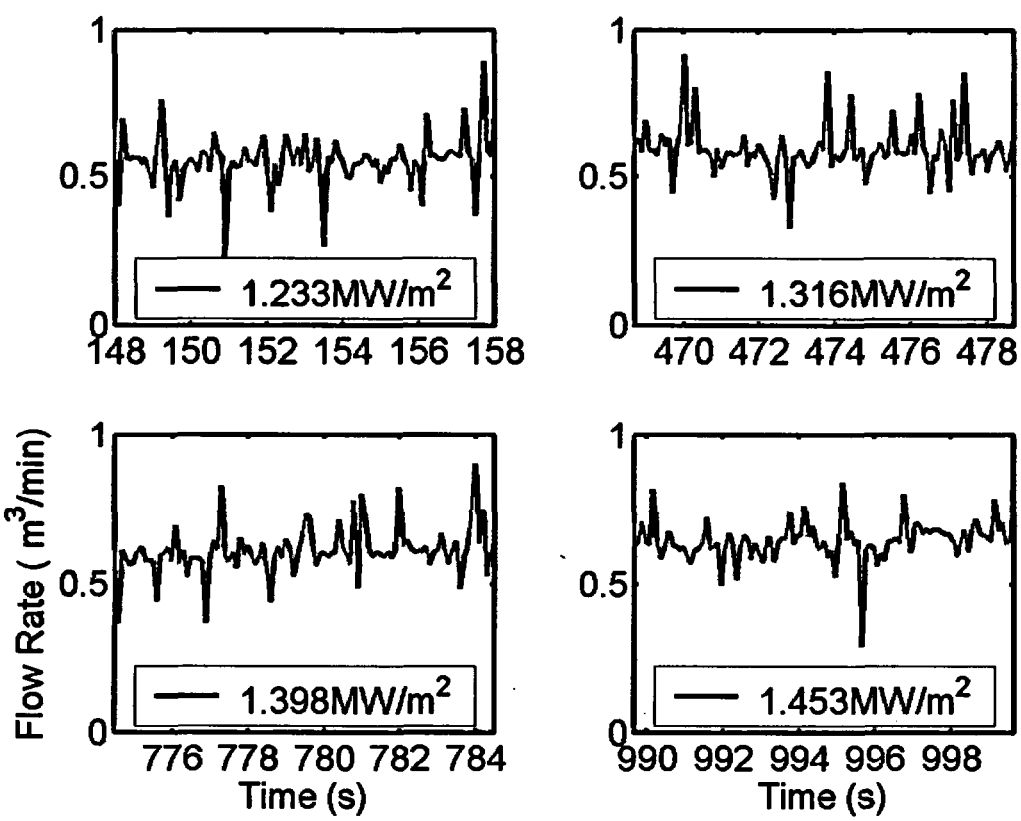

Figure A29.7. Flow rates at different heat fluxes at selected time intervals.

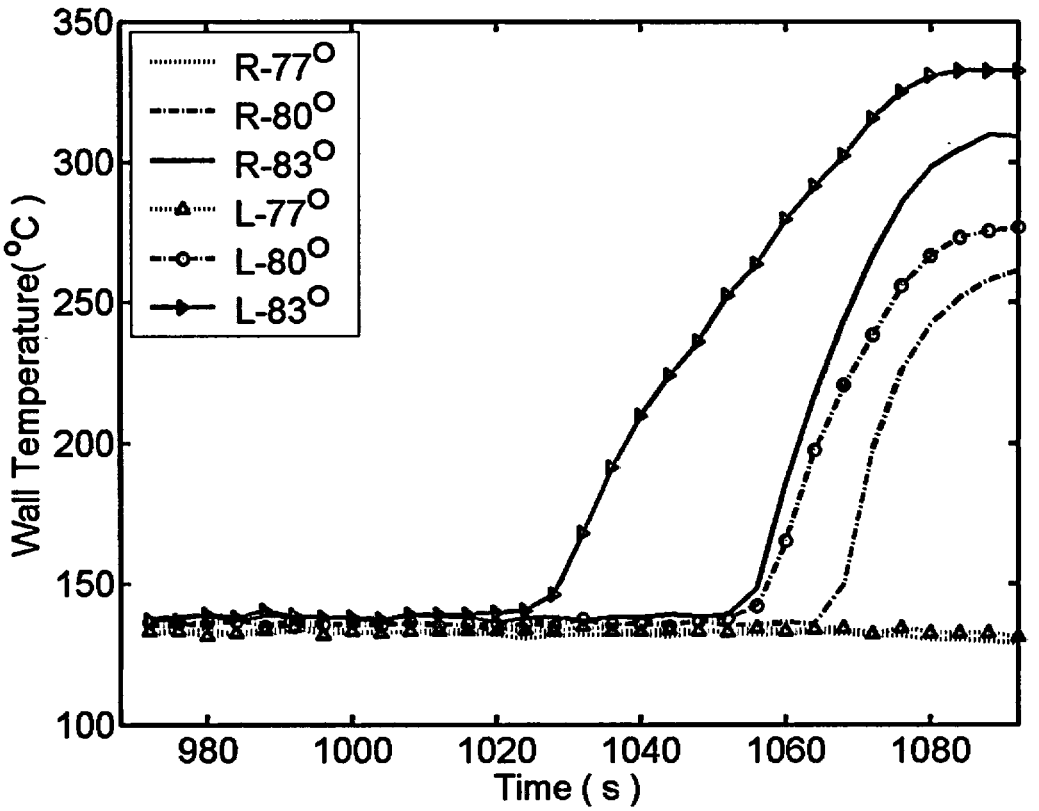

Figure A29.8. Temperature history at CHF.

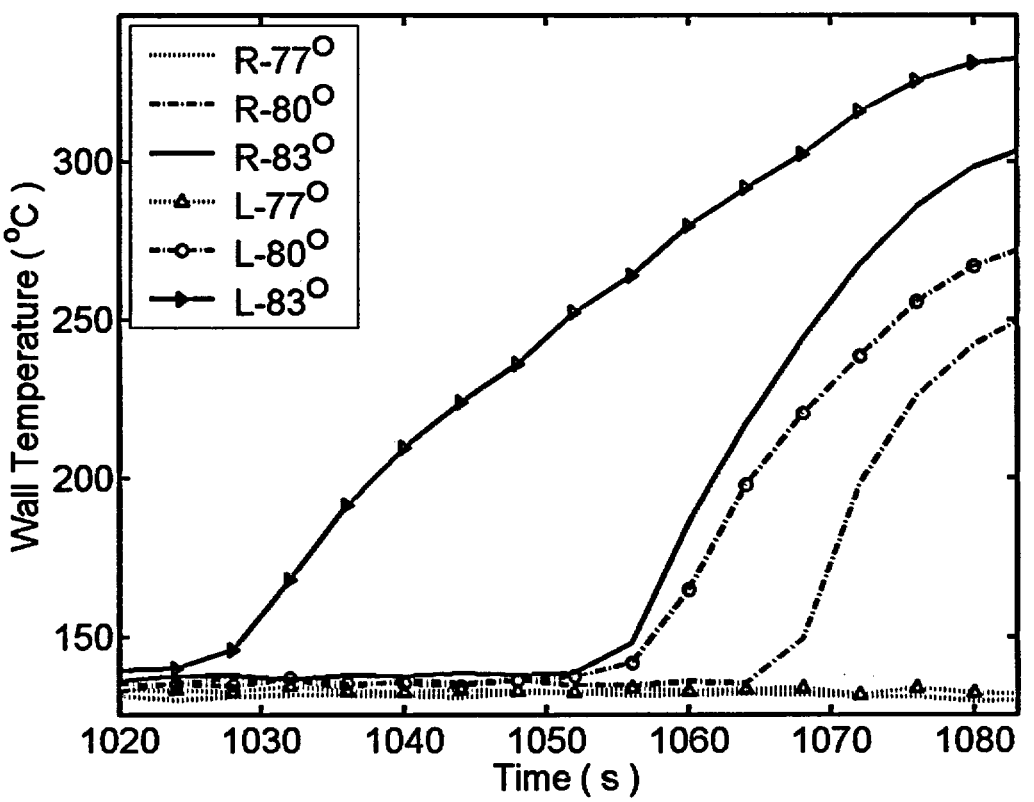

Figure A29.9. Temperature history at CHF in detail.

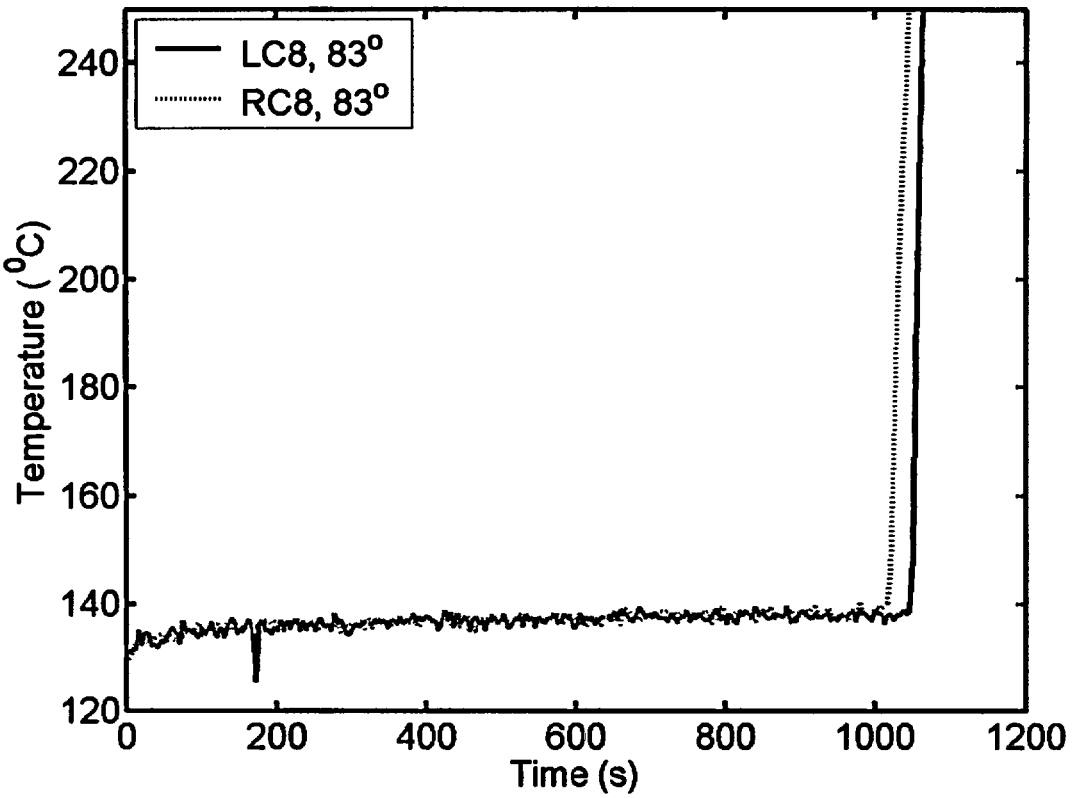

Figure A29.10 Wall temperature history measured by two thermocouples LC8 and RC8.

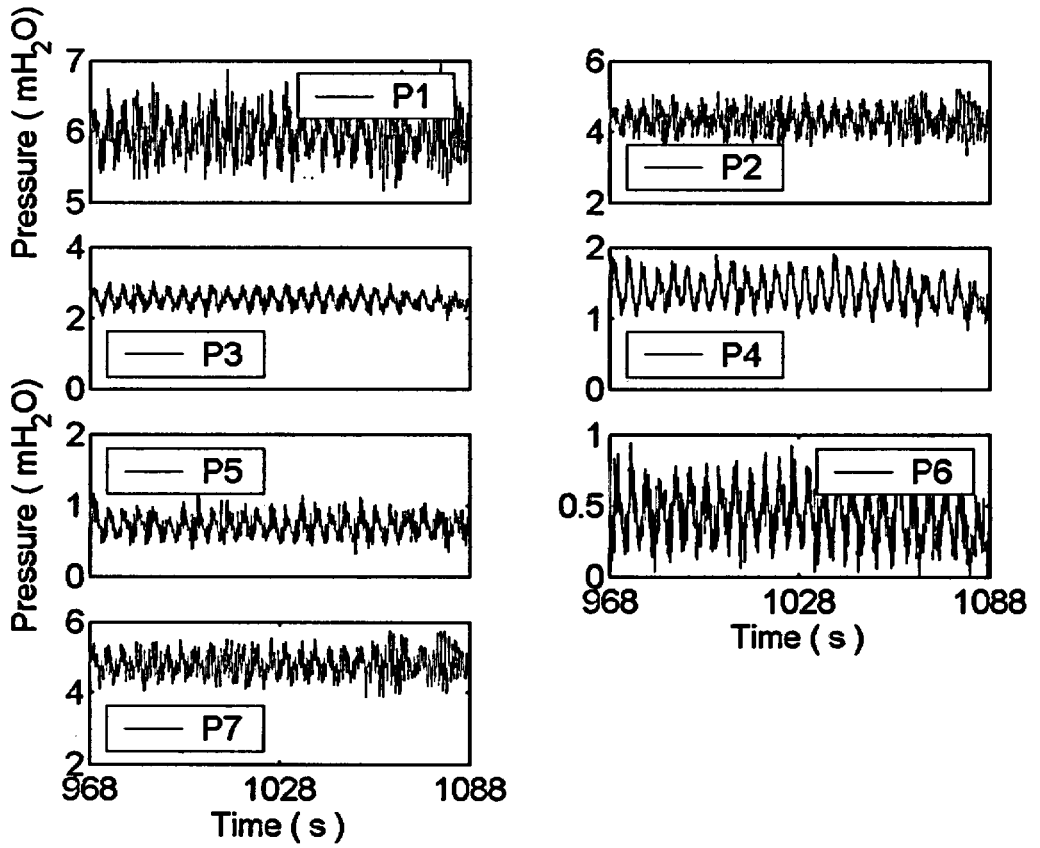

Figure A29.11. Pressure transducer data at q = 1.453 MW/m^2.

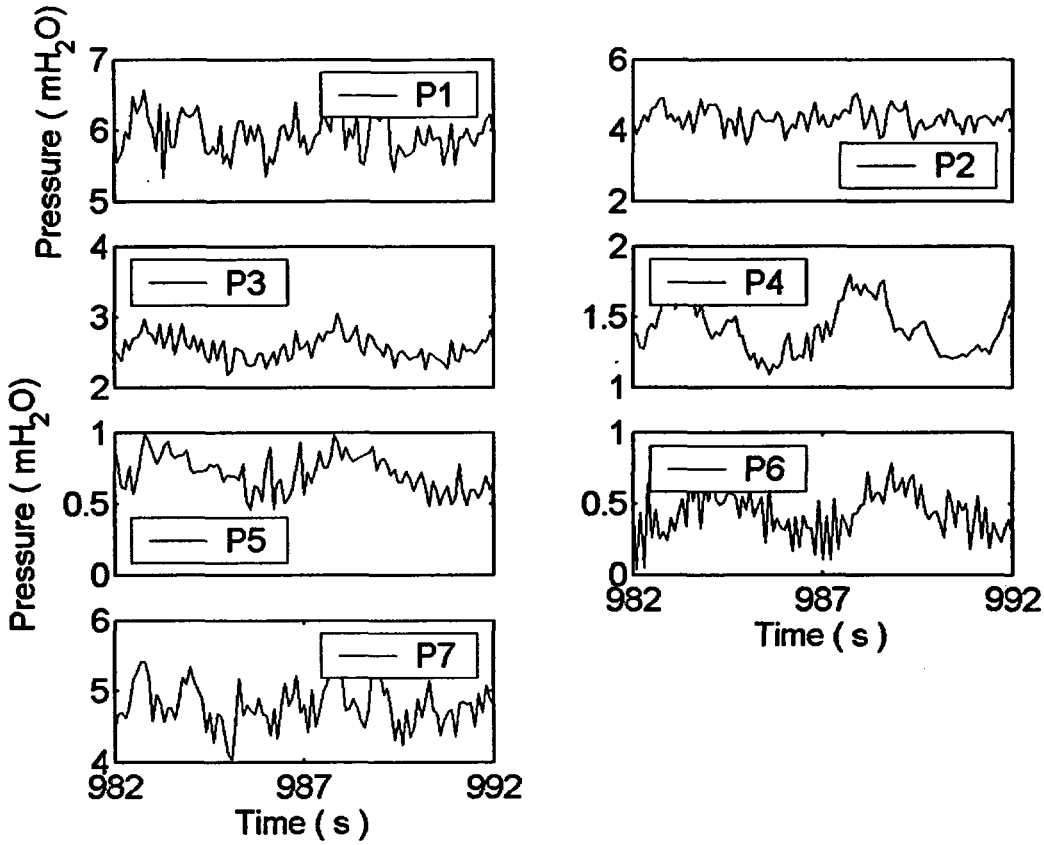

Figure A29.12. Pressure data in detail at q = 1.453 MW/m^2.

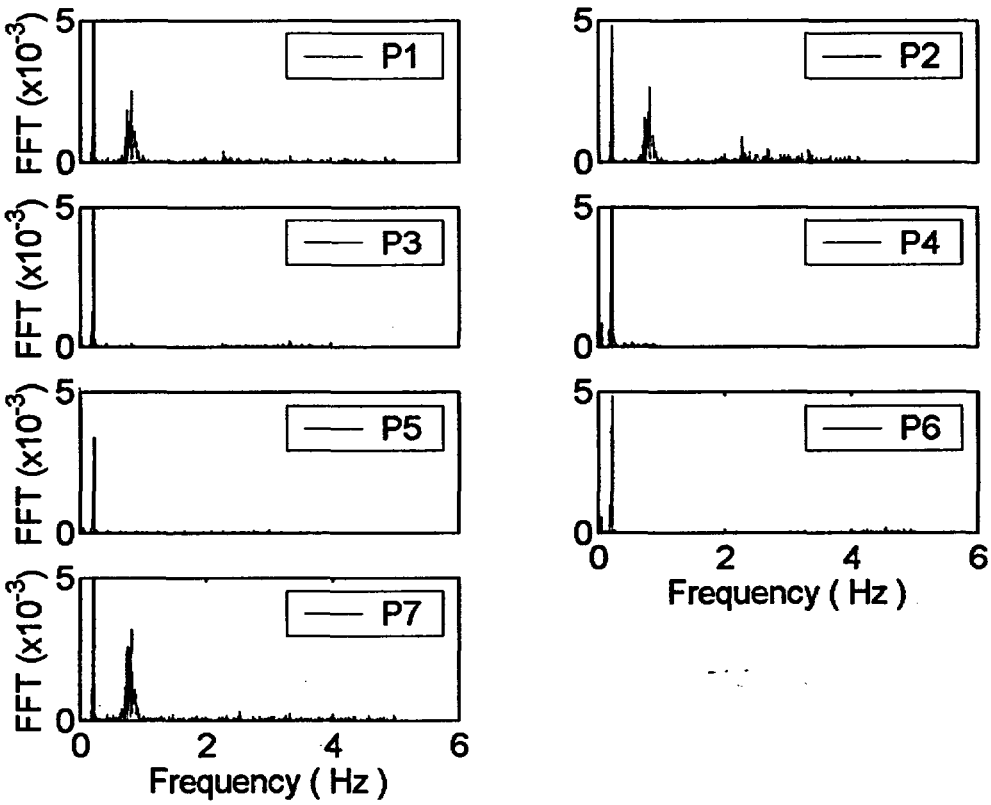

Figure A29.13. FFT of pressure time series at q = 1.453 MW/m^2.

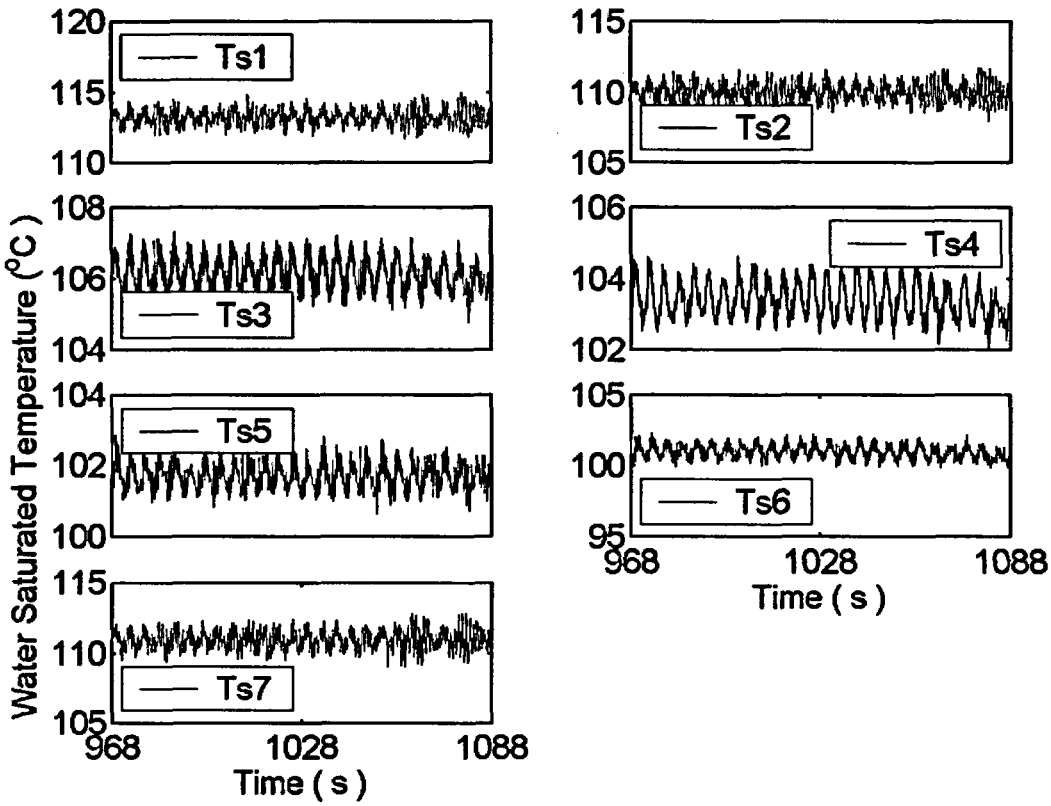

Figure A29.14. Water saturation temperature calculated from local pressure data at q = 1.453 MW/m^2.

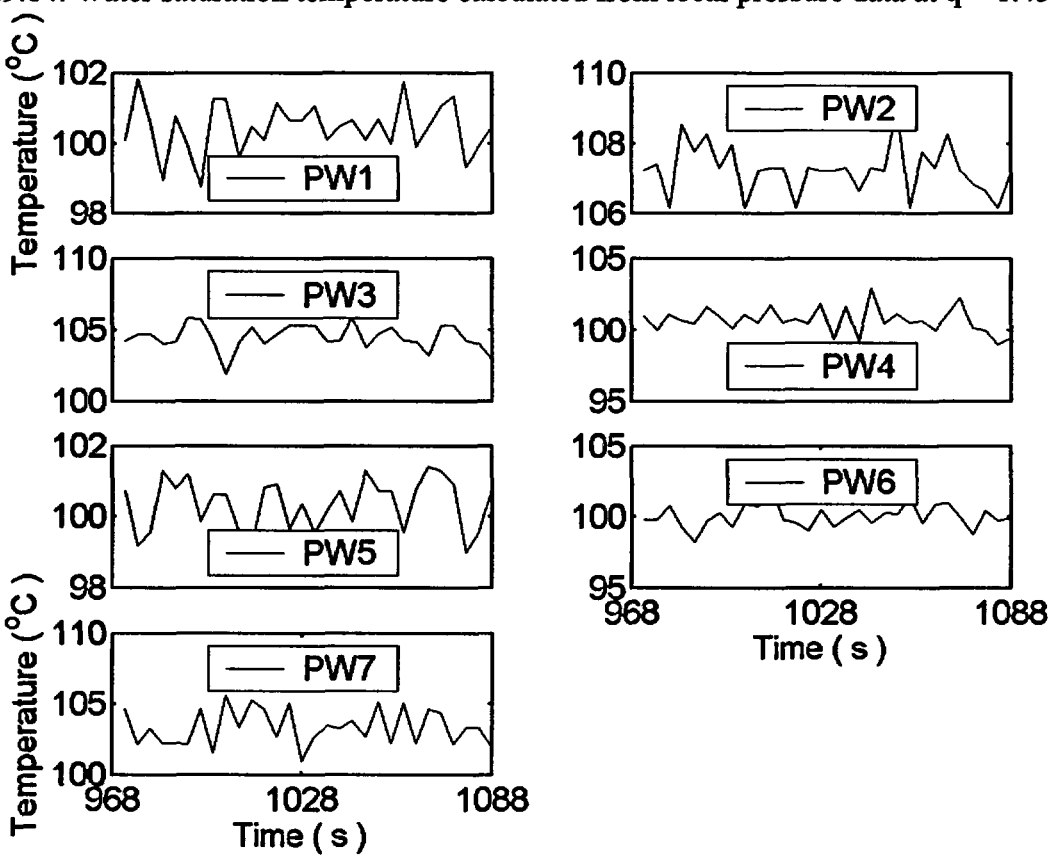

Figure A29.15. Water temperature measured at location of pressure transducer at q = 1.453 MW/m^2.

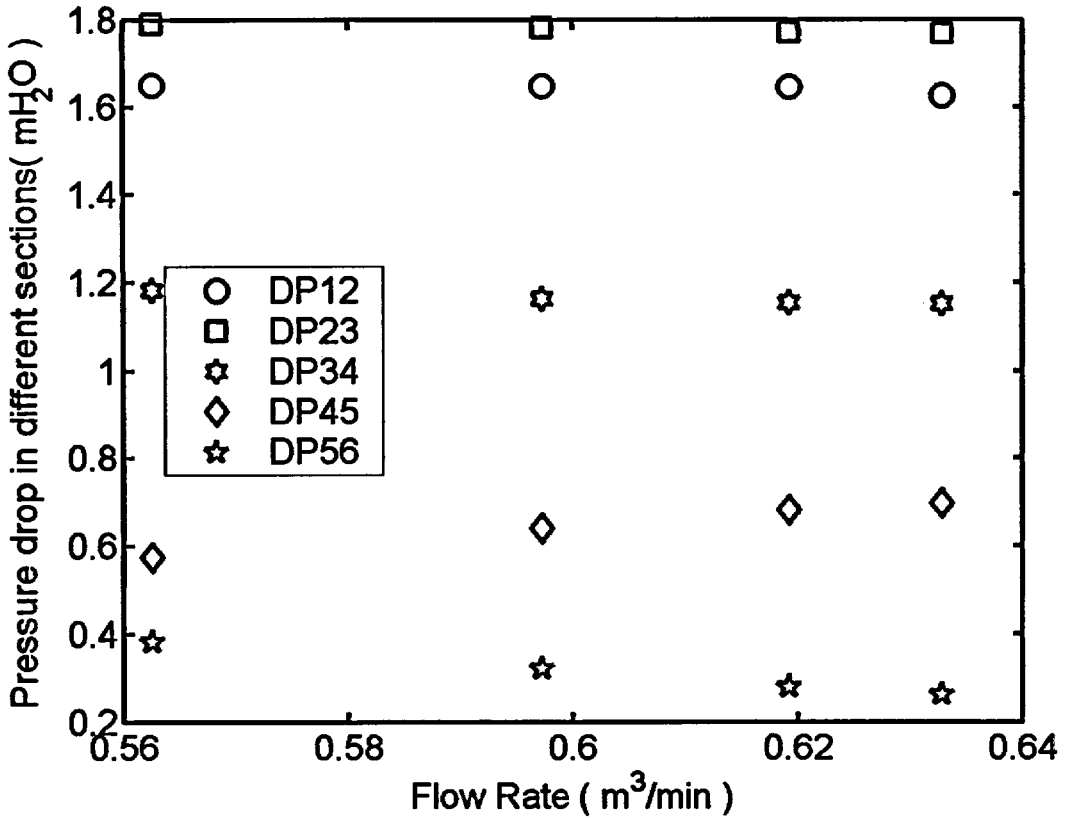

Figure A29.16 Pressure drop vs. flow rate at different heat fluxes.

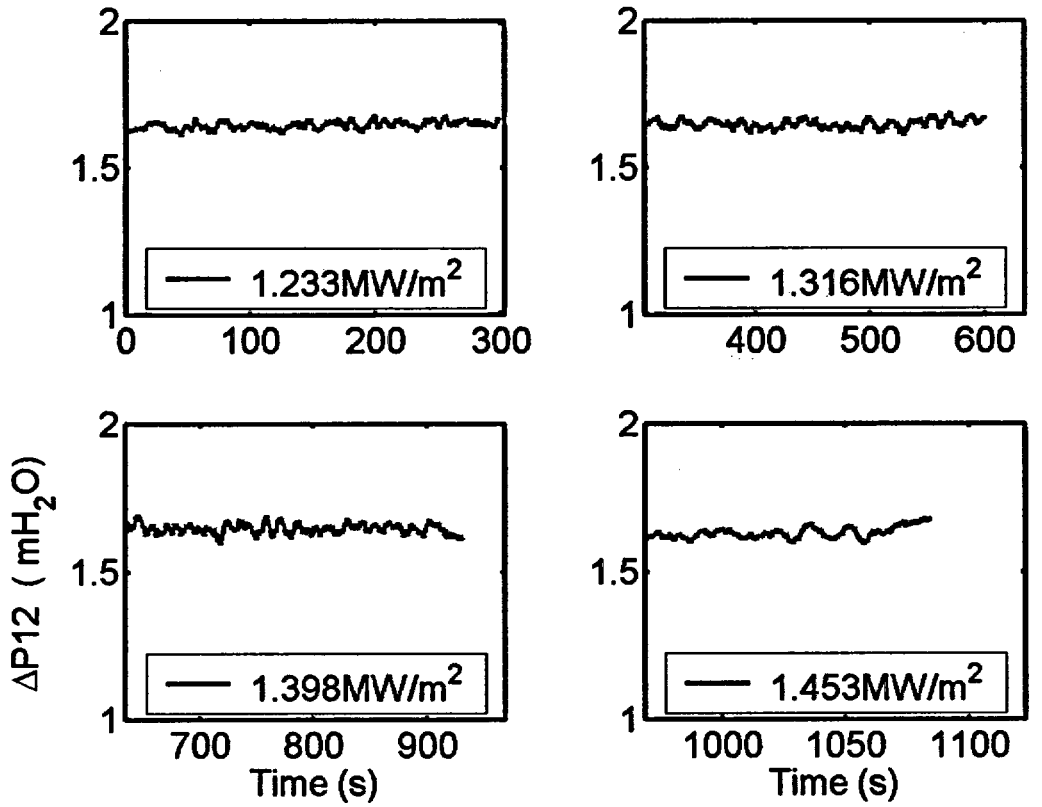

Figure A29.17. Differential Pressure ΔP12 at different heat fluxes.

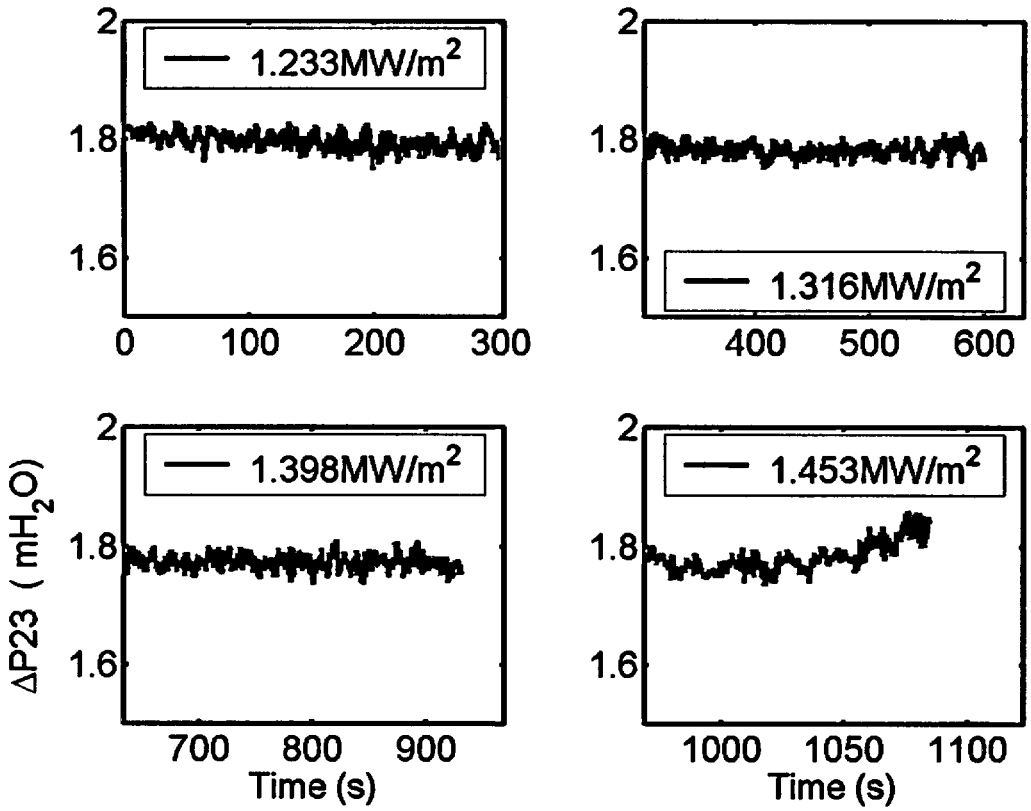

Figure A29.18. Differential Pressure ΔP23 at different heat fluxes.

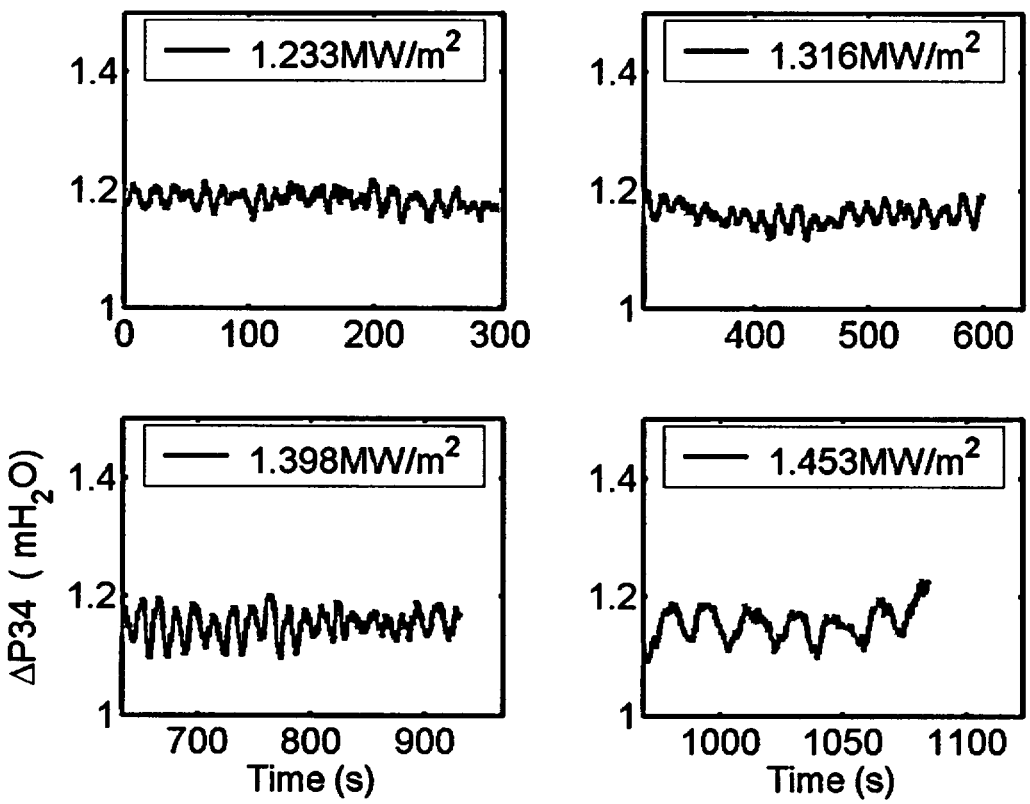

Figure A29.19. Differential Pressure ΔP34 at different heat fluxes.

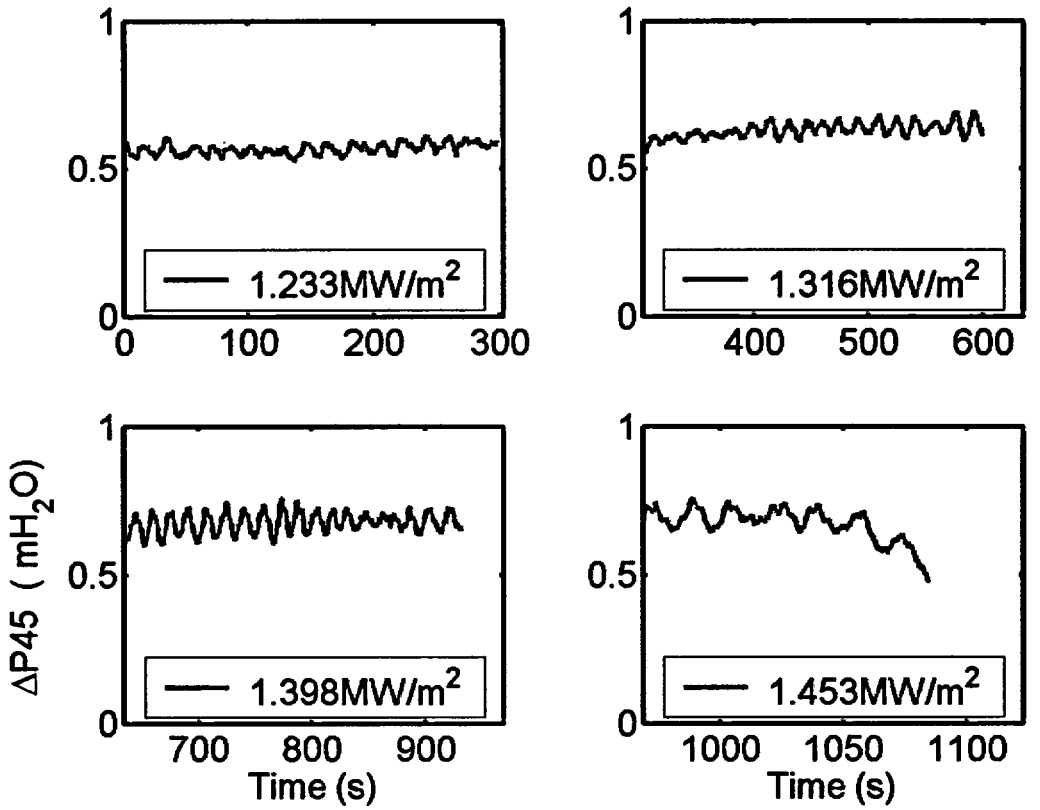

Figure A29.20. Differential Pressure ΔP45 at different heat fluxes.

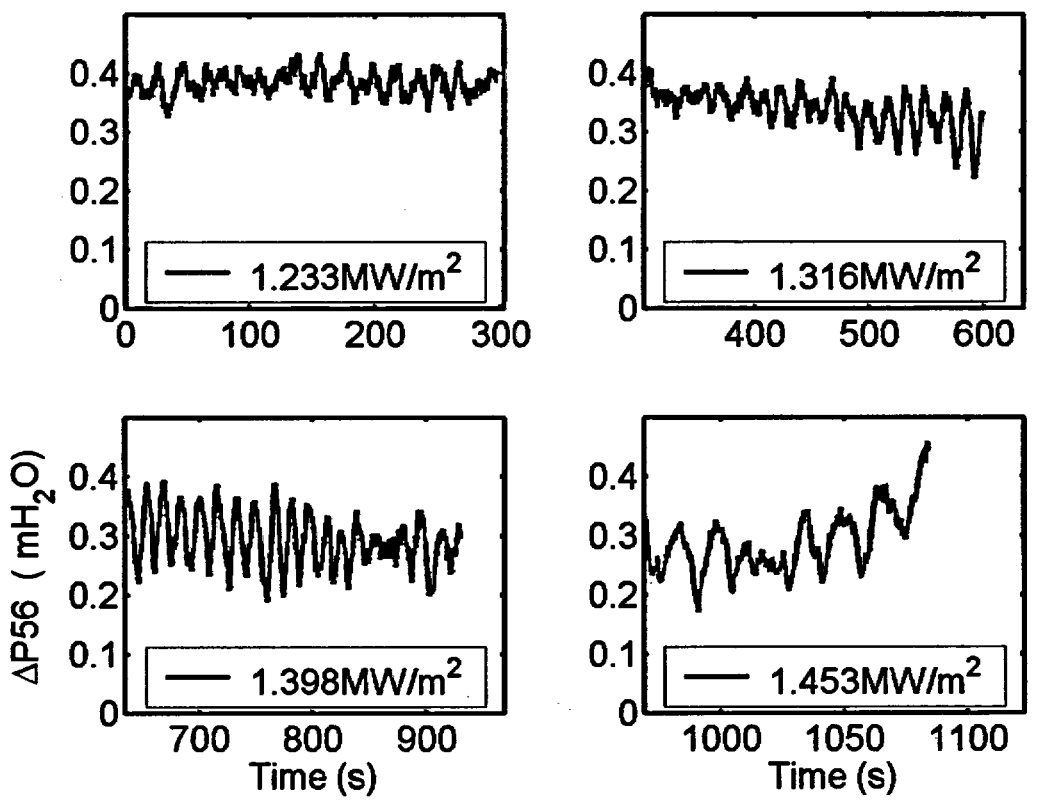

Figure A29.21 Differential Pressure ΔP56 at different heat fluxes.

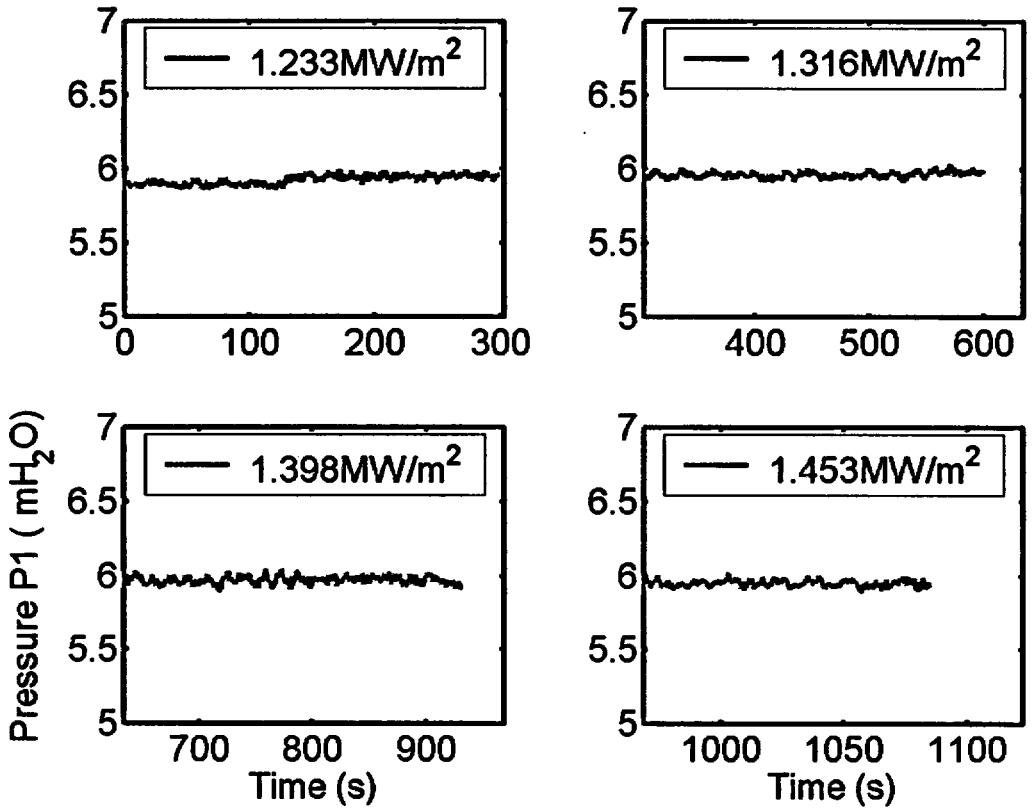

Figure A29.22 Pressure P1 at different heat fluxes.

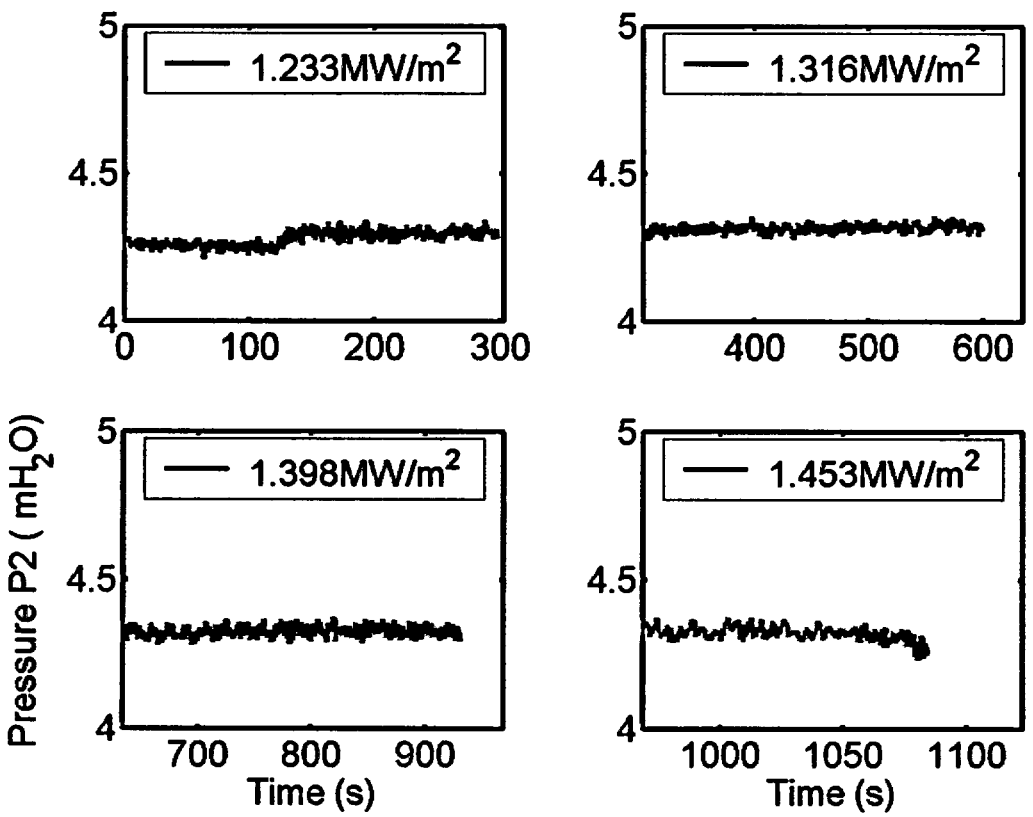

Figure A29.23 Pressure P2 at different heat fluxes.

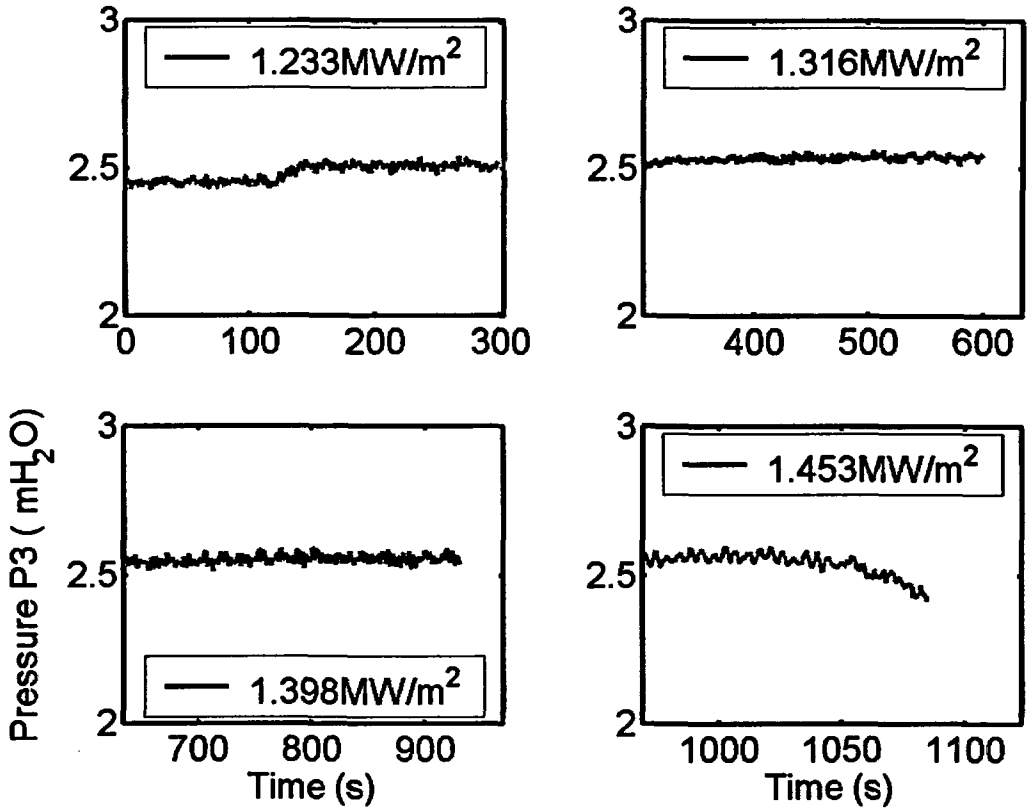

Figure A29.24 Pressure P3 at different heat fluxes.

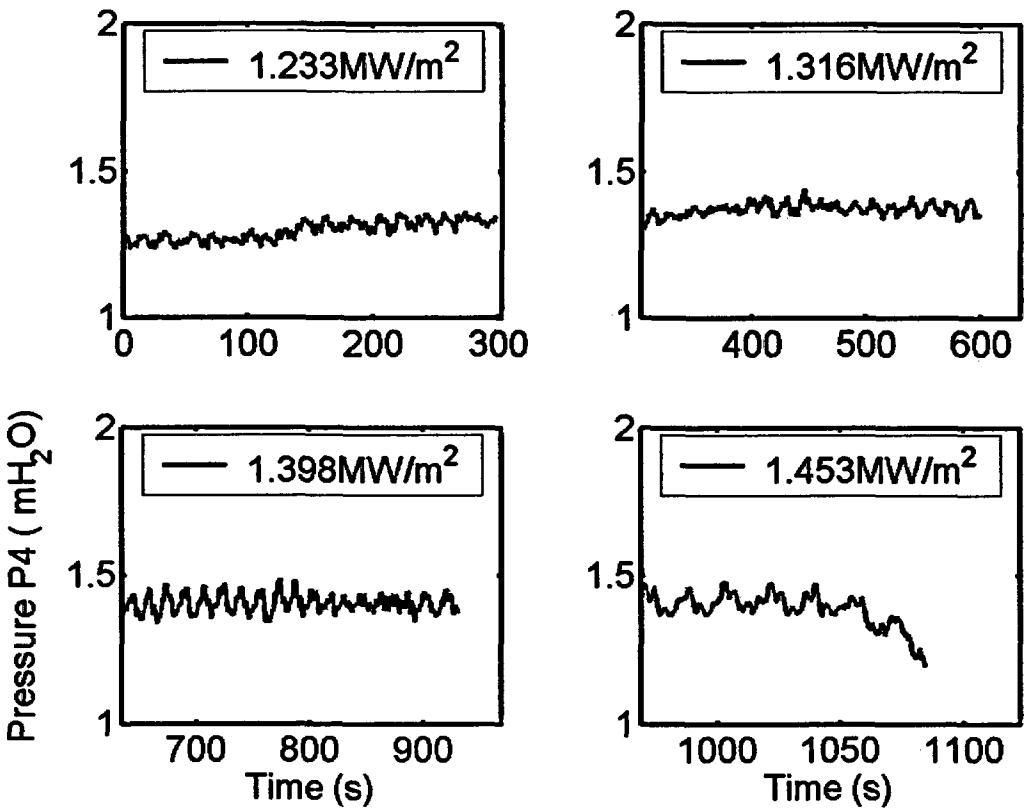

Figure 24.25 Pressure P4 at different heat fluxes.

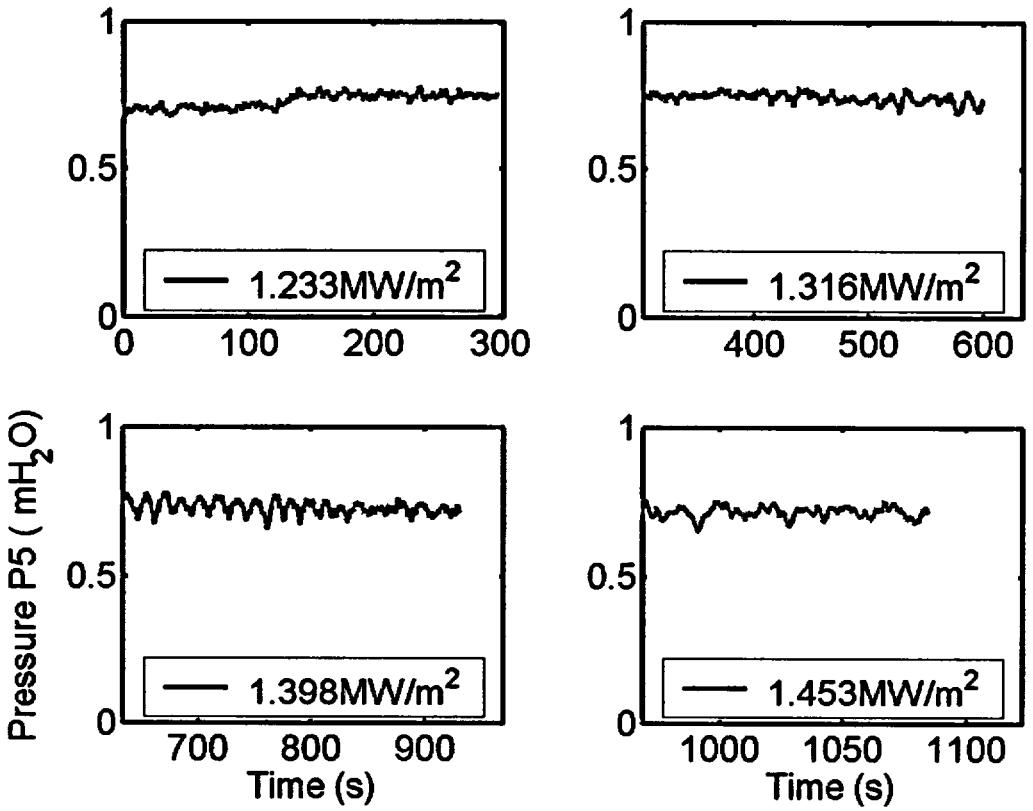

Figure A29.26 Pressure P5 at different heat fluxes.

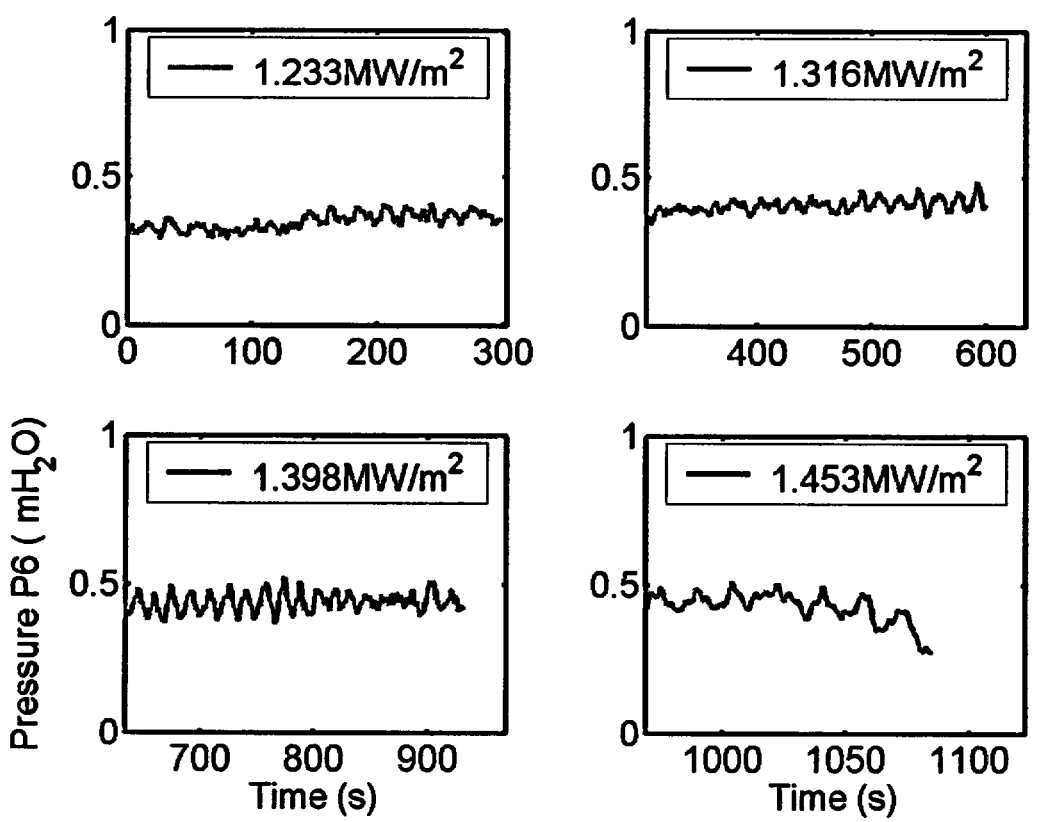

Figure A29.27 Pressure P6 at different heat fluxes.

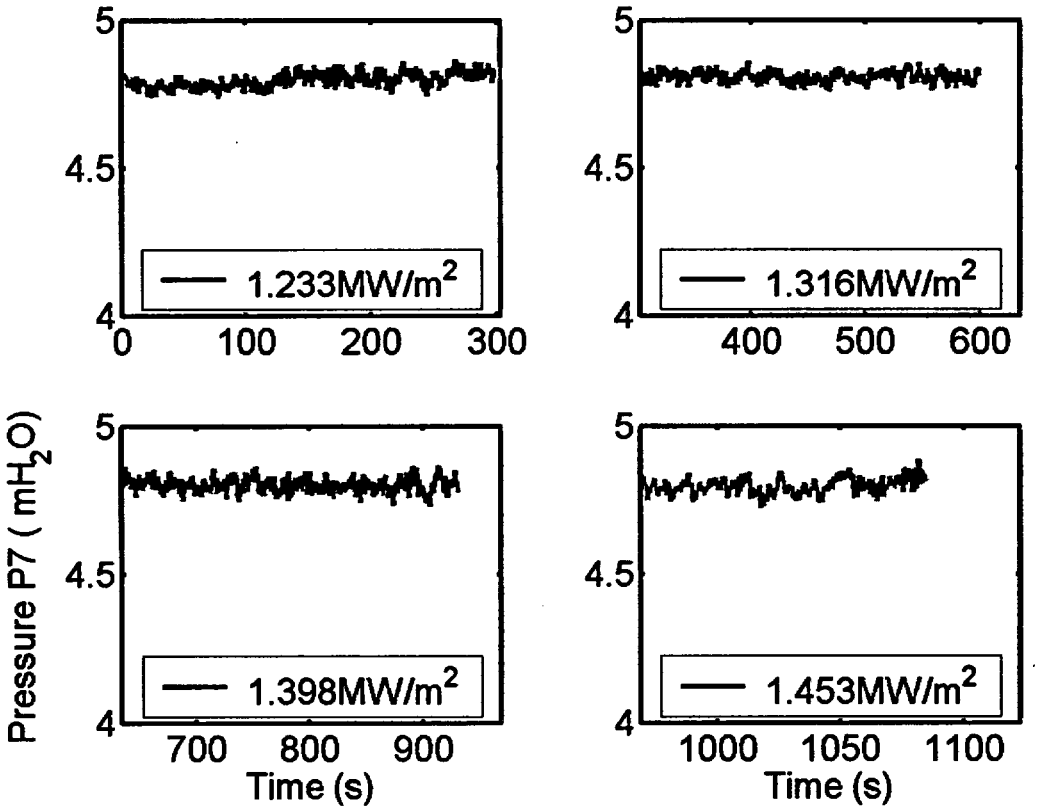

Figure A29.28 Pressure P7 at different heat fluxes.

ID #30

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T48A	1507	LC8	83	C	01/03/2003/15:00

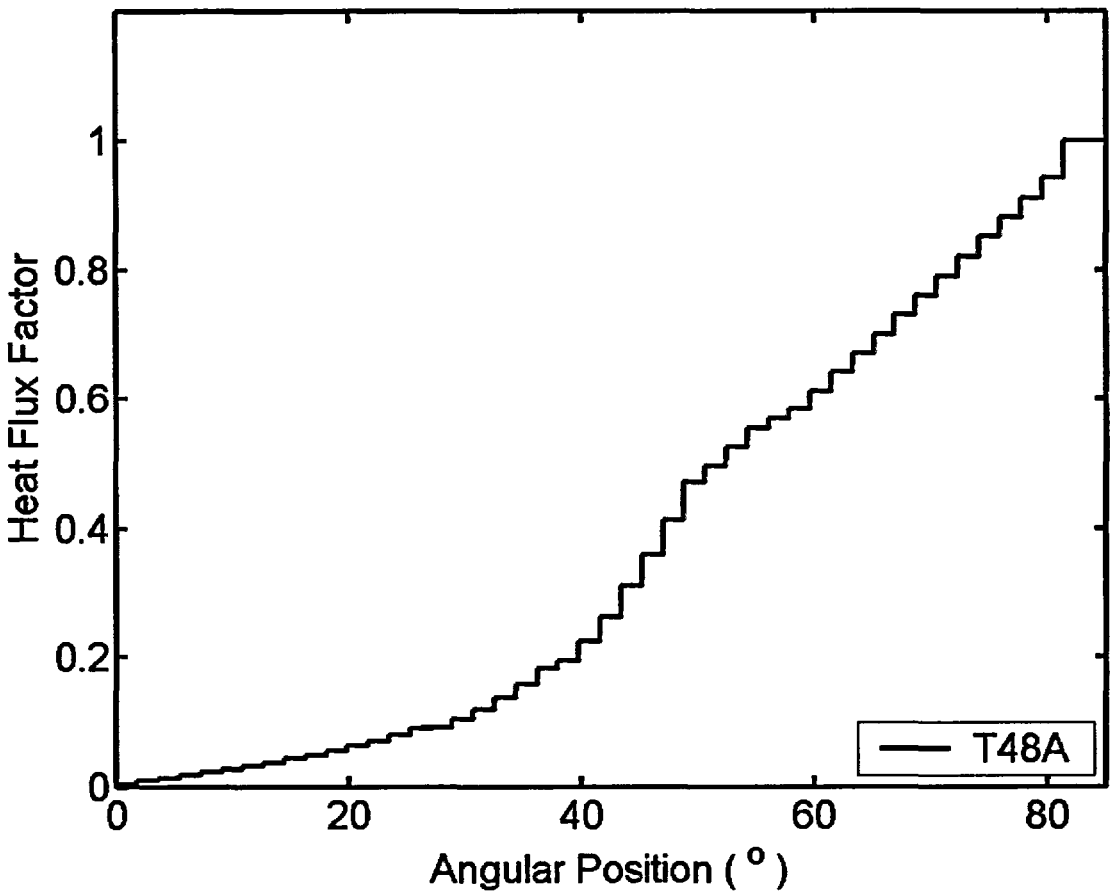

Figure A30.1. Power shape.

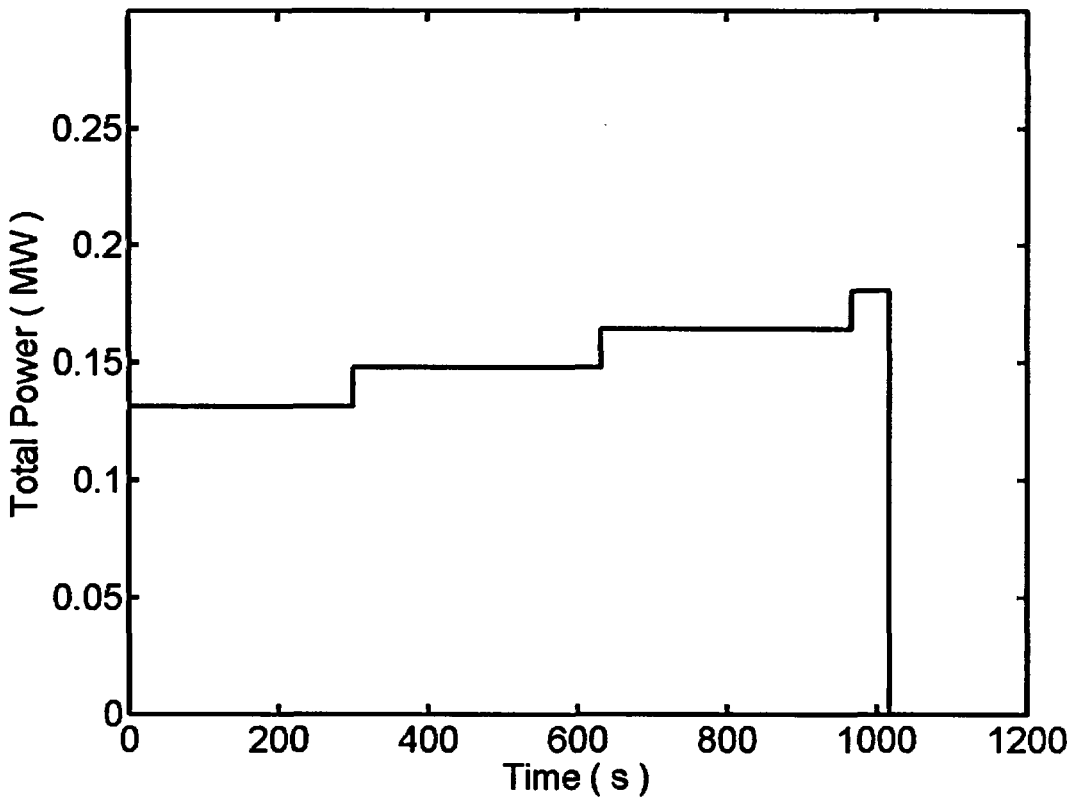

Figure A30.2. Total input power history.

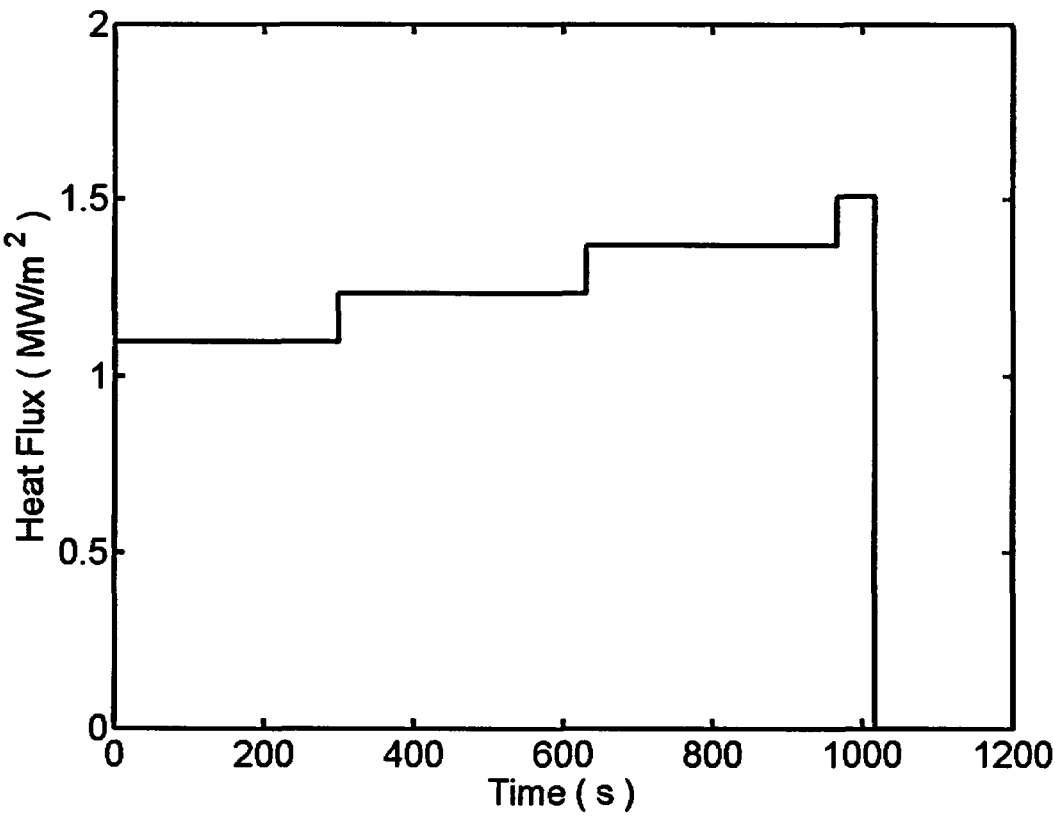

Figure A30.3. Heat flux history.

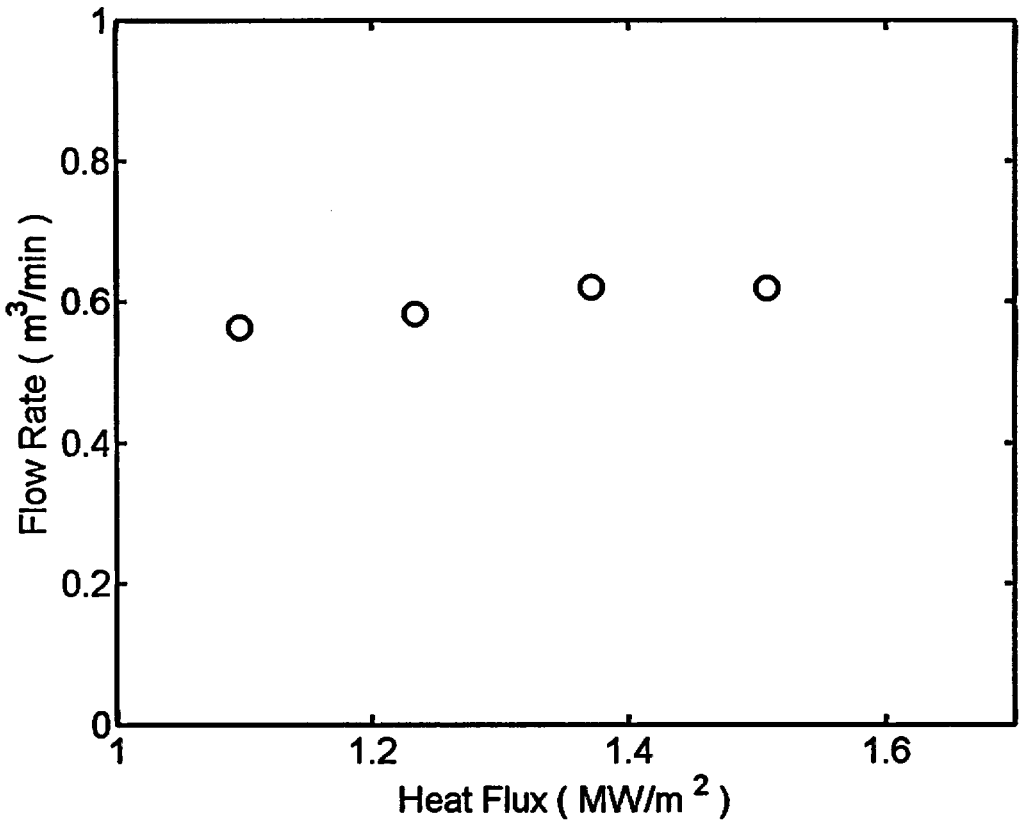

Figure A30.4. Flow rate vs. heat fluxes.

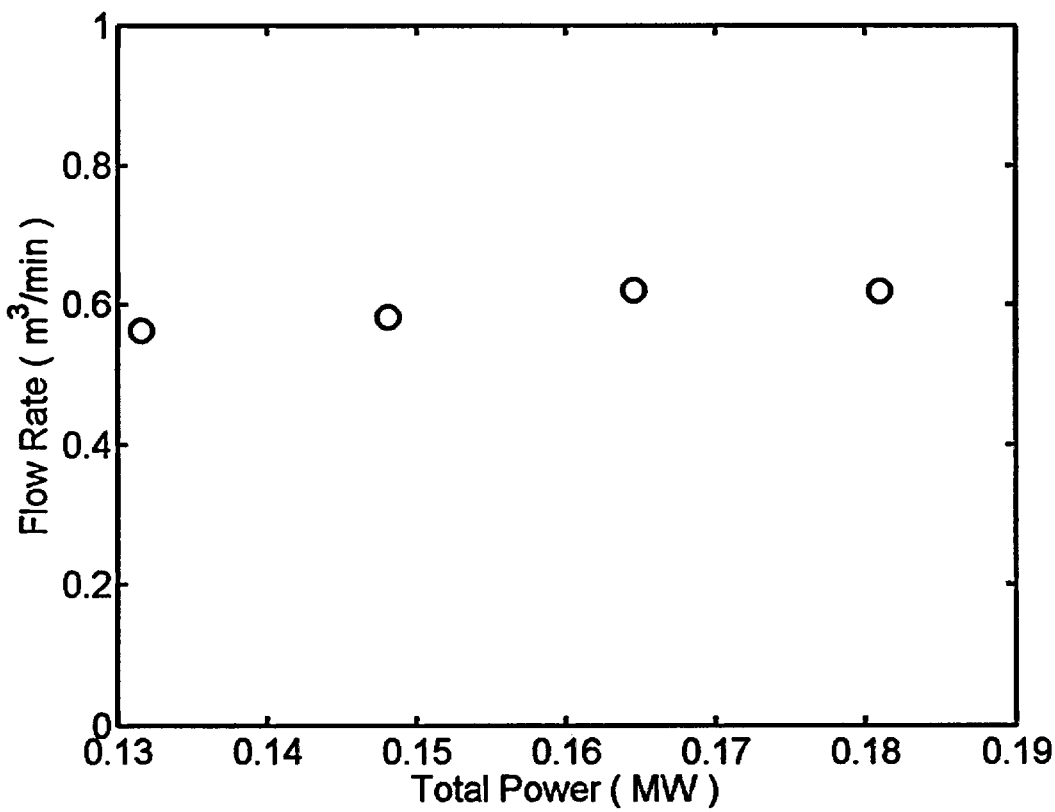

Figure A30.5. Flow rate vs. total input power.

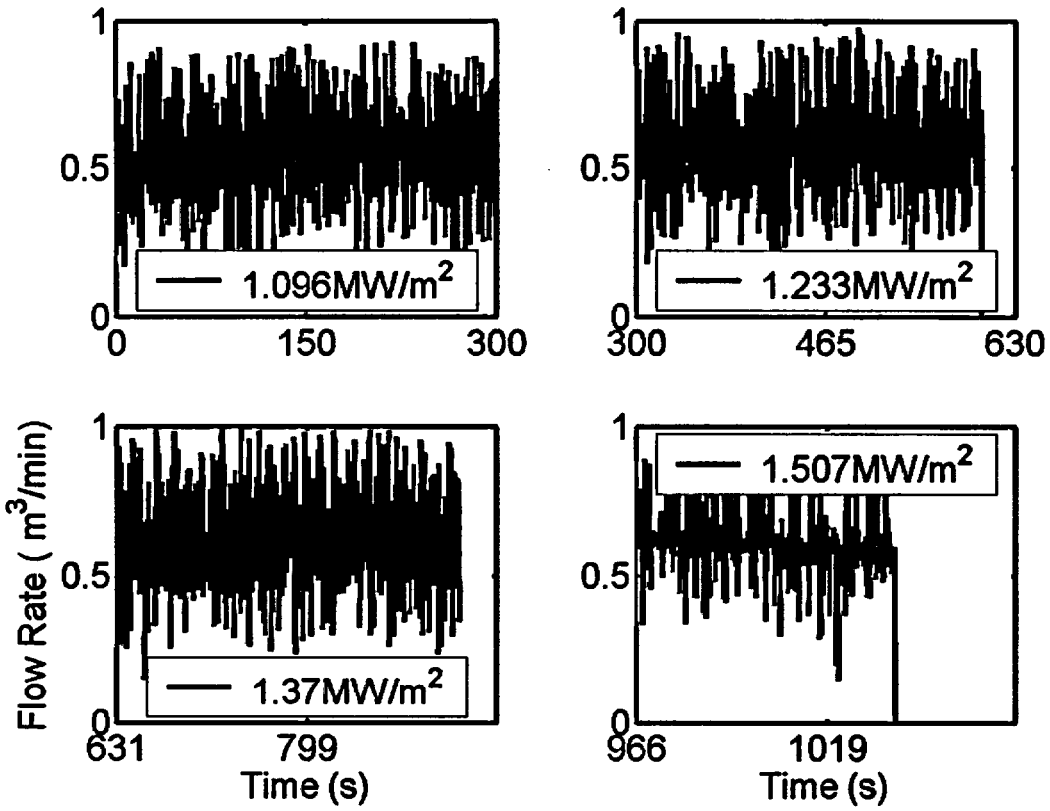

Figure A30.6. Flow rates at different heat fluxes.

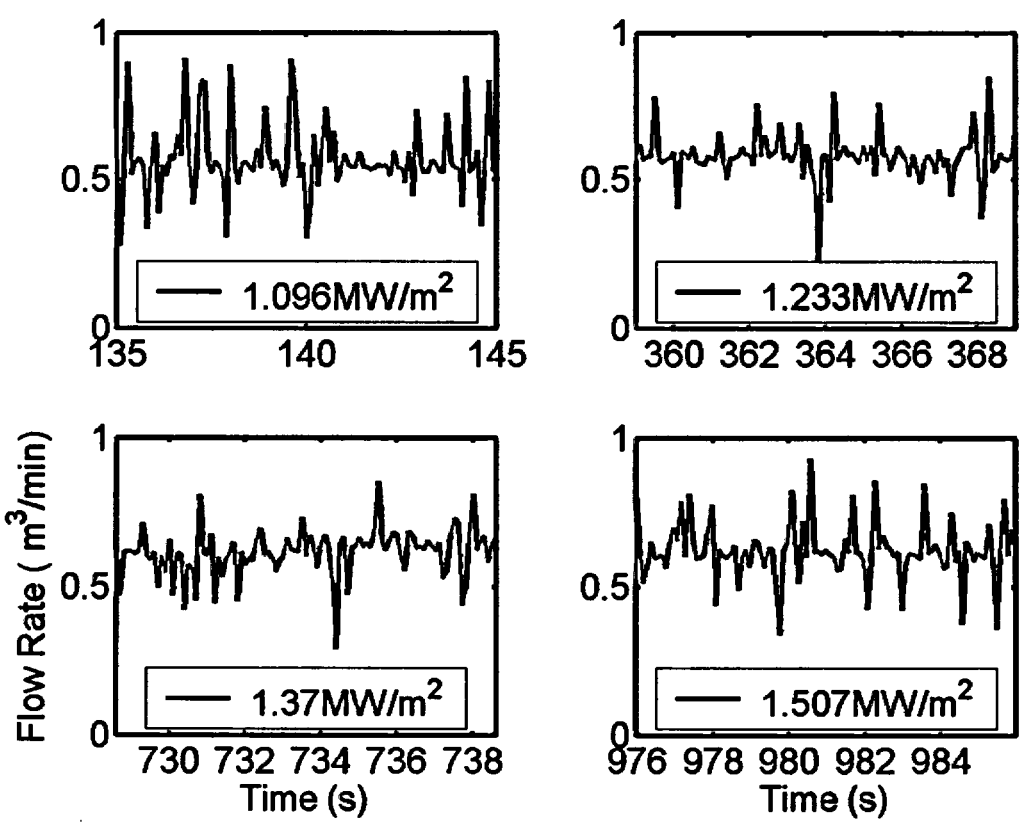

Figure A30.7. Flow rates at different heat fluxes at selected time intervals.

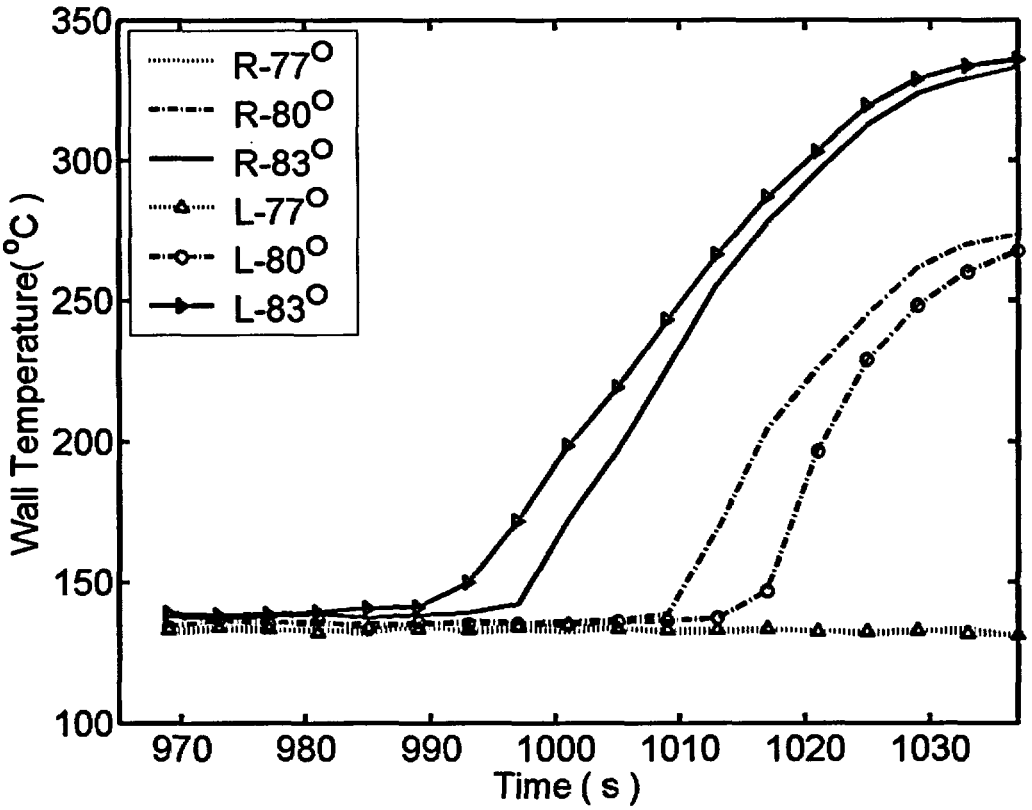

Figure A30.8. Temperature history at CHF.

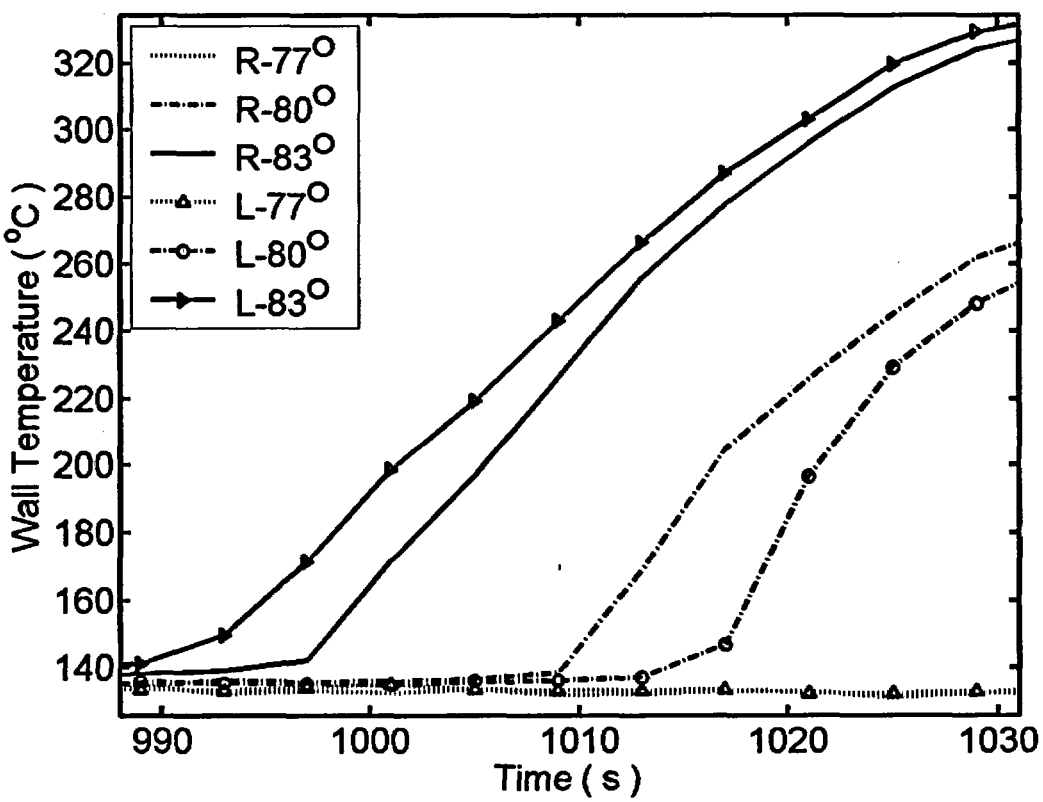

Figure A30.9. Temperature history at CHF in detail.

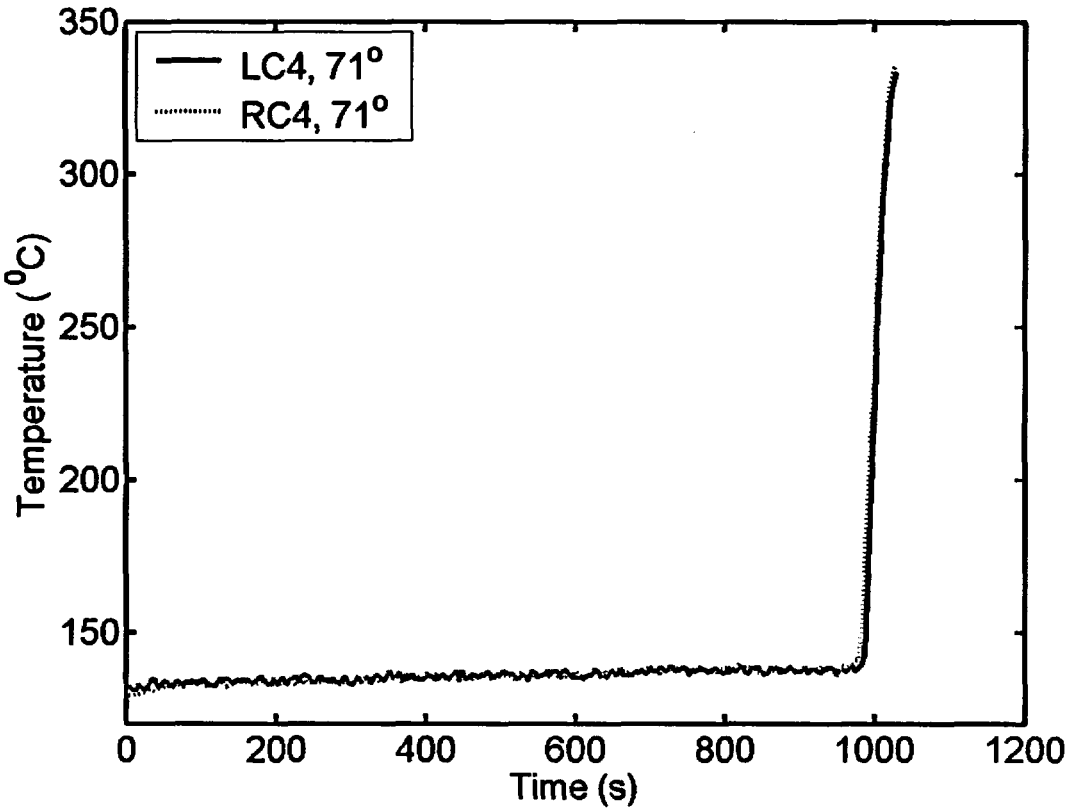

Figure A30.10 Wall temperature history measured by two thermocouples LC8 and RC8.

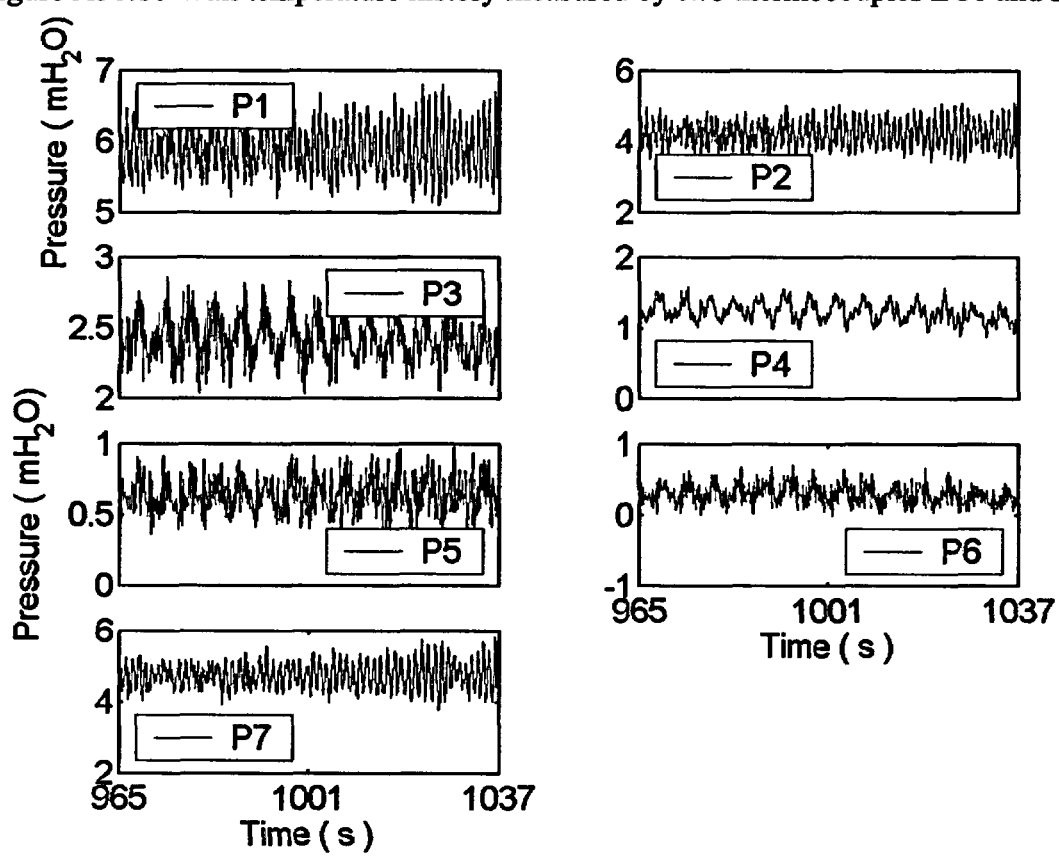

Figure A30.11. Pressure transducer data at q = 1.507 MW/m^2.

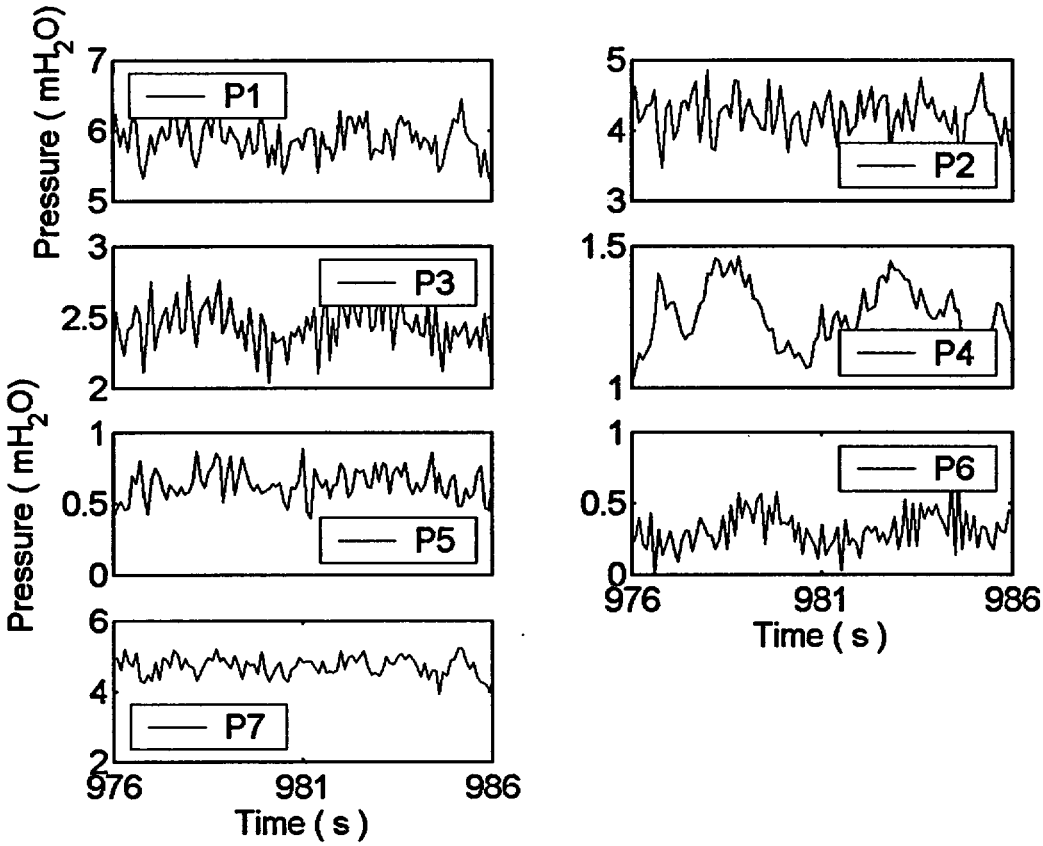

Figure A30.12. Pressure data in detail at q = 1.507 MW/m^2.

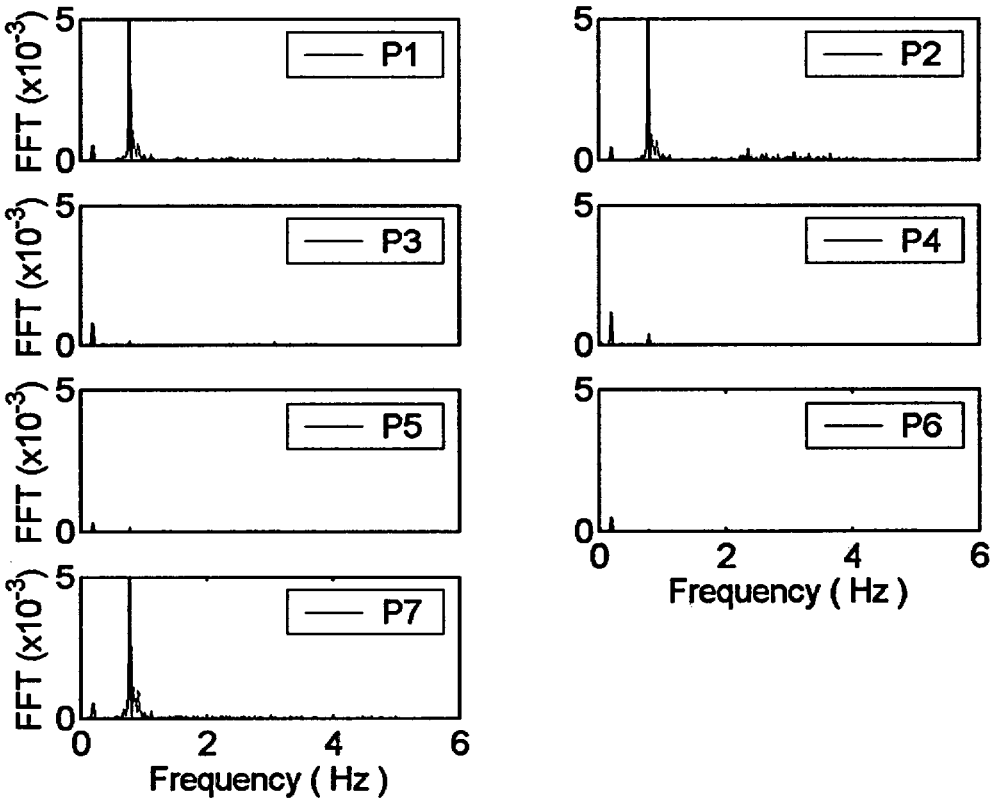

Figure A30.13. FFT of pressure time series at q = 1.507 MW/m^2.

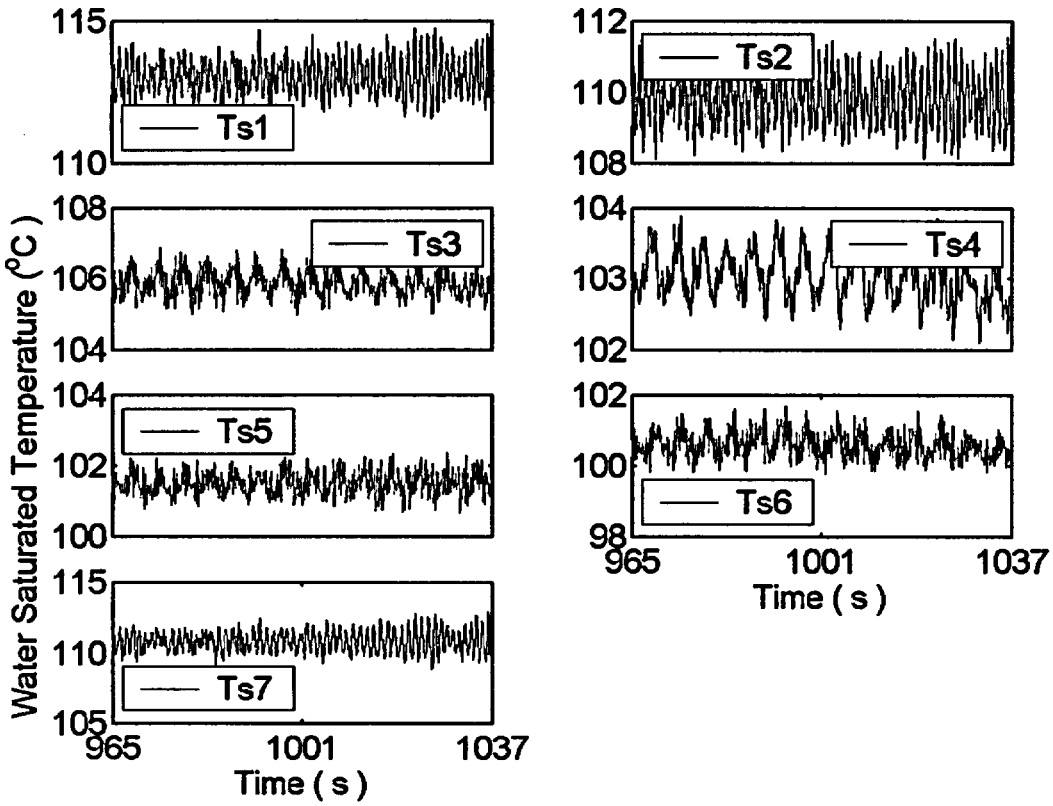

Figure A30.14. Water saturation temperature calculated from local pressure data at q = 1.507 MW/m^2.

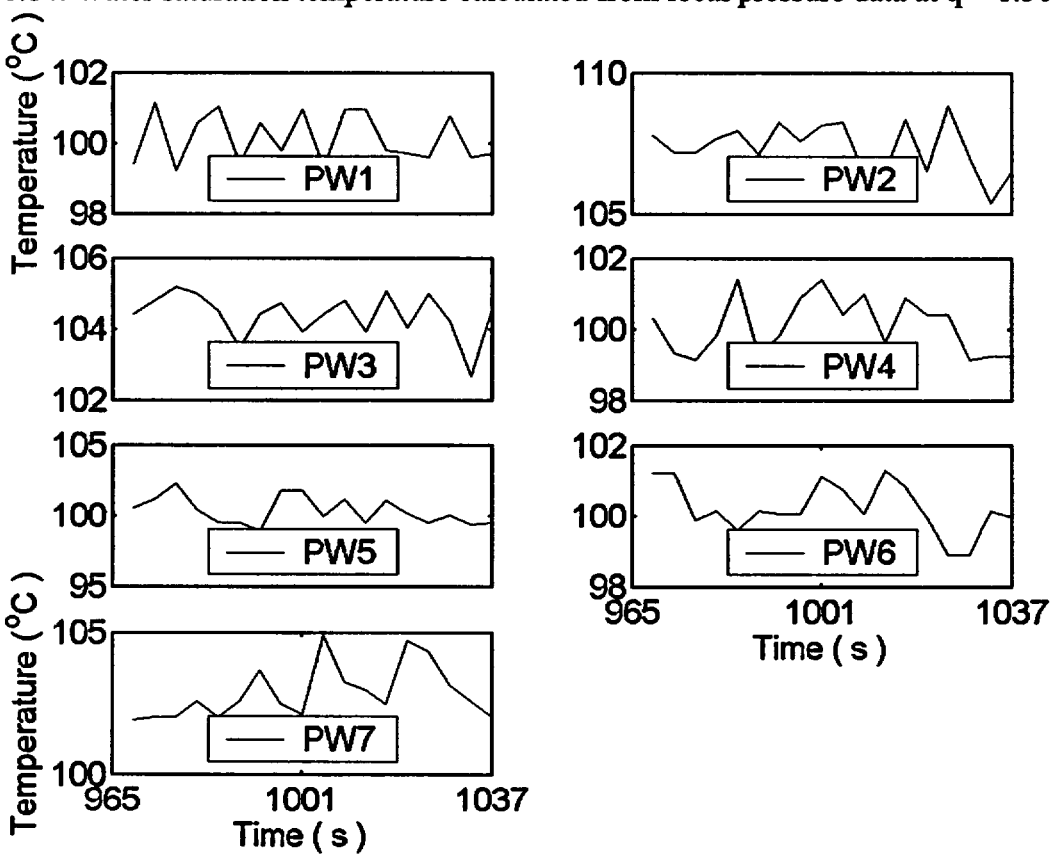

Figure A30.15. Water temperature measured at location of pressure transducer at q = 1.507 MW/m^2.

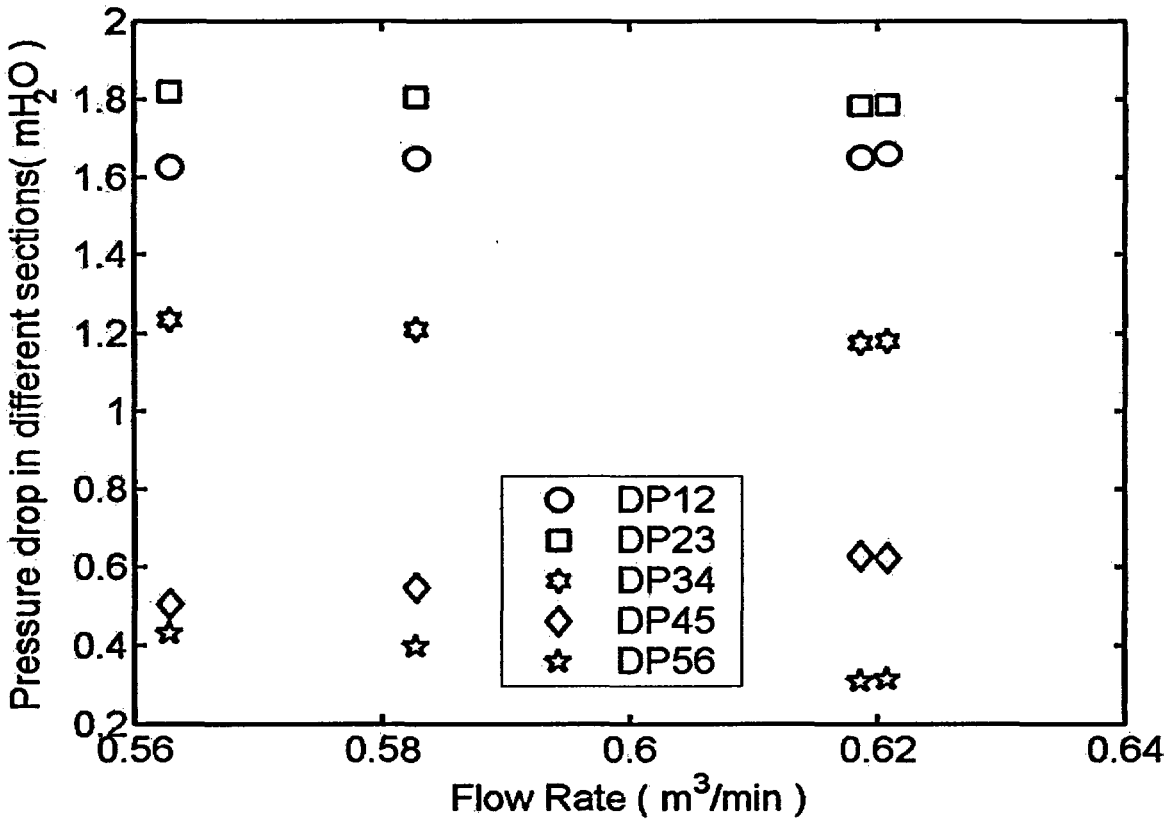

Figure A30.16 Pressure drop vs. flow rate at different heat fluxes.

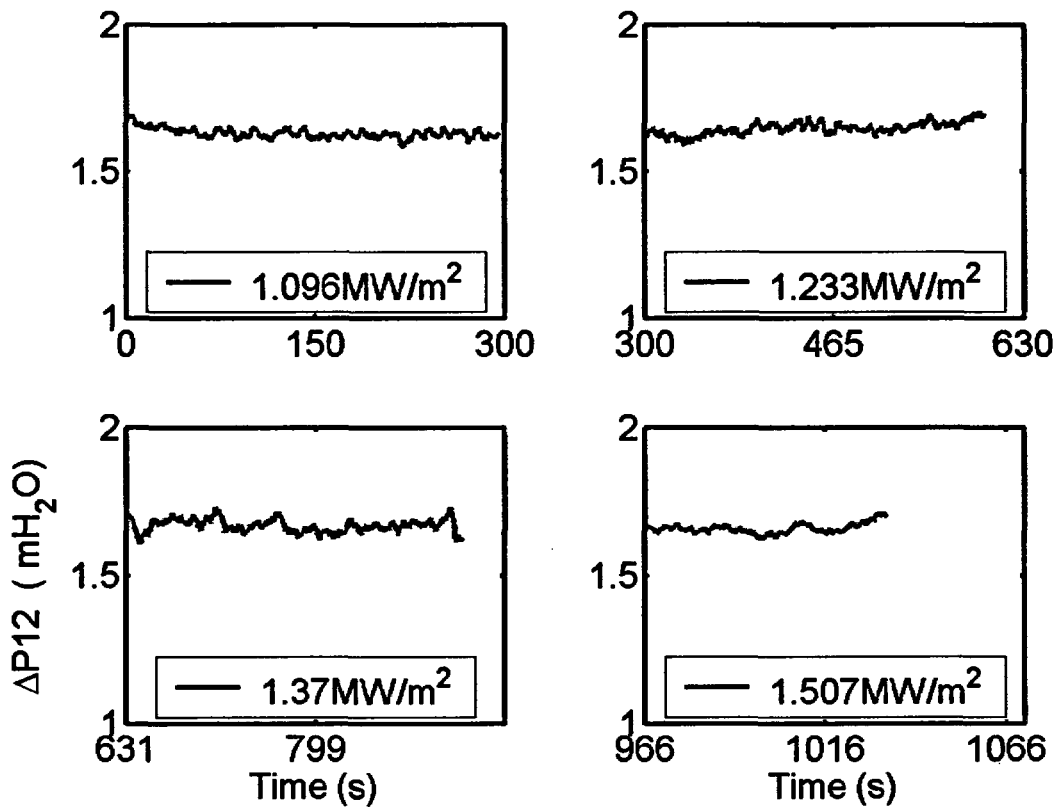

Figure A30.17. Differential Pressure ΔP12 at different heat fluxes.

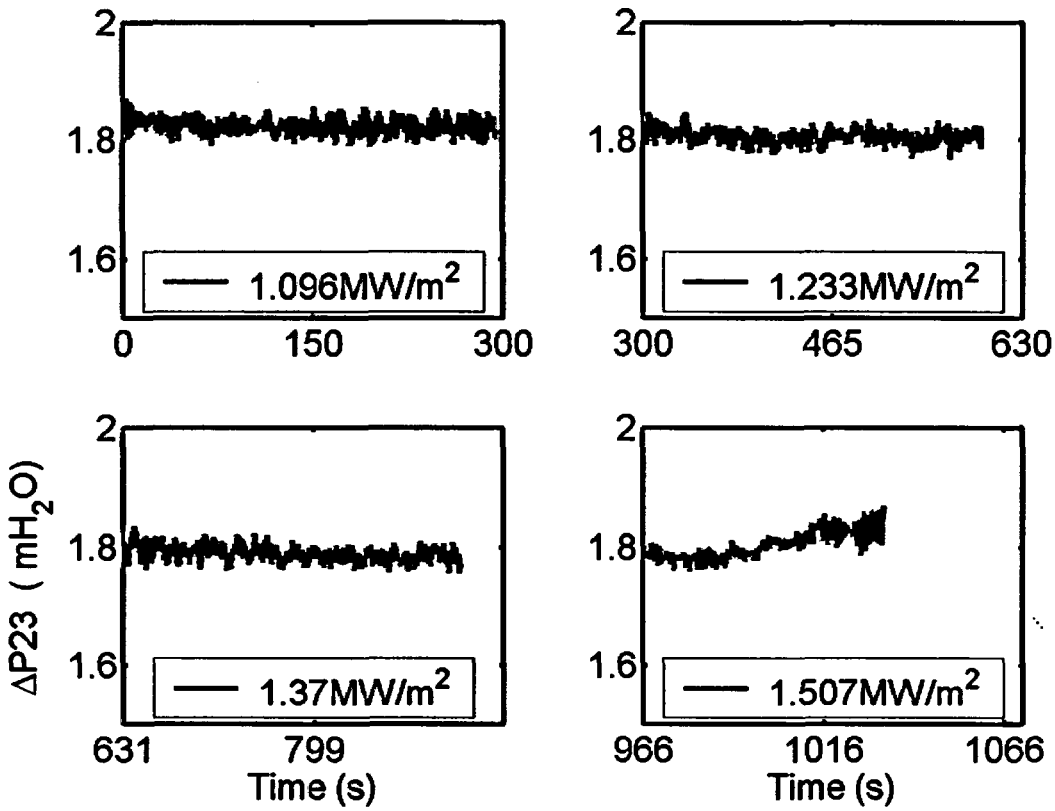

Figure A30.18. Differential Pressure ΔP23 at different heat fluxes.

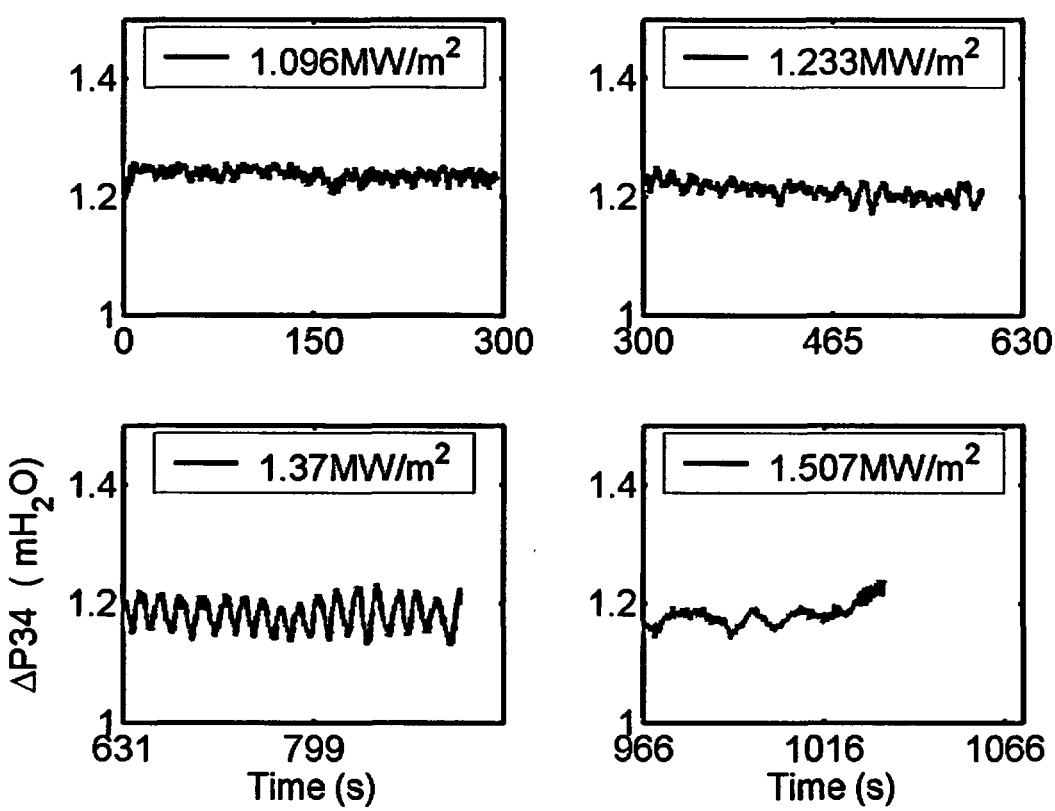

Figure A30.19. Differential Pressure ΔP34 at different heat fluxes.

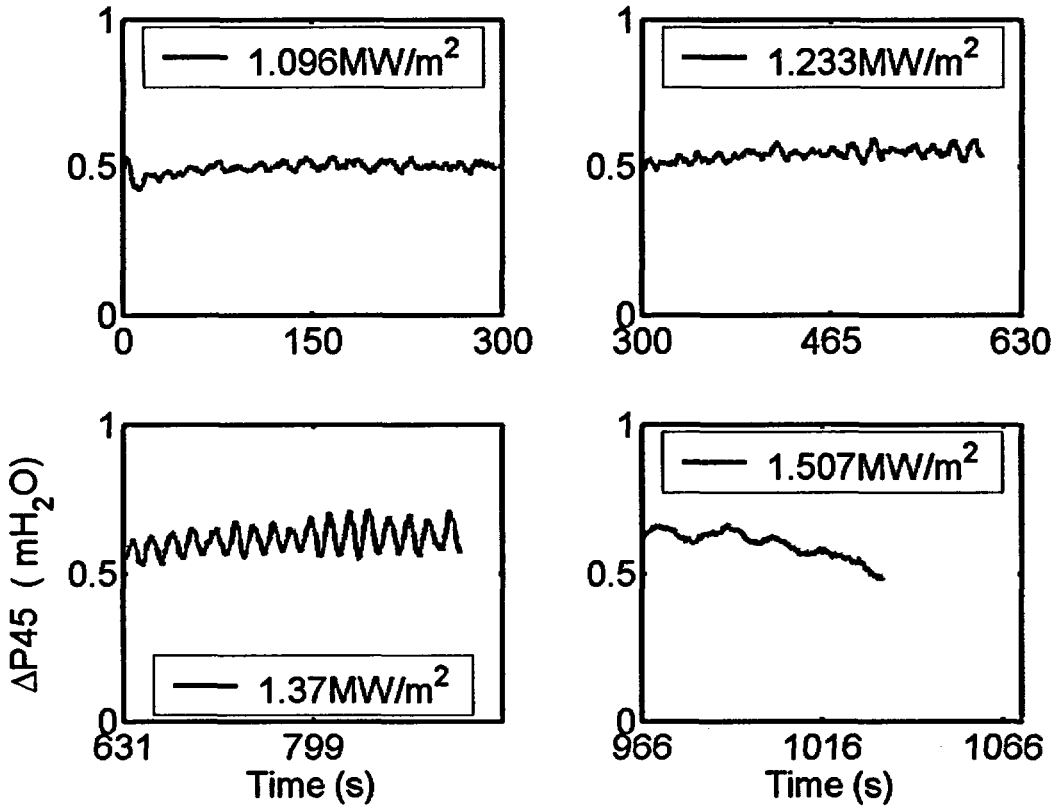

Figure A30.20. Differential Pressure ΔP45 at different heat fluxes.

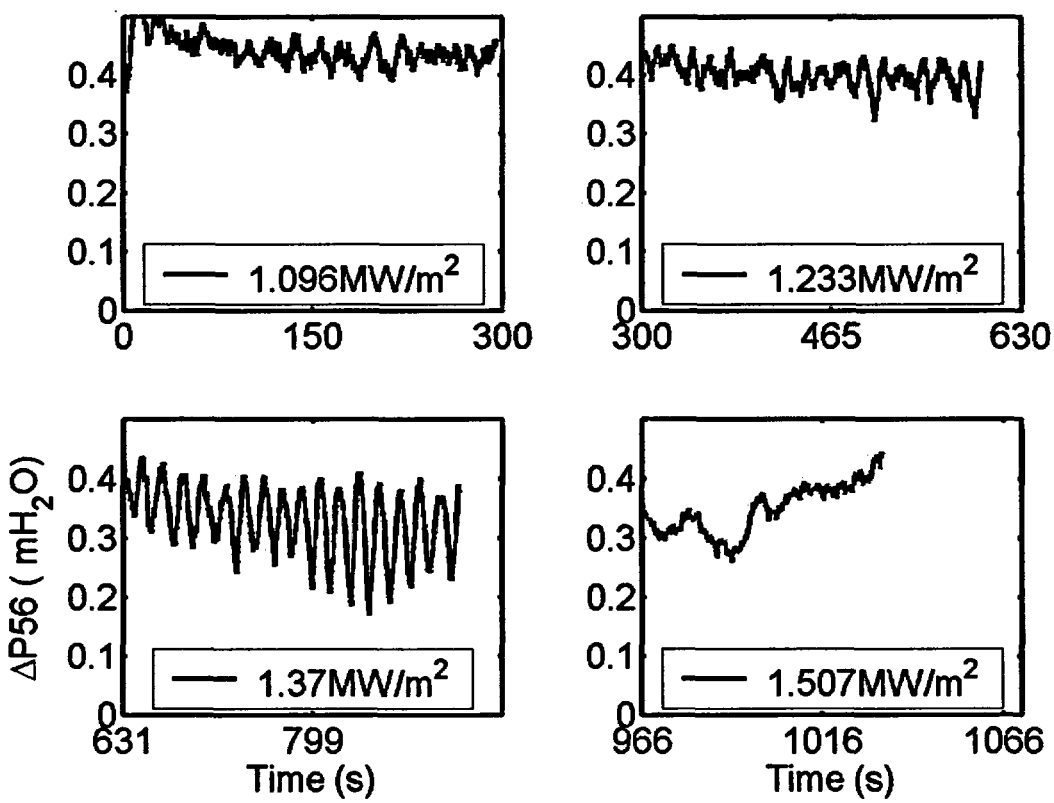

Figure A30.21 Differential Pressure ΔP56 at different heat fluxes.

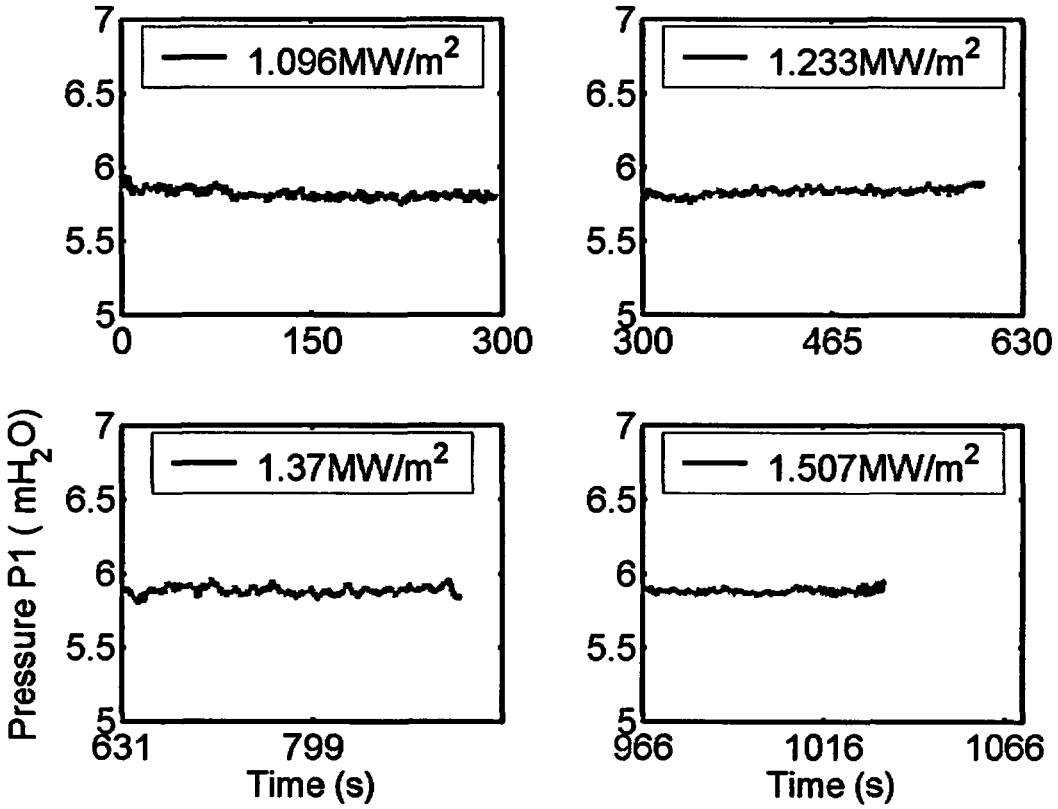

Figure A30.22 Pressure P1 at different heat fluxes.

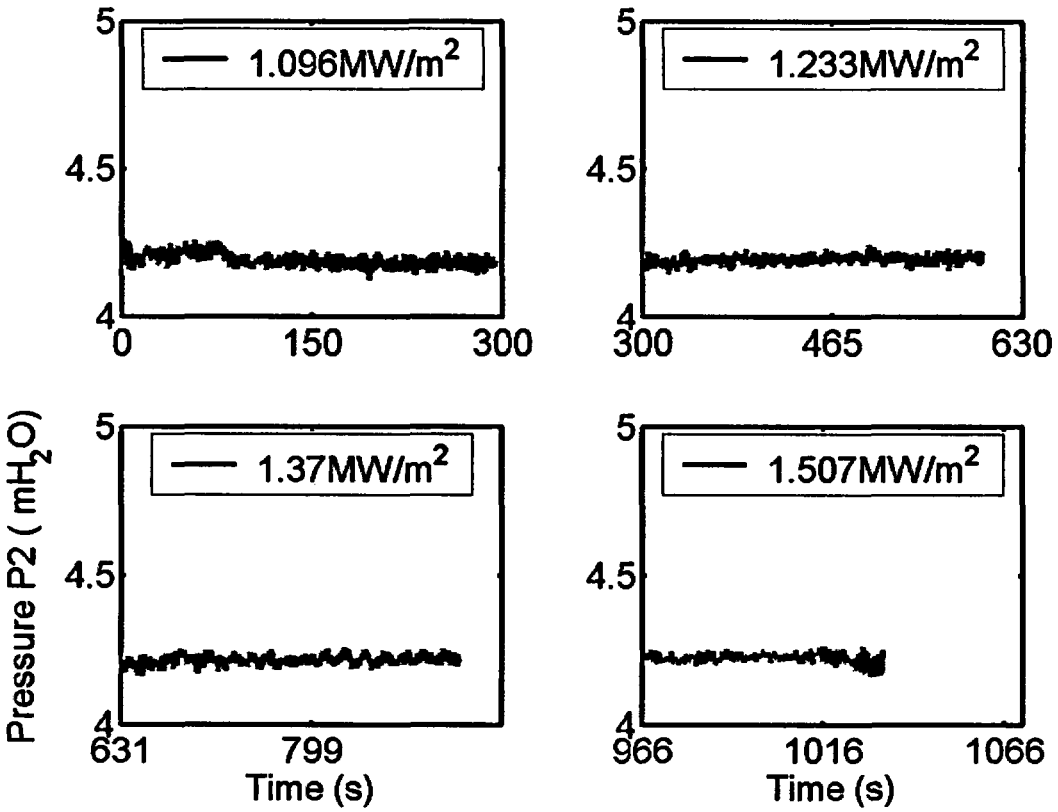

Figure A30.23 Pressure P2 at different heat fluxes.

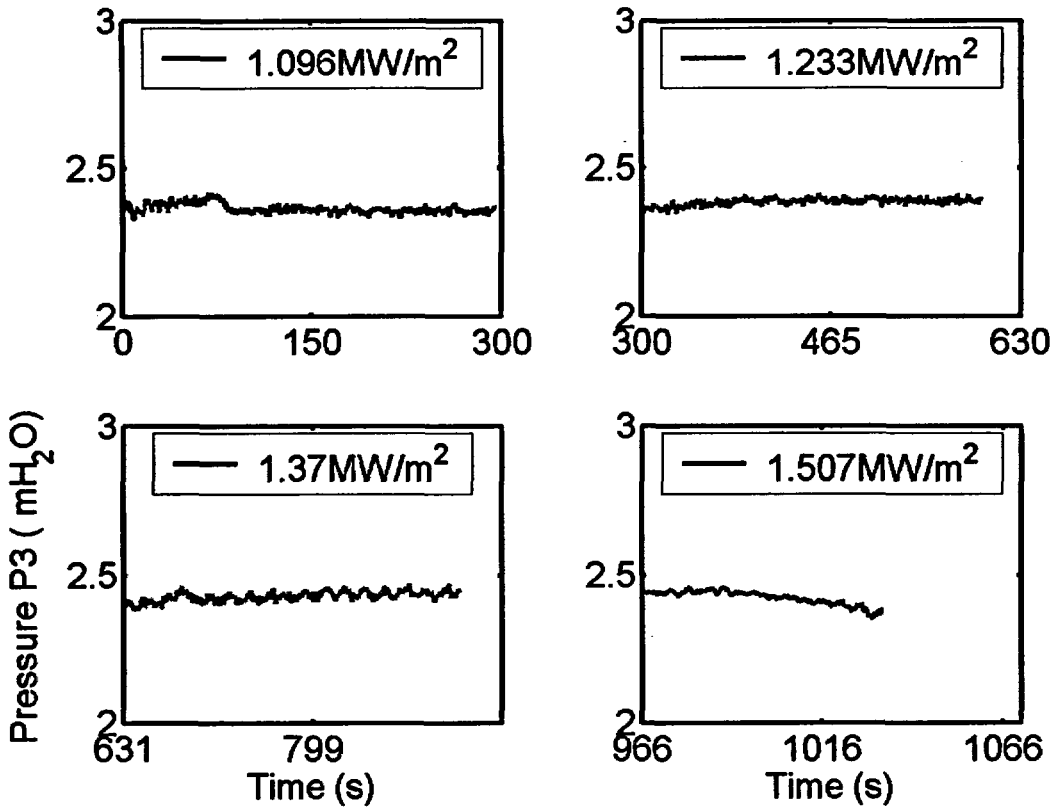

Figure A30.24 Pressure P3 at different heat fluxes.

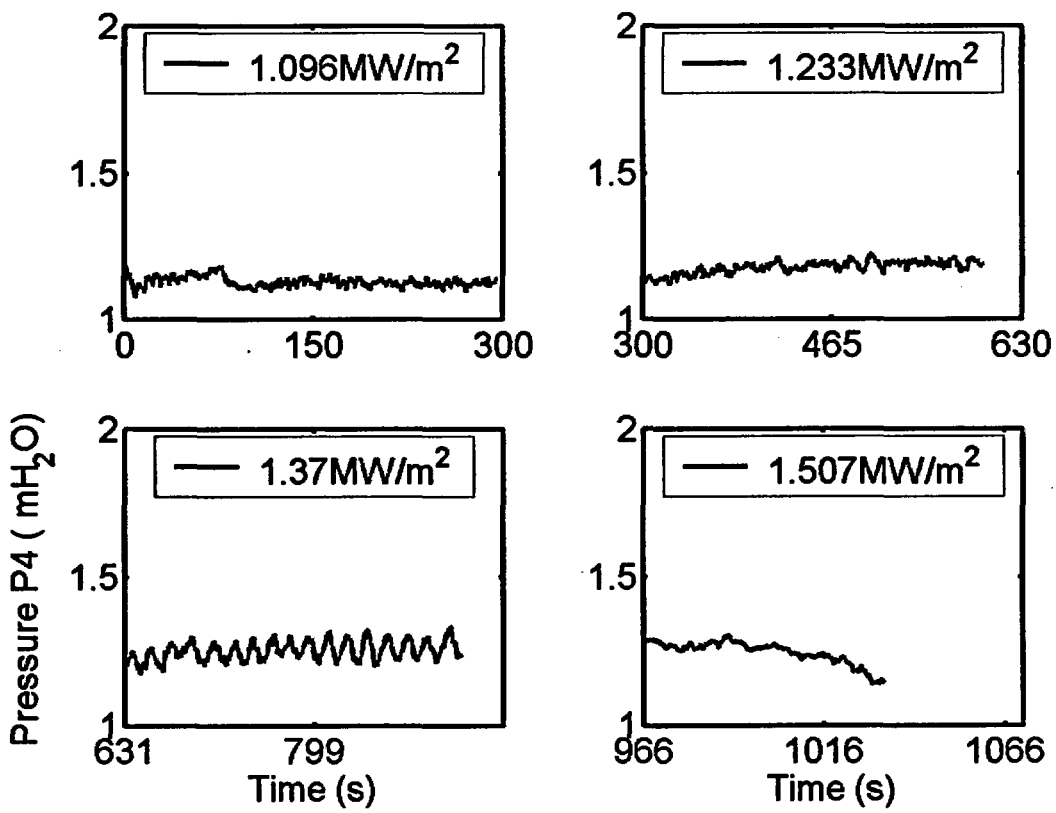

Figure A30.25 Pressure P4 at different heat fluxes.

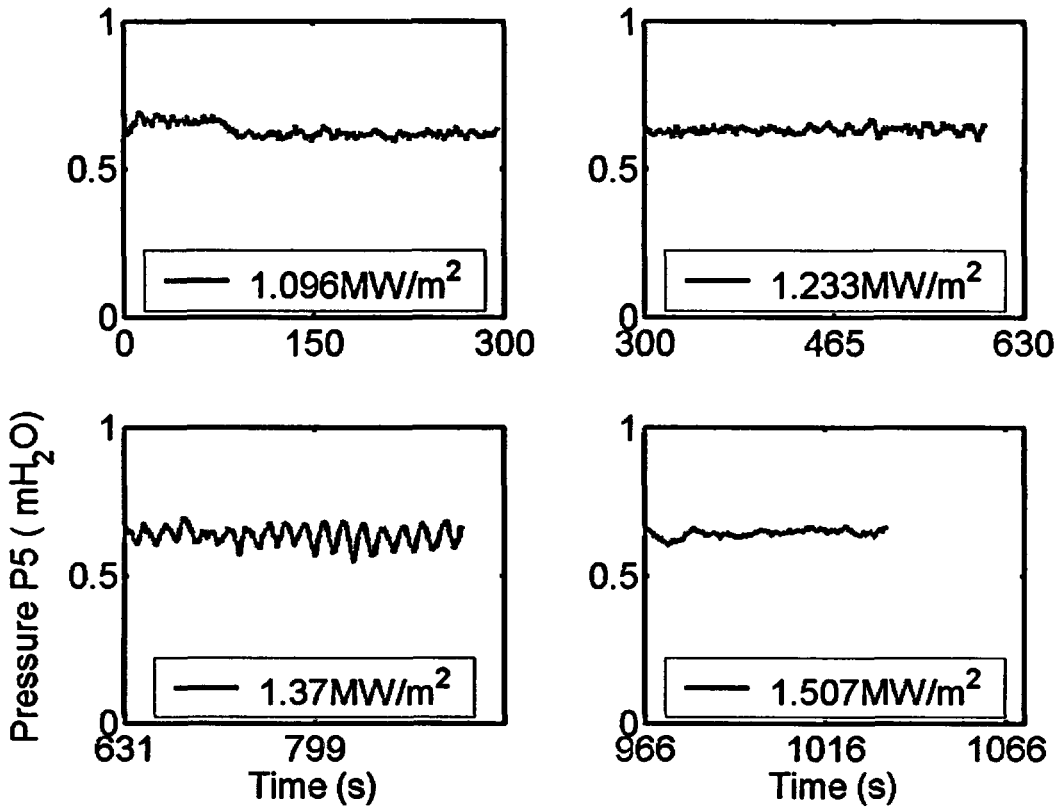

Figure A30.26 Pressure P5 at different heat fluxes.

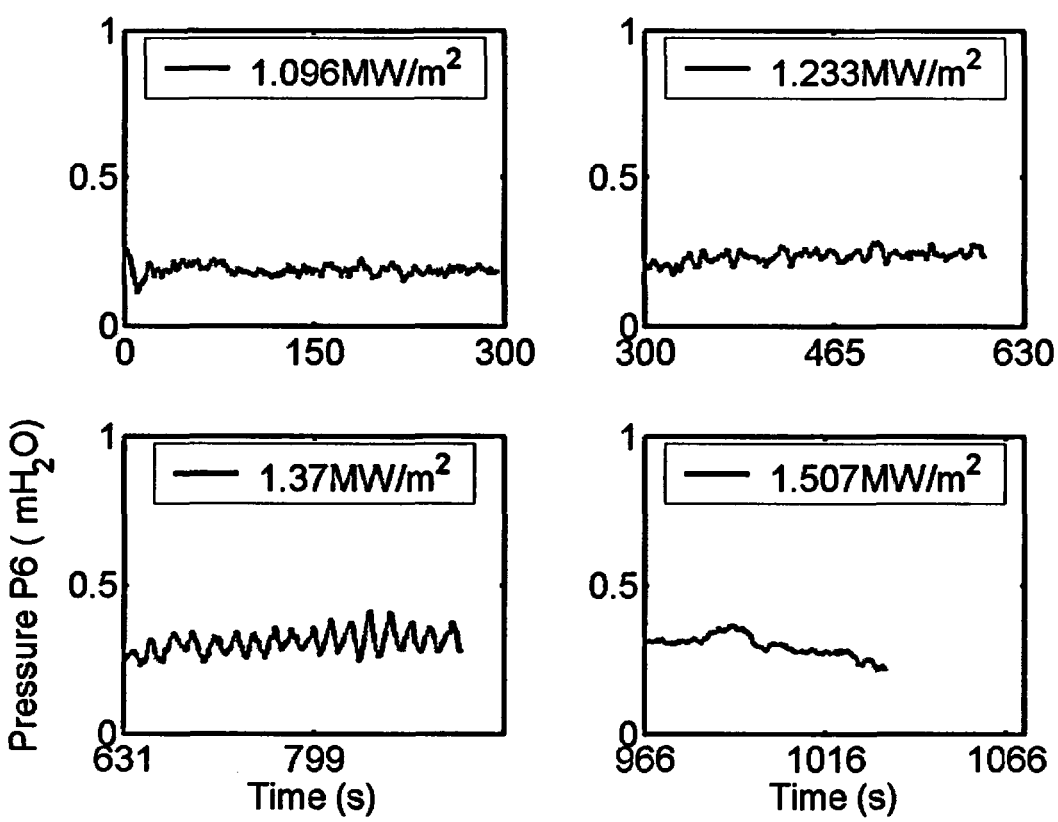

Figure A30.27 Pressure P6 at different heat fluxes.

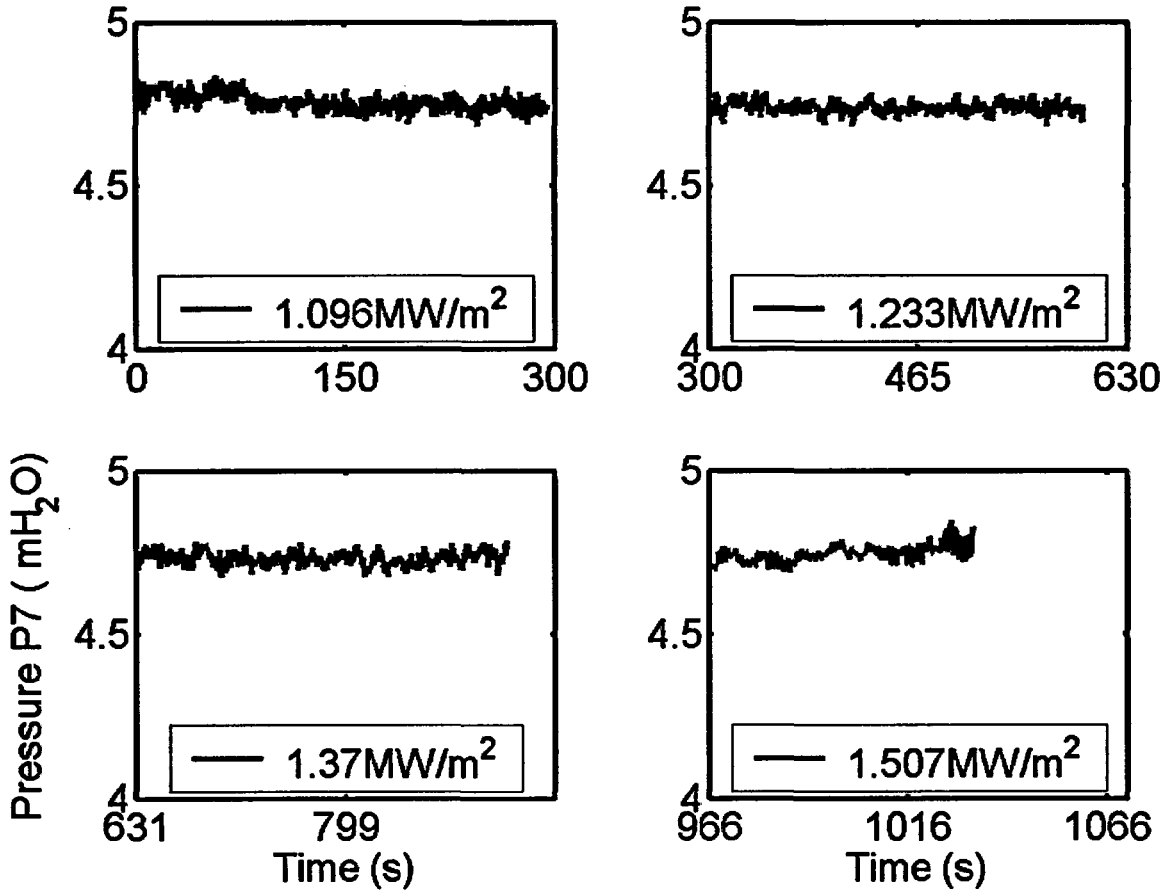

Figure A30.28 Pressure P7 at different heat fluxes.

ID #31

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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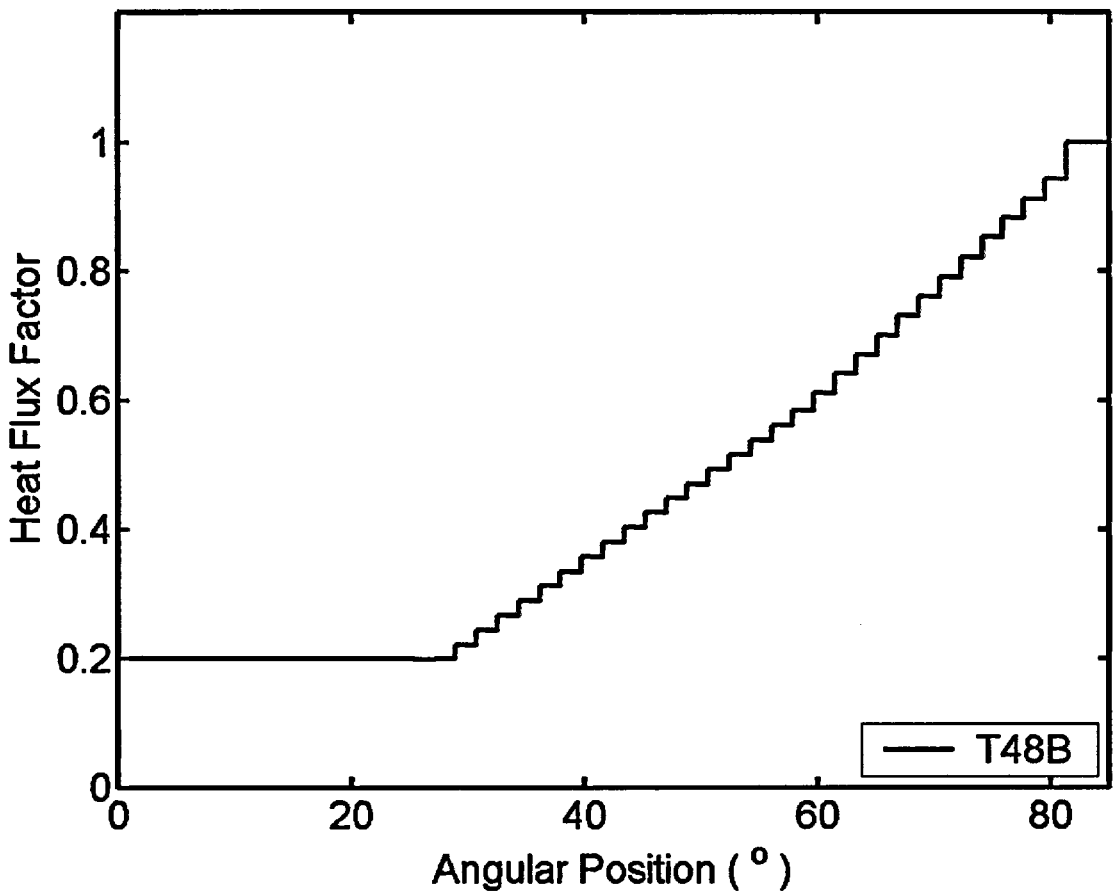

Figure A31.1. Power shape.

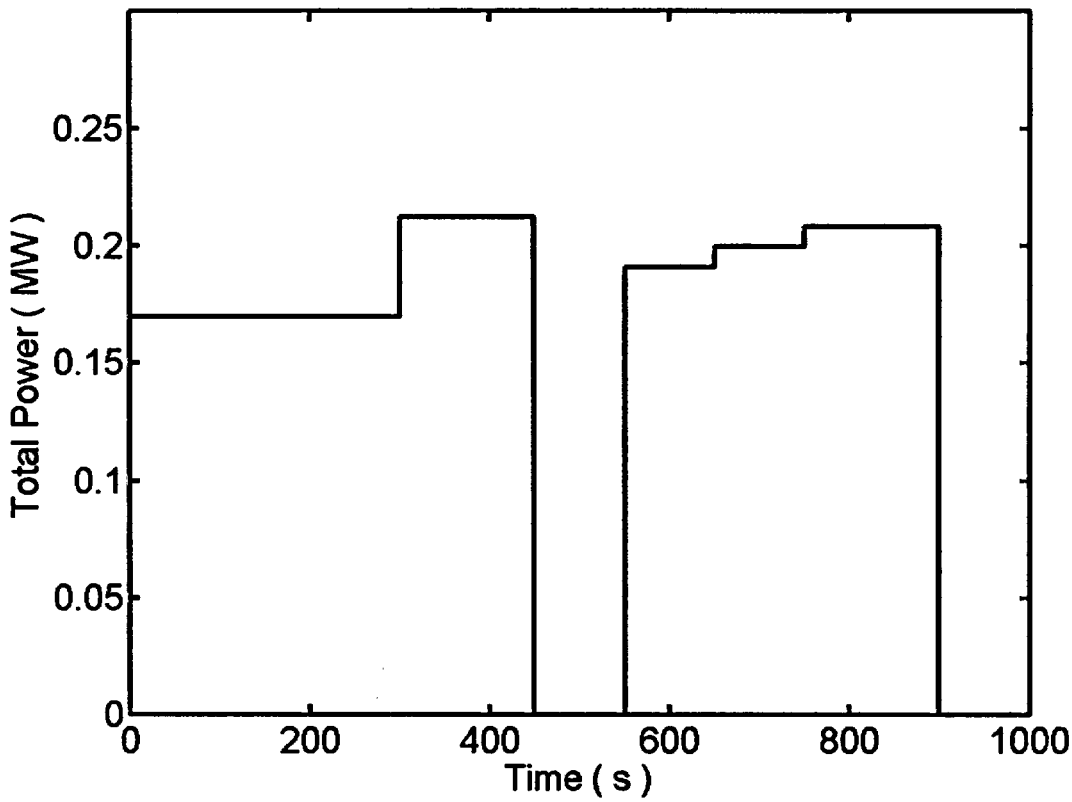

Figure A31.2. Total input power history.

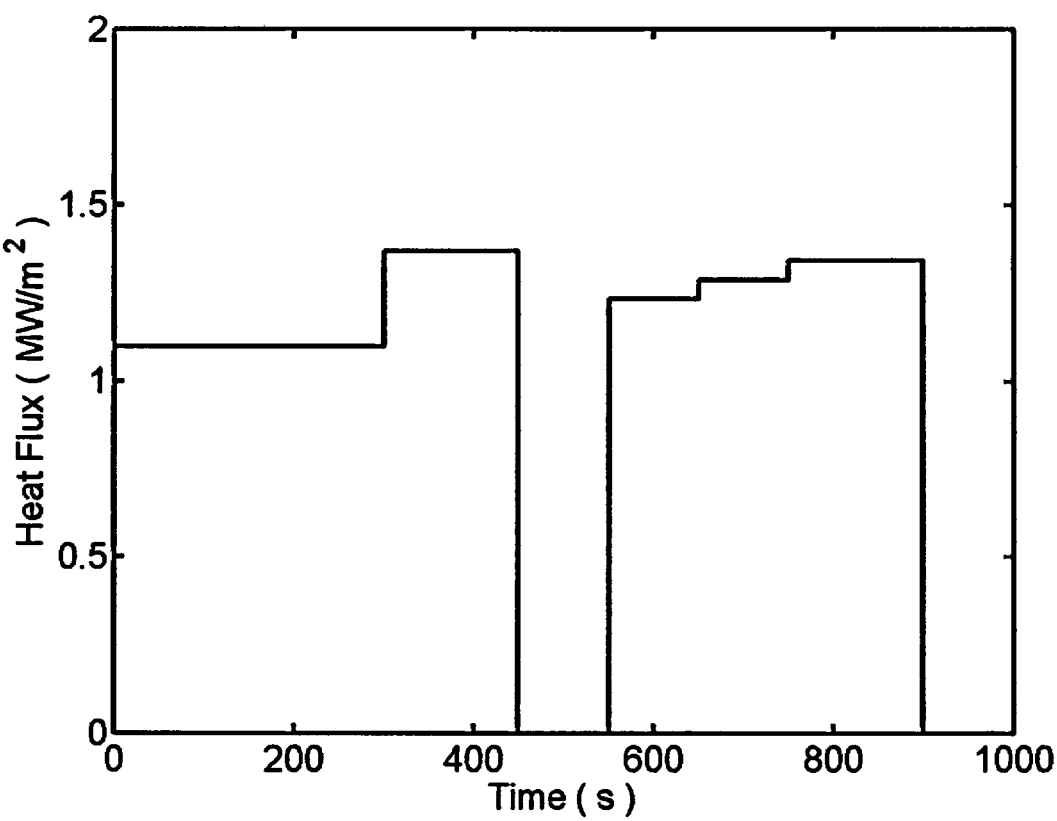

Figure A31.3. Heat flux history.

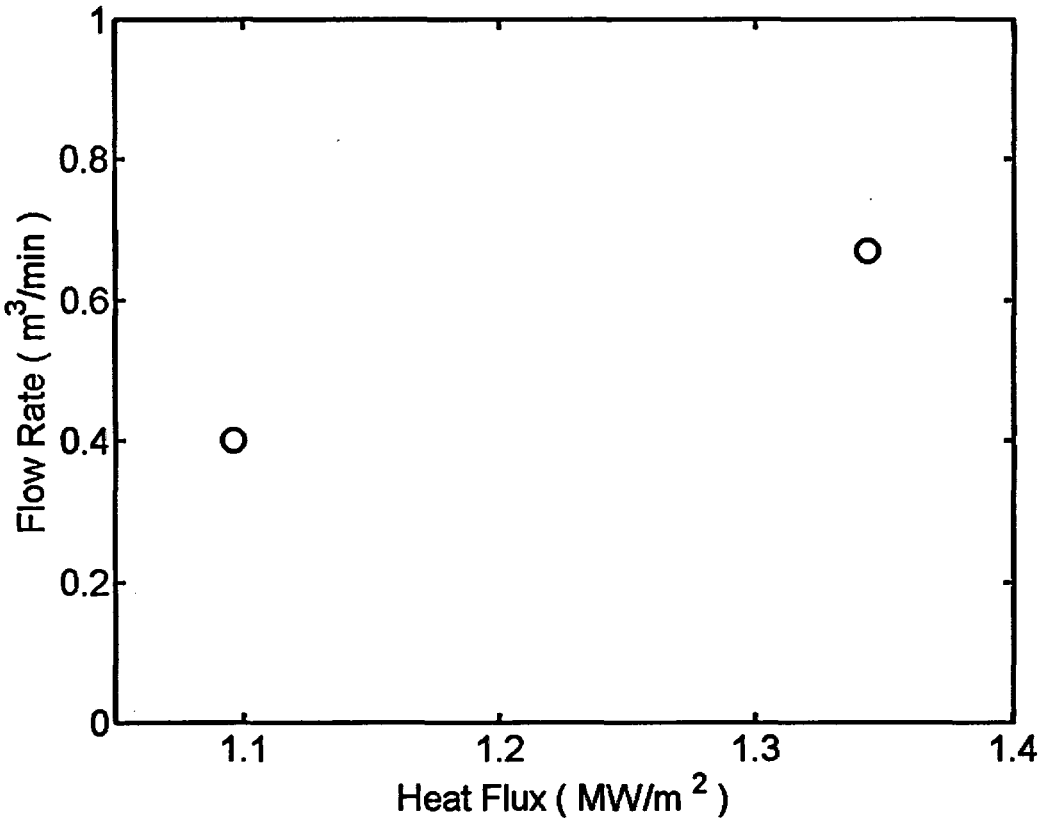

Figure A31.4. Flow rate vs. heat fluxes.

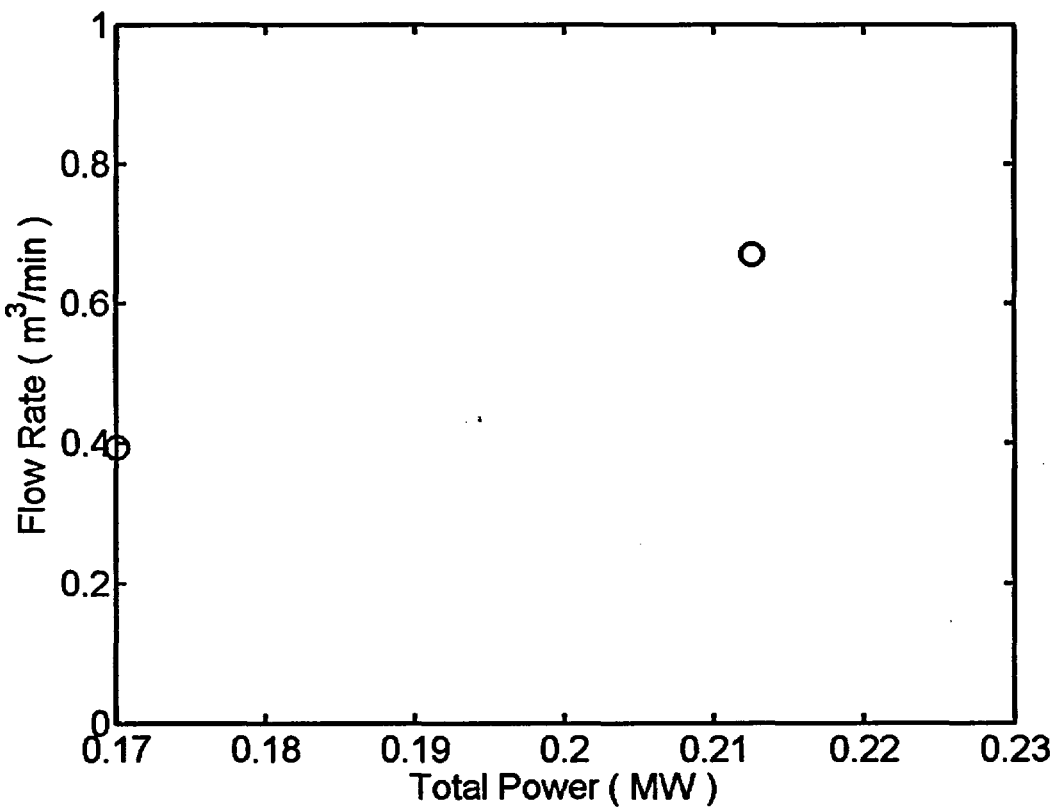

Figure A31.5. Flow rate vs. total input power.

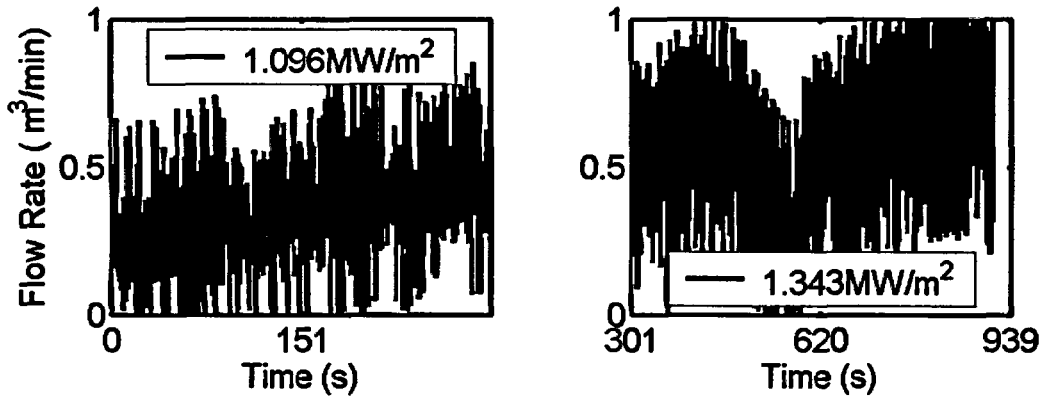

Figure A31.6. Flow rates at different heat fluxes.

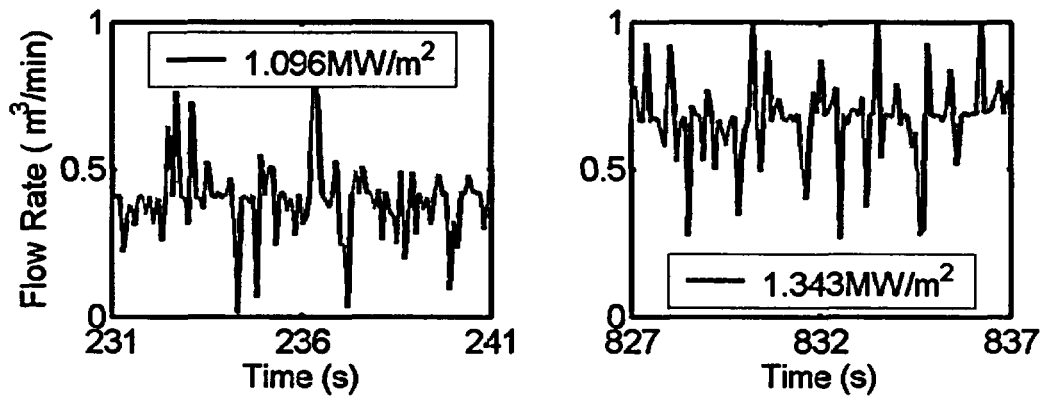

Figure A31.7. Flow rates at different heat fluxes at selected time intervals.

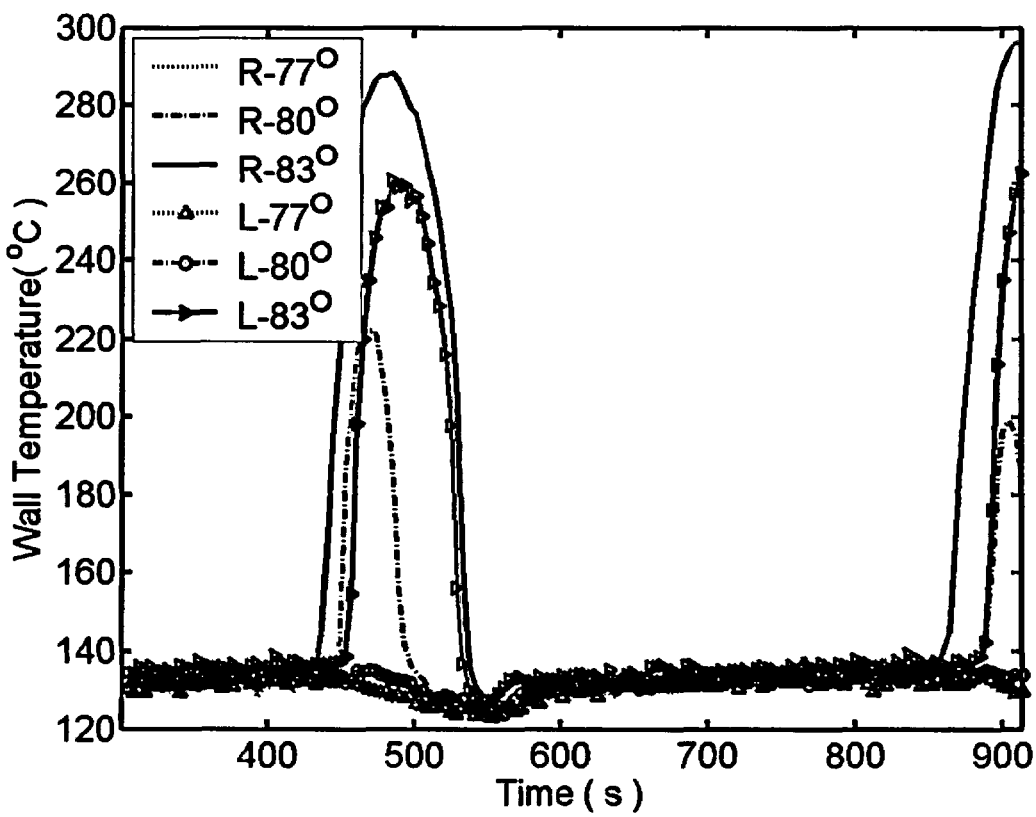

Figure A31.8. Temperature history at CHF.

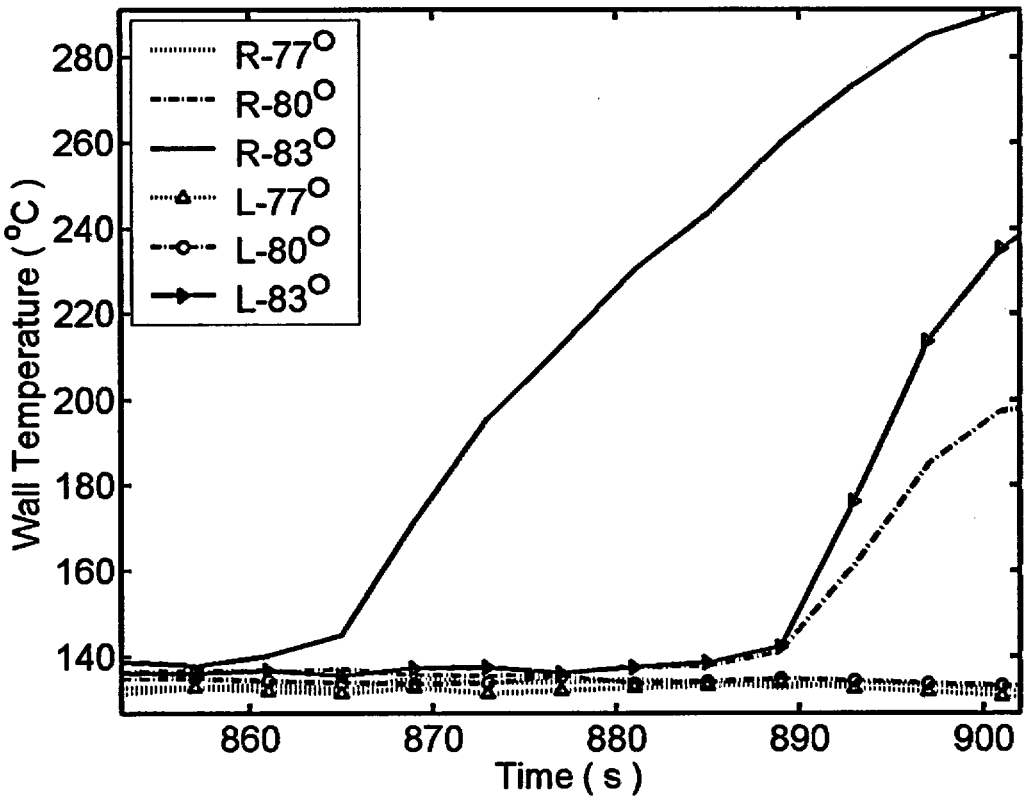

Figure A31.9. Temperature history at CHF in detail.

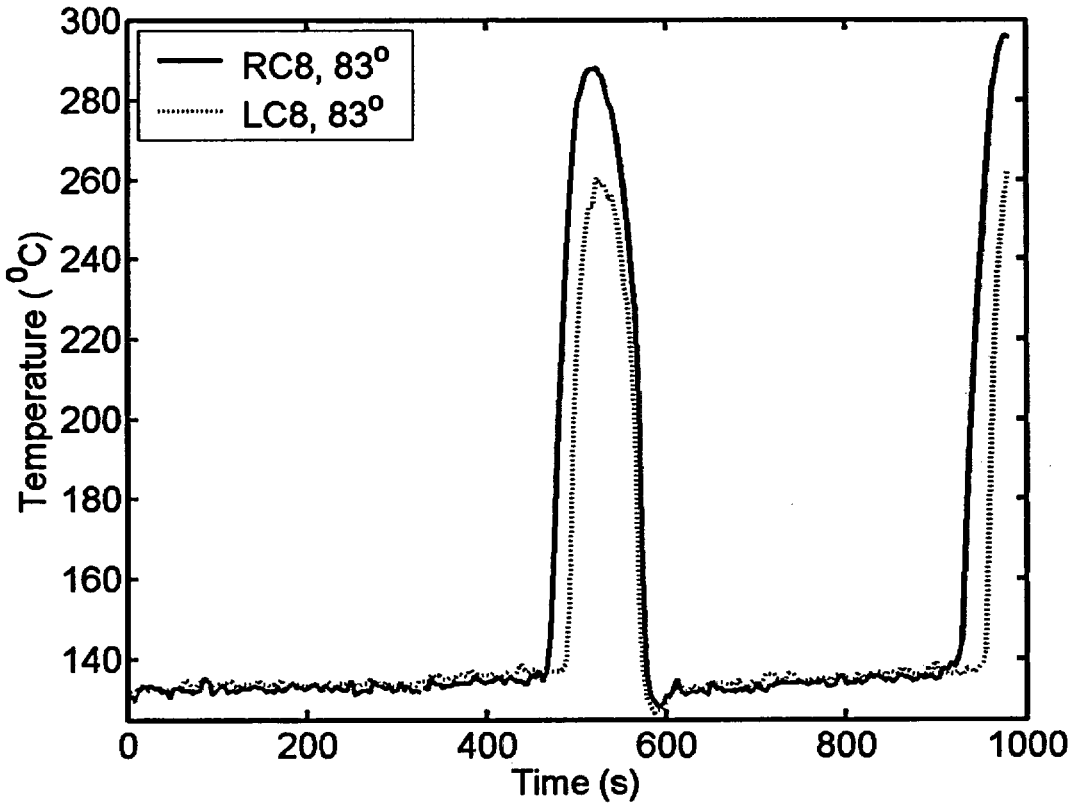

Figure A31.10. Wall temperature history measured by two thermocouples LC8 and RC8.

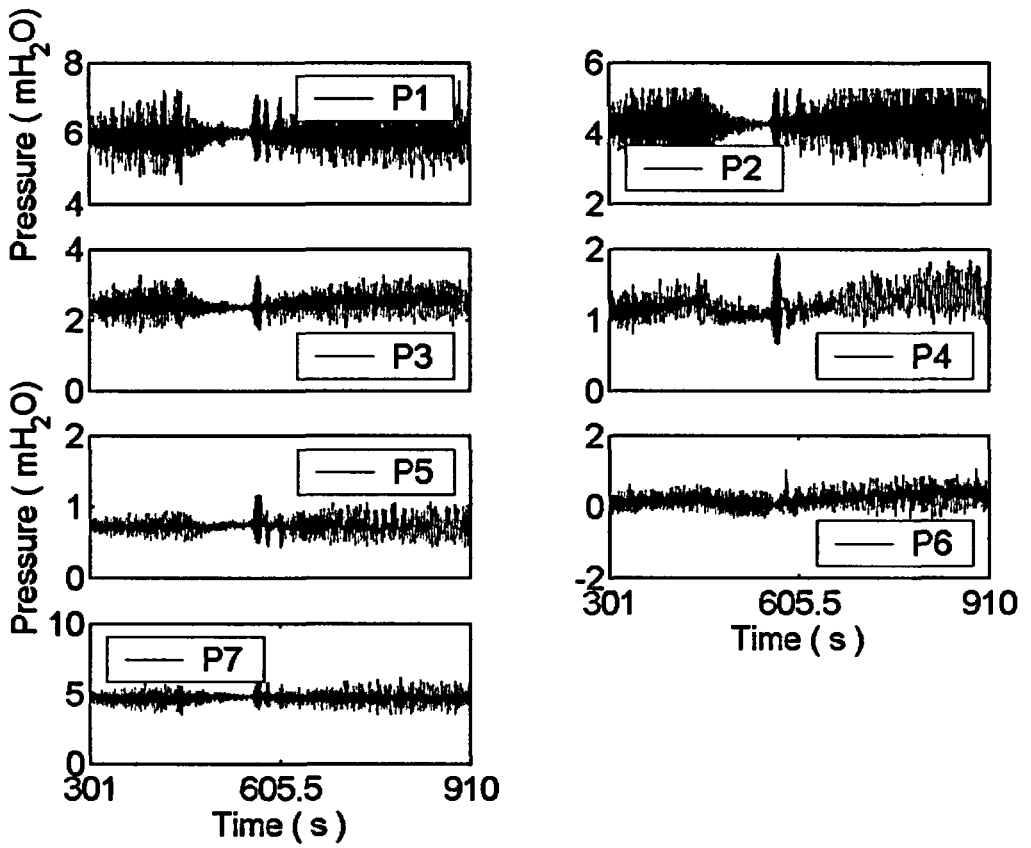

Figure A31.11. Pressure transducer data for time interval 301 to 910 s.

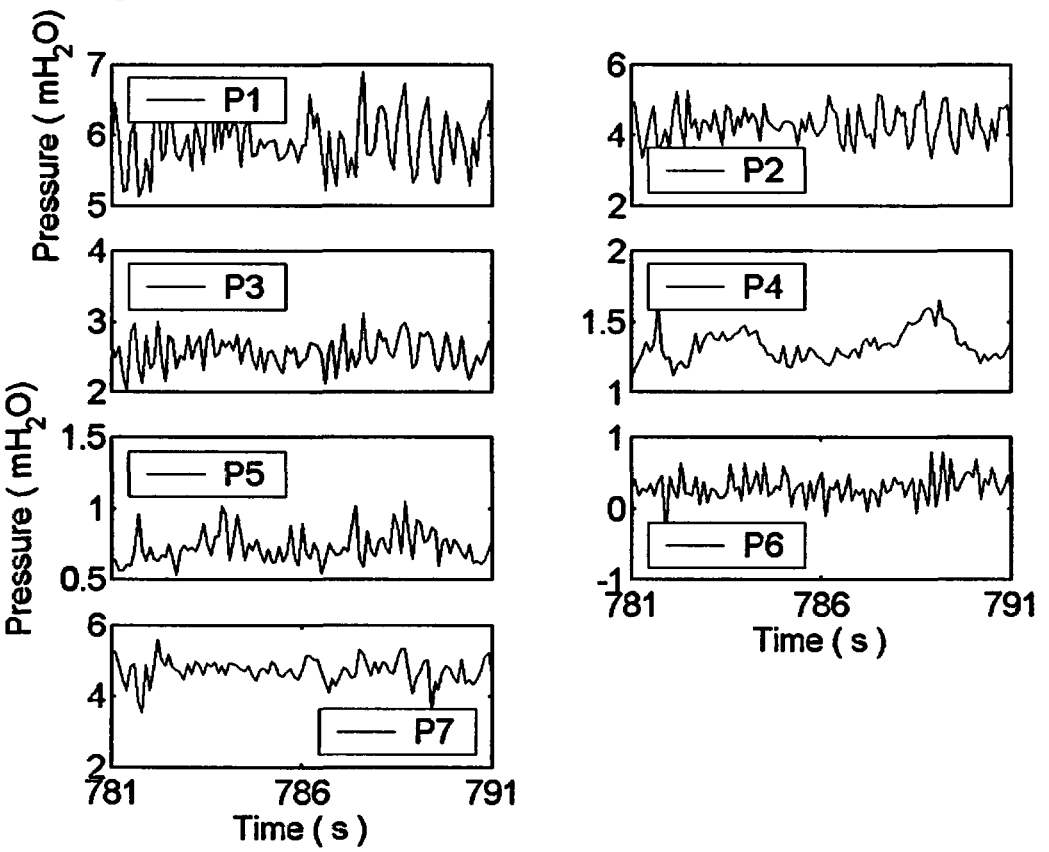

Figure A31.12. Pressure data in detail at q = 1.343 MW/m^2

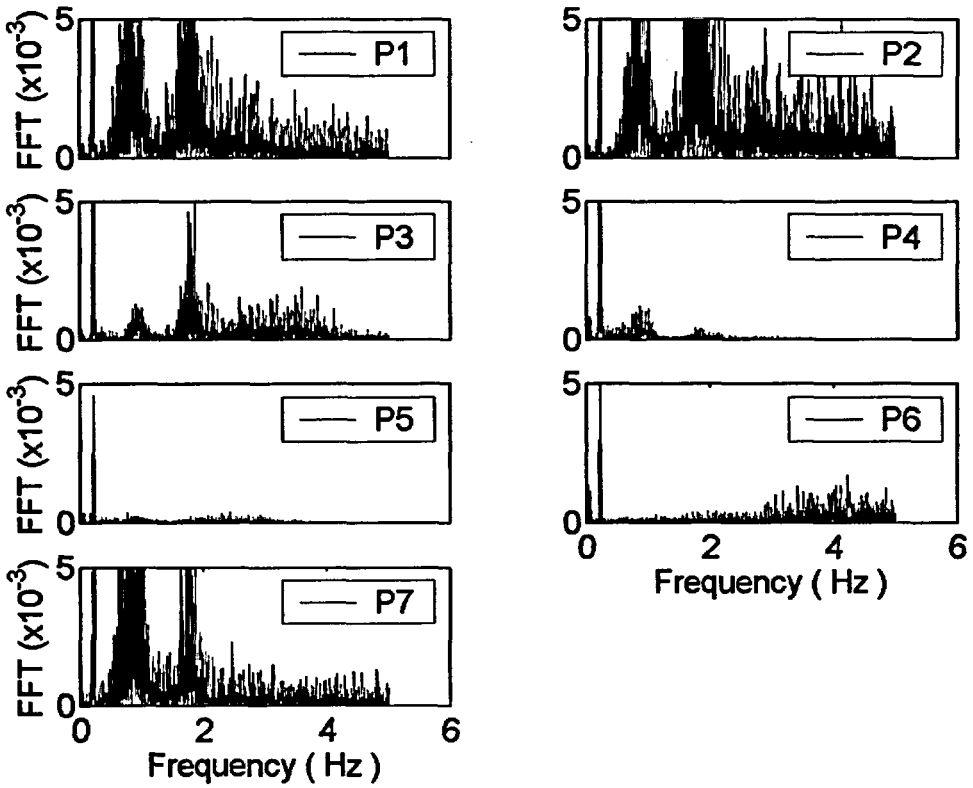

Figure A31.13. FFT of pressure time series for time interval 301 to 910 s.

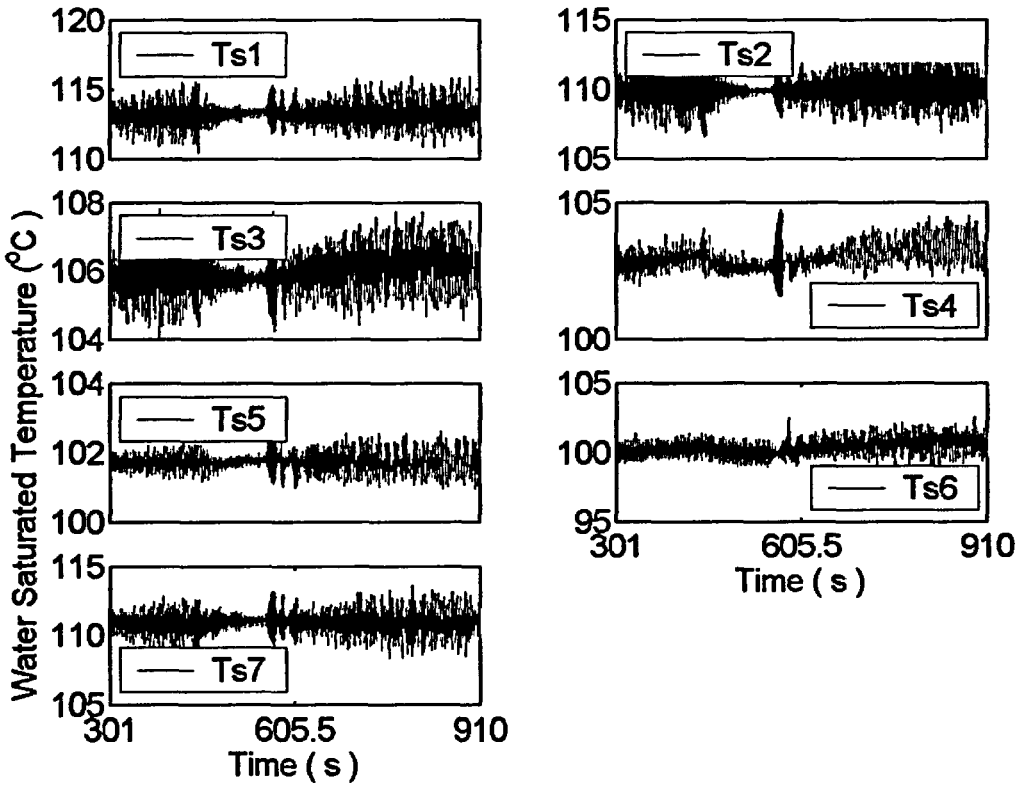

Figure A31.14. Water saturation temperature calculated from local pressure data for time interval 301 to 910 s.

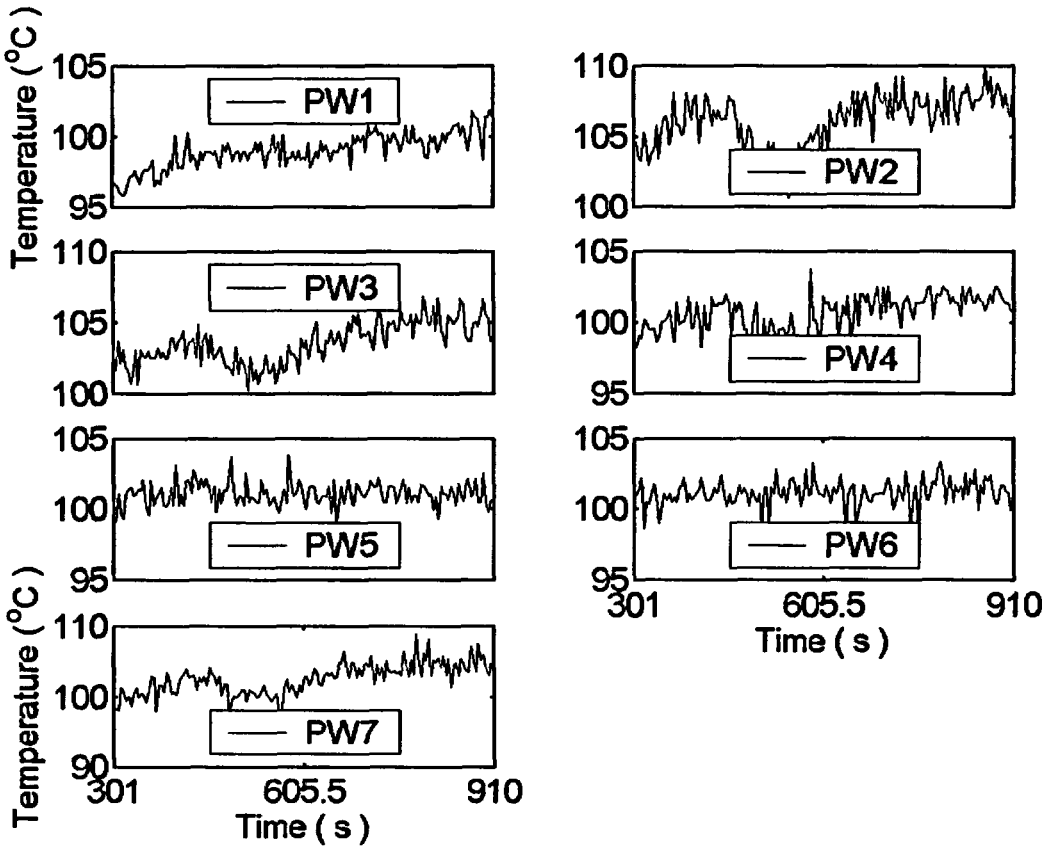

Figure A31.15. Water temperature measured at location of pressure transducer for time interval 301 to 910 s.

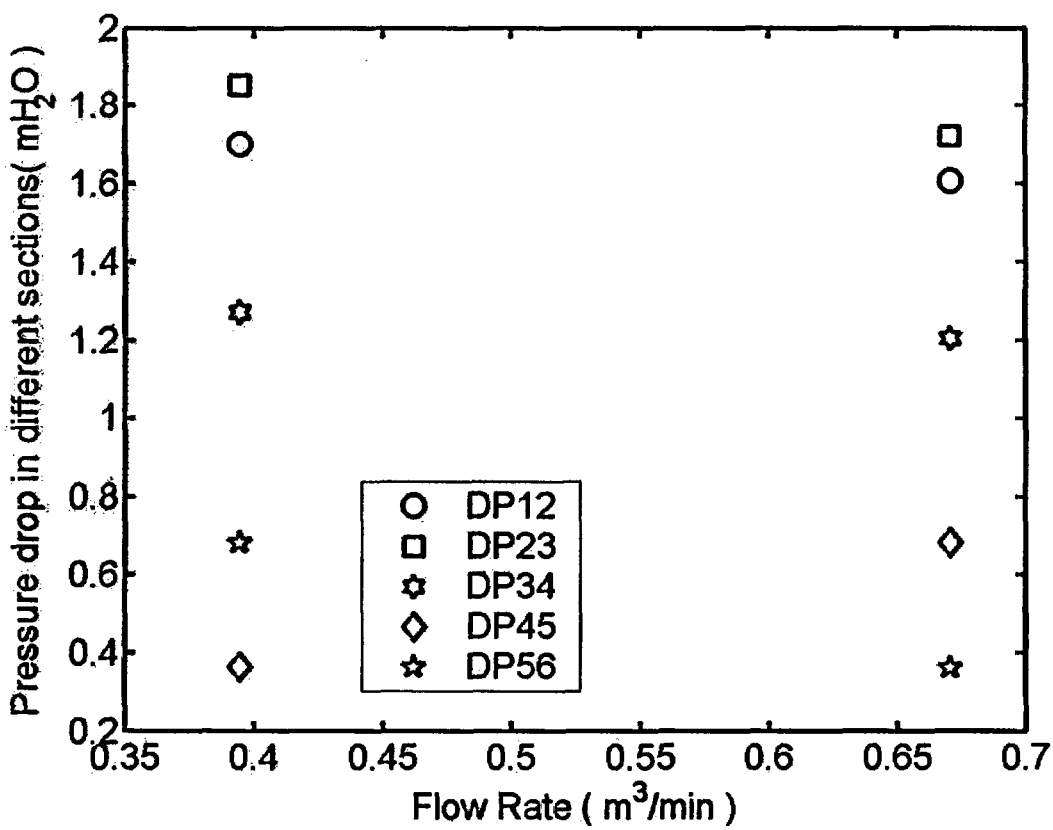

Figure A31.16. Pressure drop vs. flow rate at different heat fluxes.

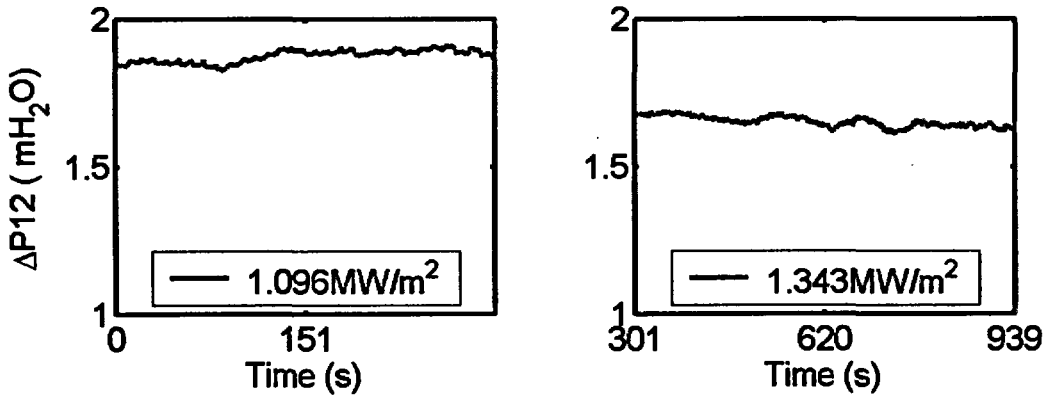

Figure A31.17. Differential Pressure ΔP12 at different heat fluxes.

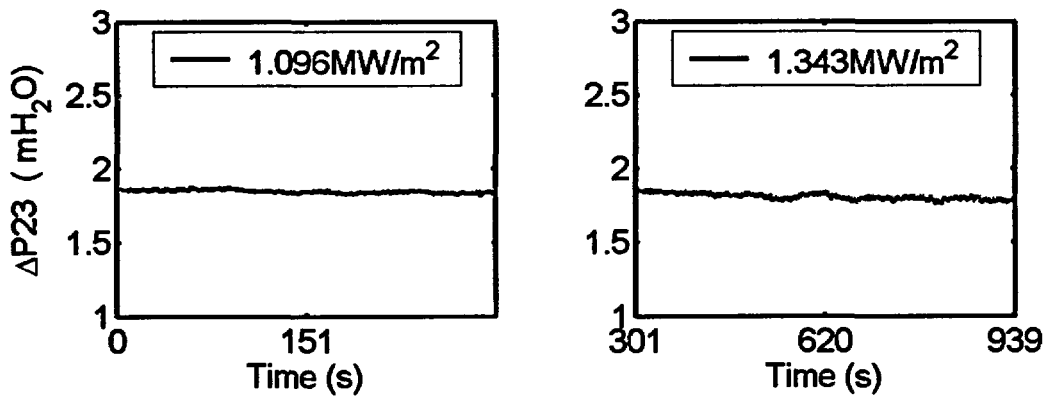

Figure A31.18. Differential Pressure ΔP23 at different heat fluxes.

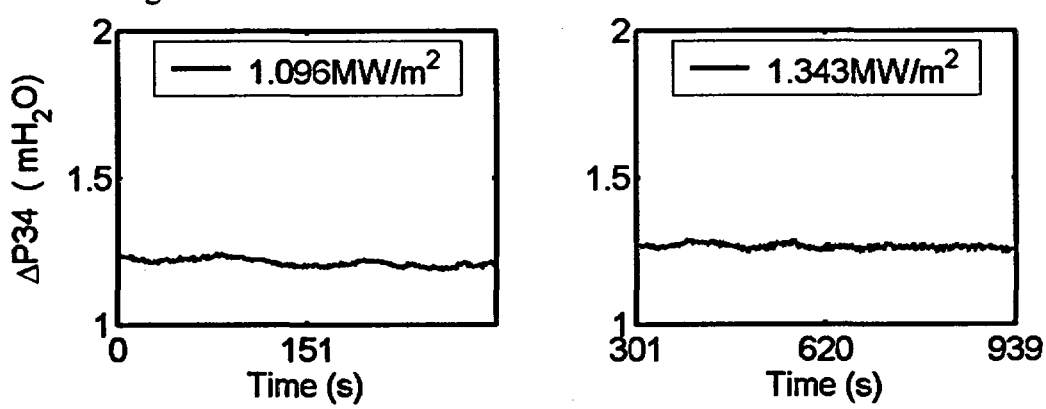

Figure A31.19. Differential Pressure ΔP34 at different heat fluxes.

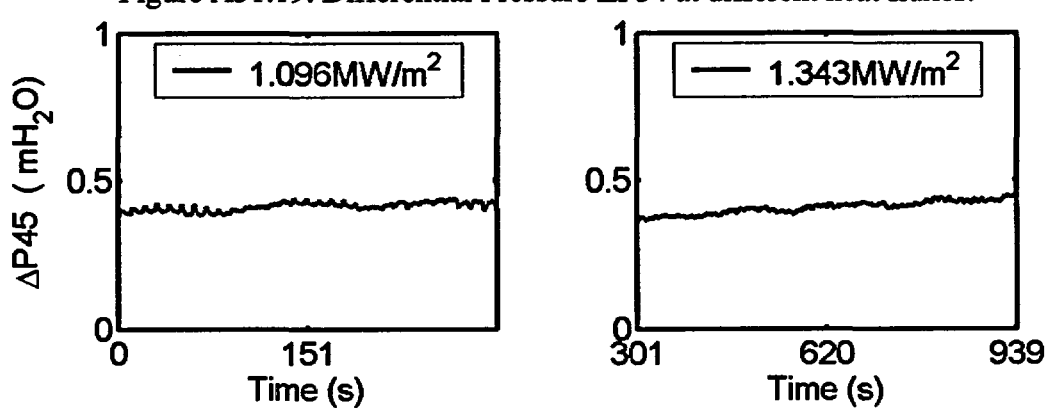

Figure A31.20. Differential Pressure ΔP45 at different heat fluxes.

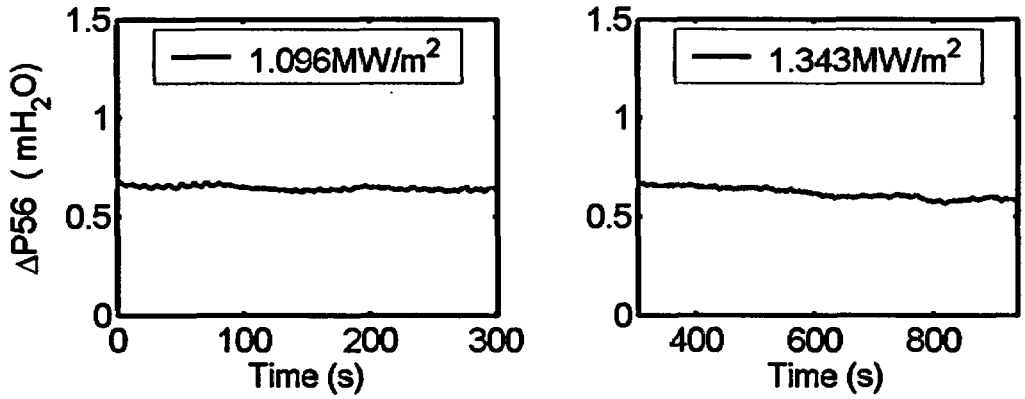

Figure A31.21. Differential Pressure ΔP56 at different heat fluxes.

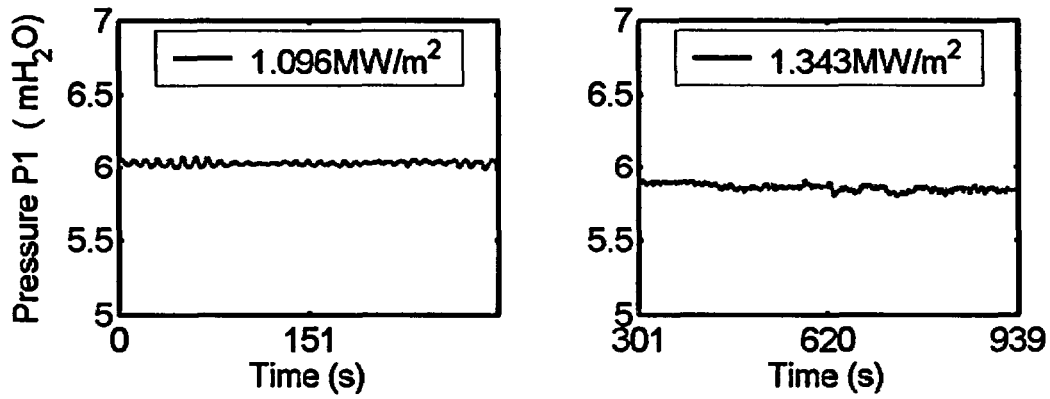

Figure A31.22. Pressure P1 at different heat fluxes.

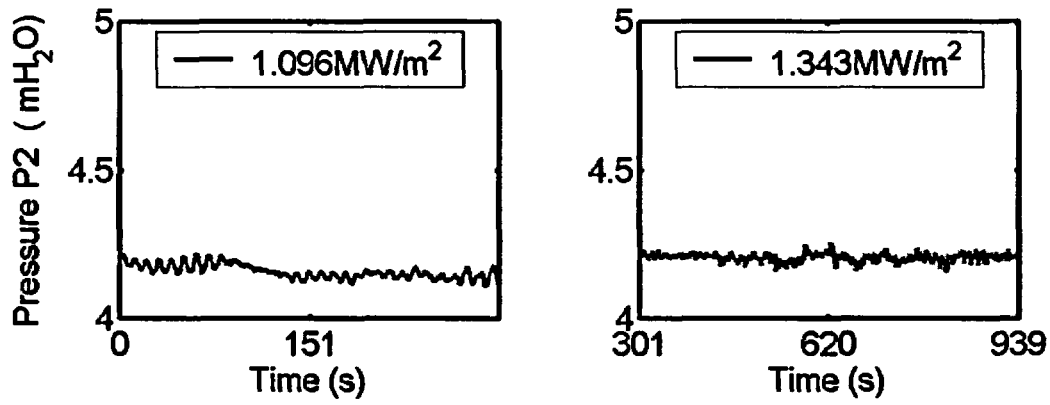

Figure A31.23. Pressure P2 at different heat fluxes.

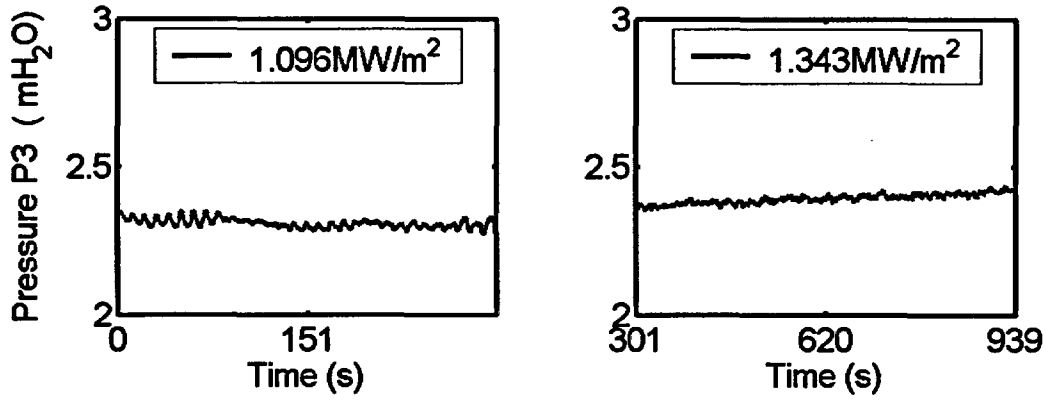

Figure A31.24. Pressure P3 at different heat fluxes.

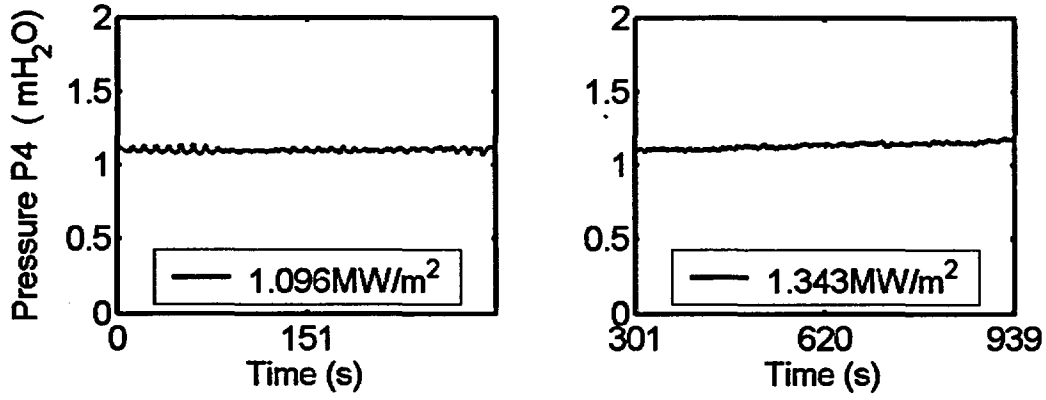

Figure A31.25. Pressure P4 at different heat fluxes.

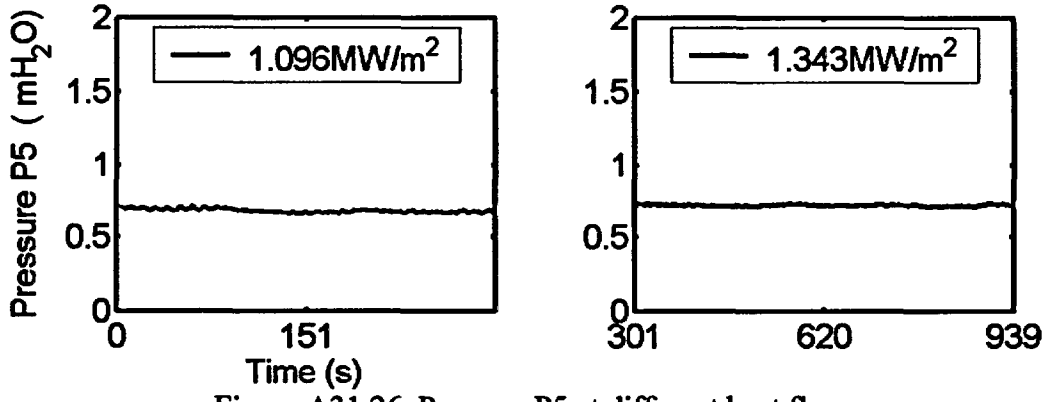

Figure A31.26. Pressure P5 at different heat fluxes.

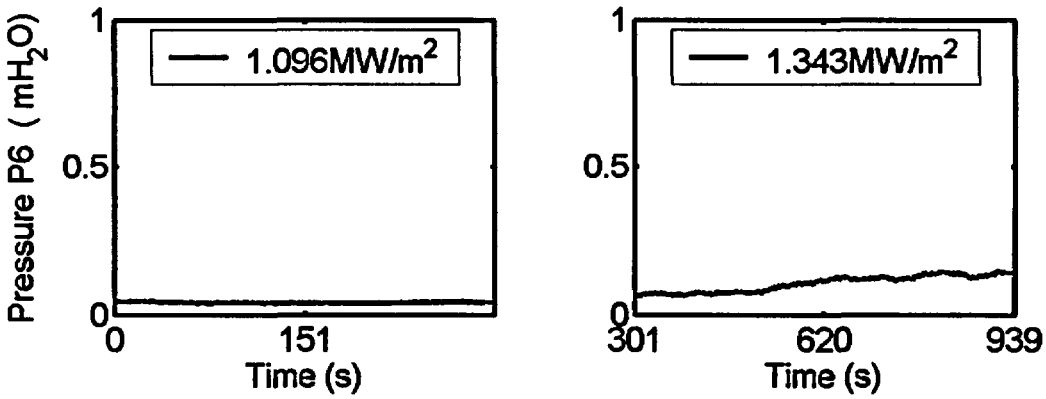

Figure A31.27. Pressure P6 at different heat fluxes.

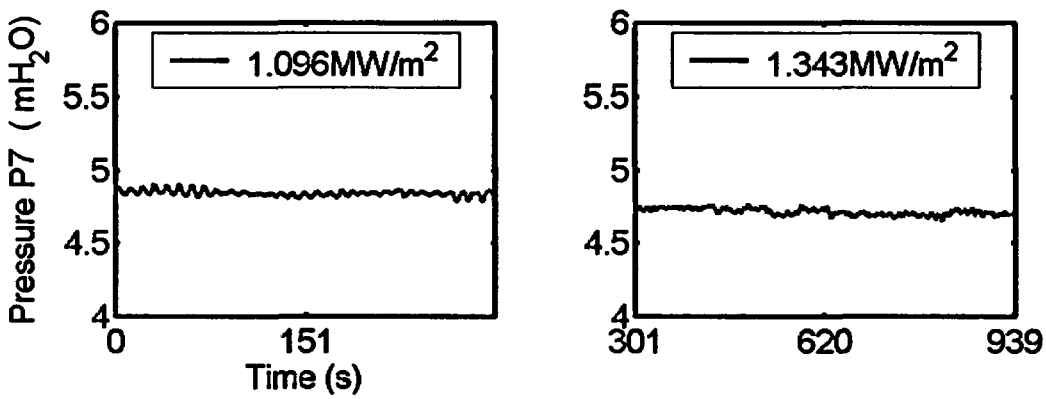

Figure A31.28. Pressure P7 at different heat fluxes.

ID #32

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T48B	1288	RC7	80	C	12/12/2002/15:10

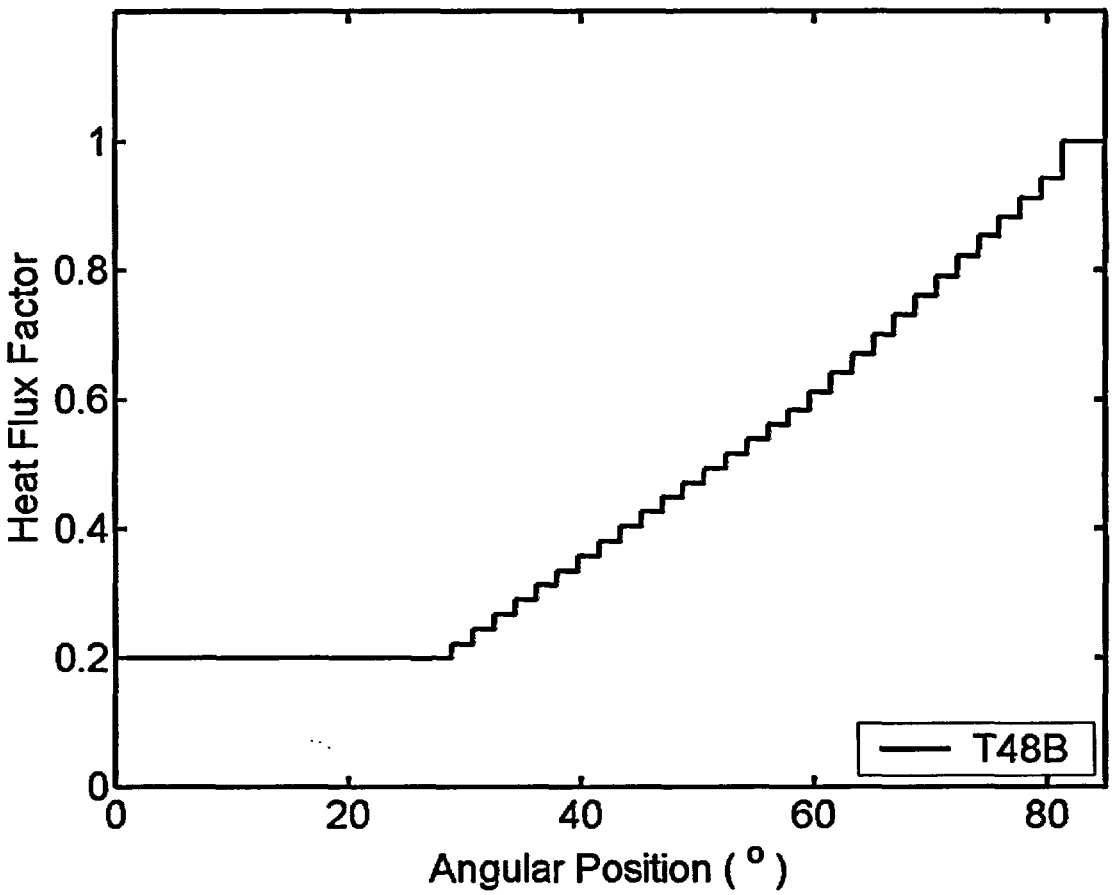

Figure A32.1. Power shape.

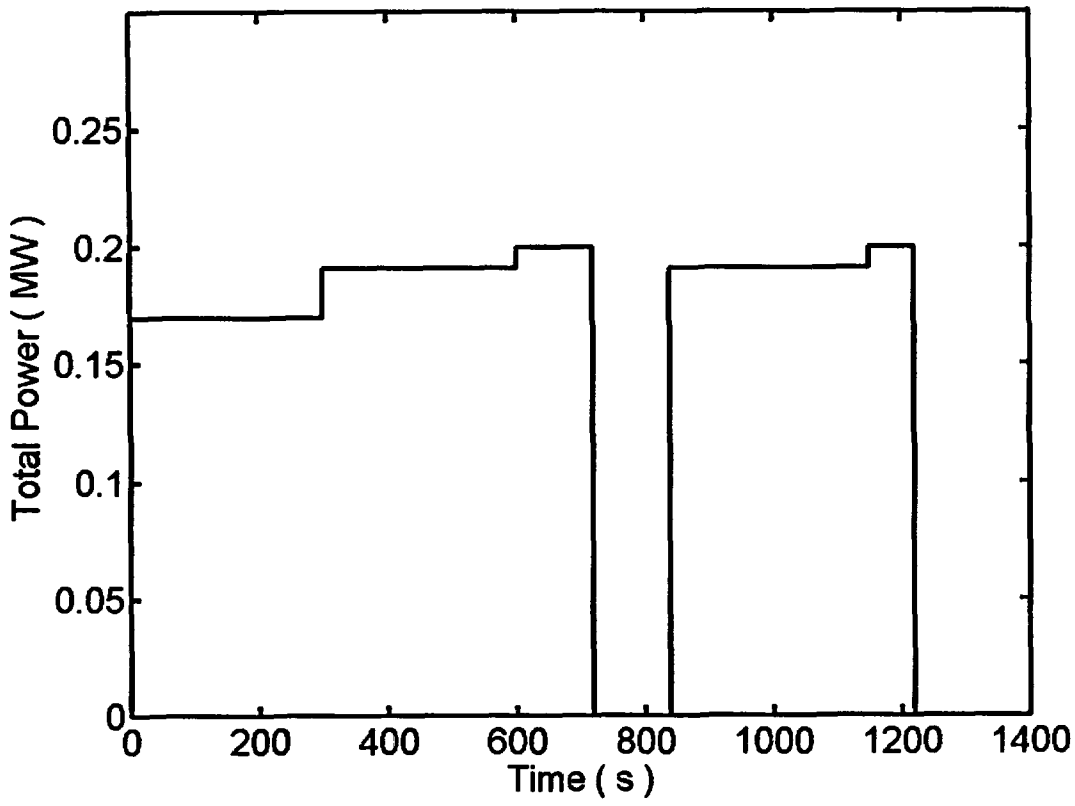

Figure A32.2. Total input power history.

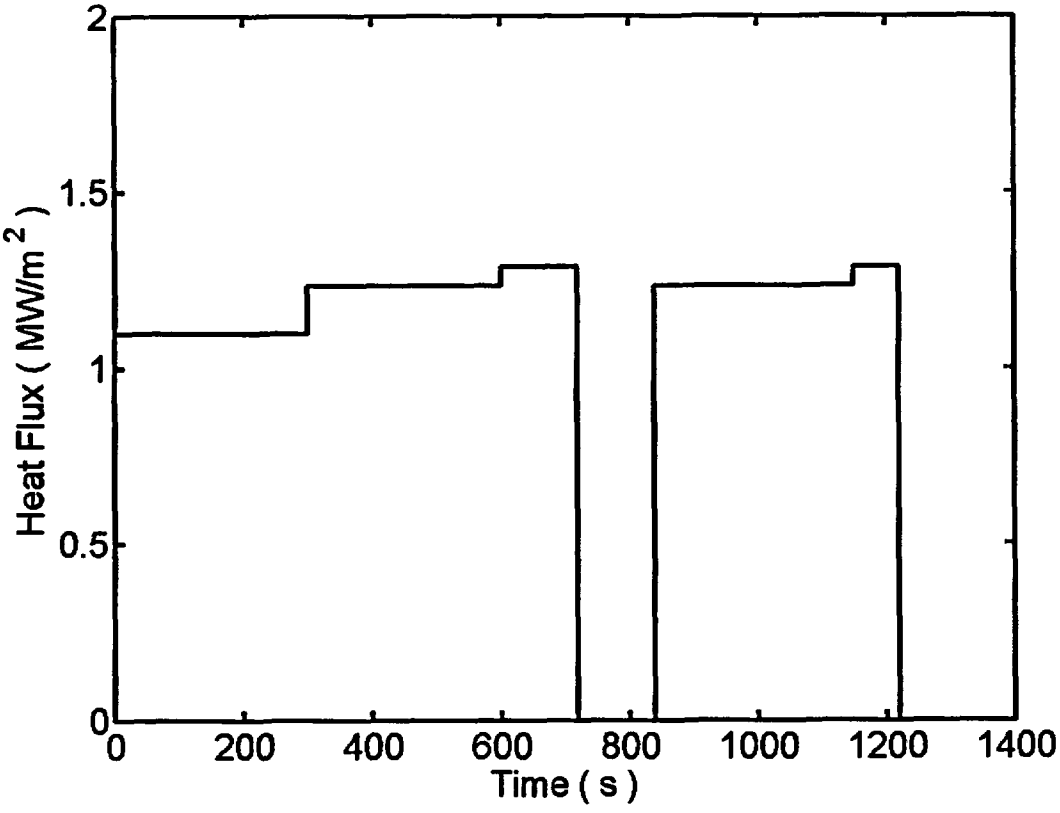

Figure A32.3. Heat flux history.

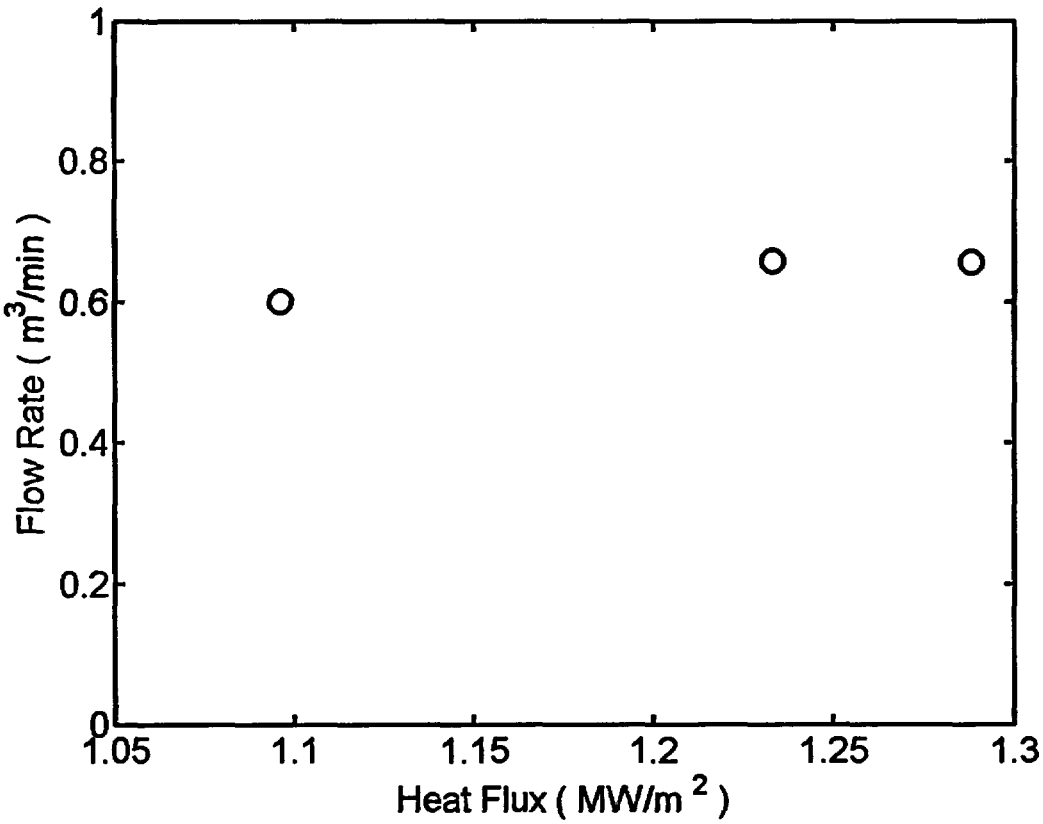

Figure A32.4. Flow rate vs. heat fluxes.

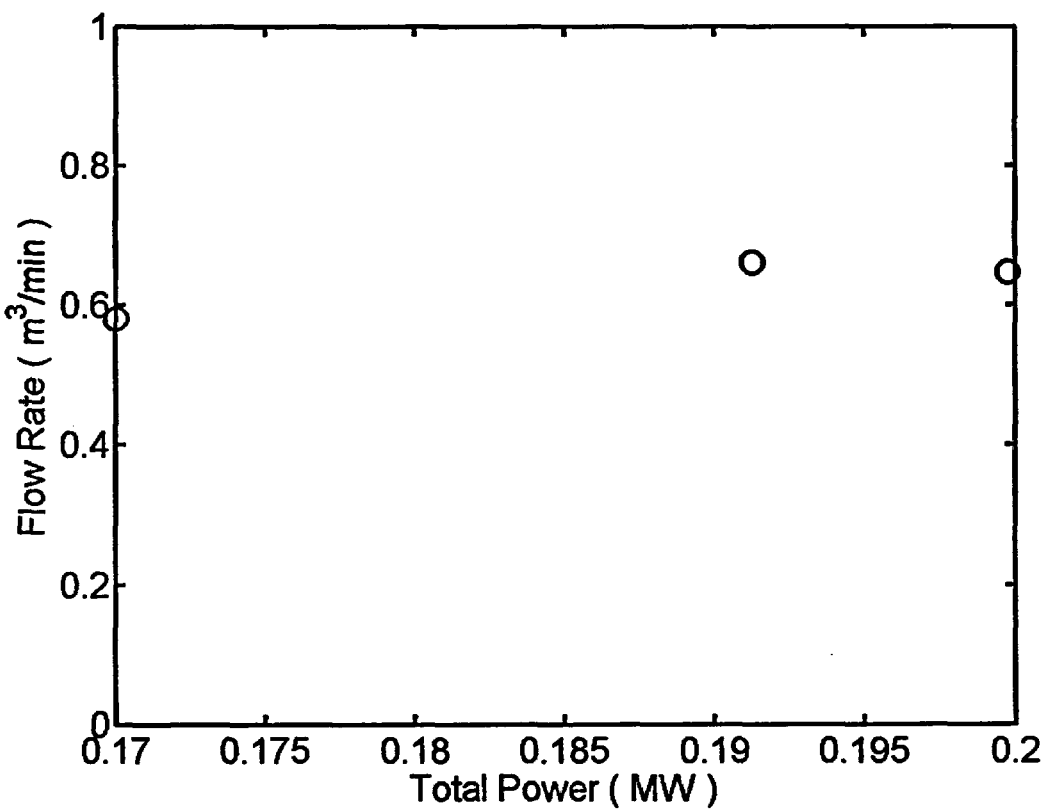

Figure A32.5. Flow rate vs. total input power.

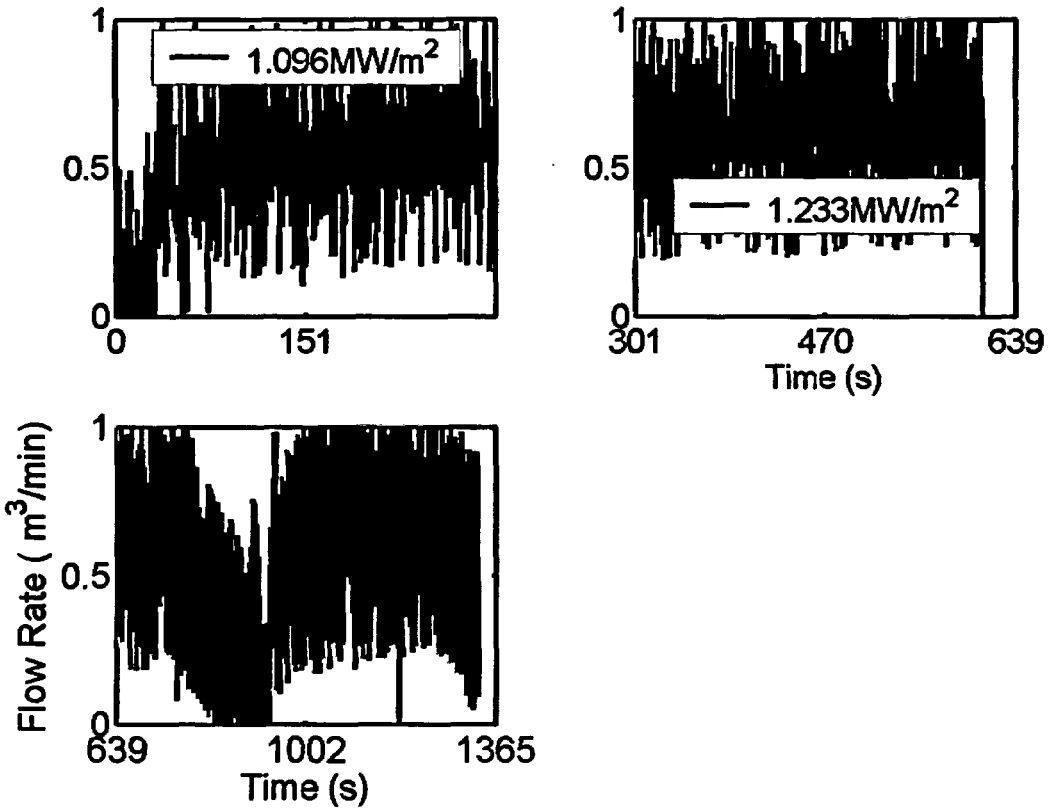

Figure A32.6. Flow rates at different heat fluxes.

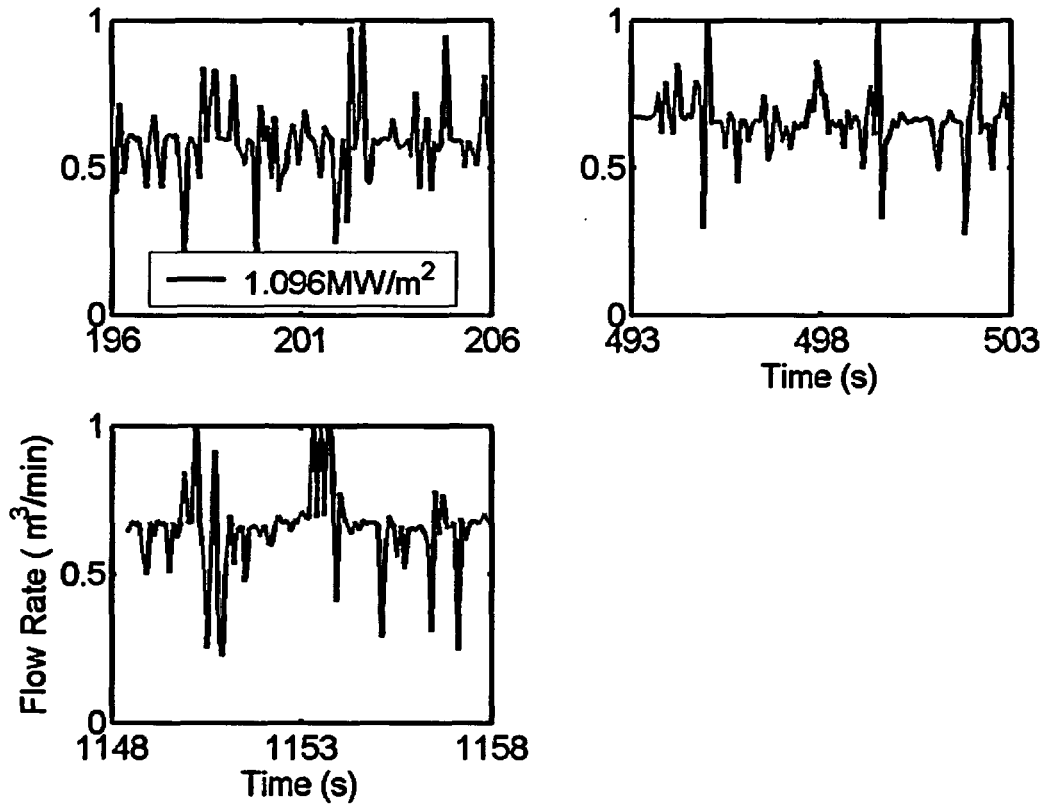

Figure A32.7. Flow rates at different heat fluxes at selected time intervals.

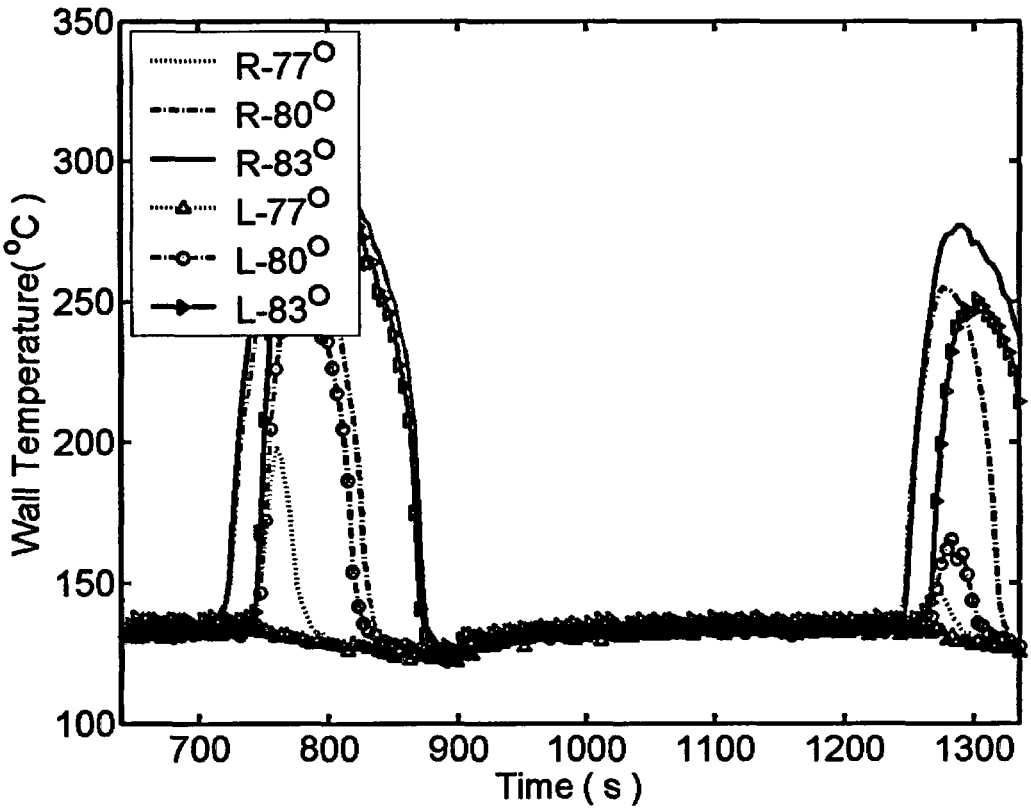

Figure A32.8. Temperature history at CHF.

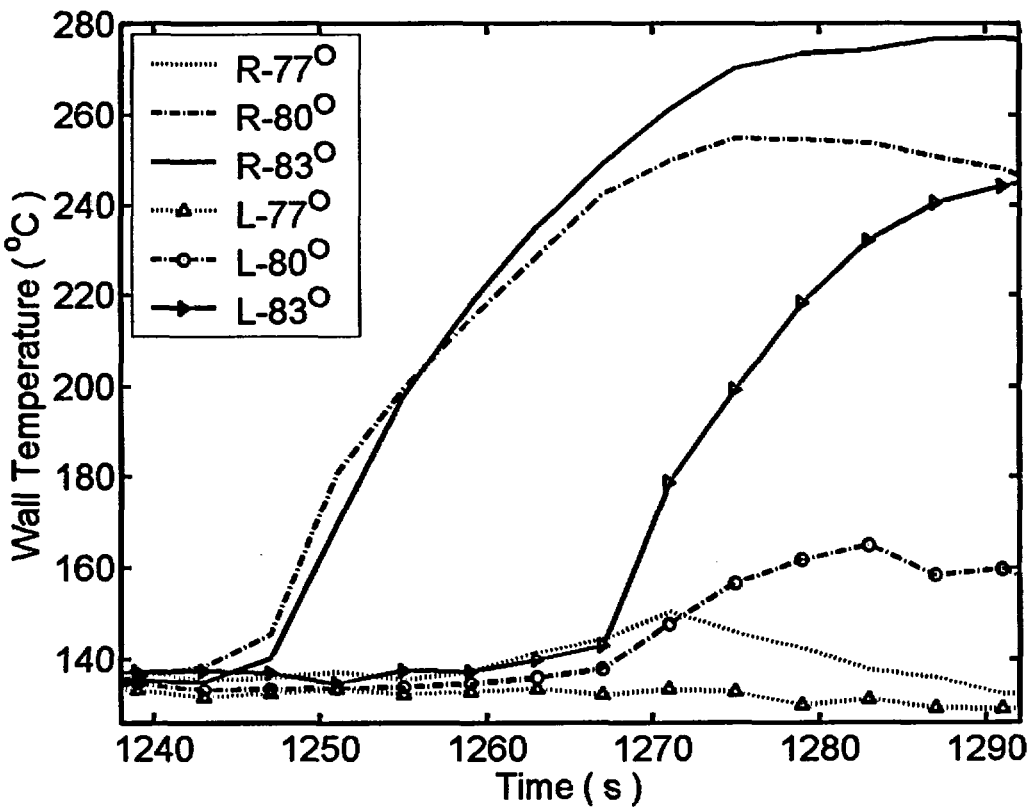

Figure A32.9. Temperature history at CHF in detail.

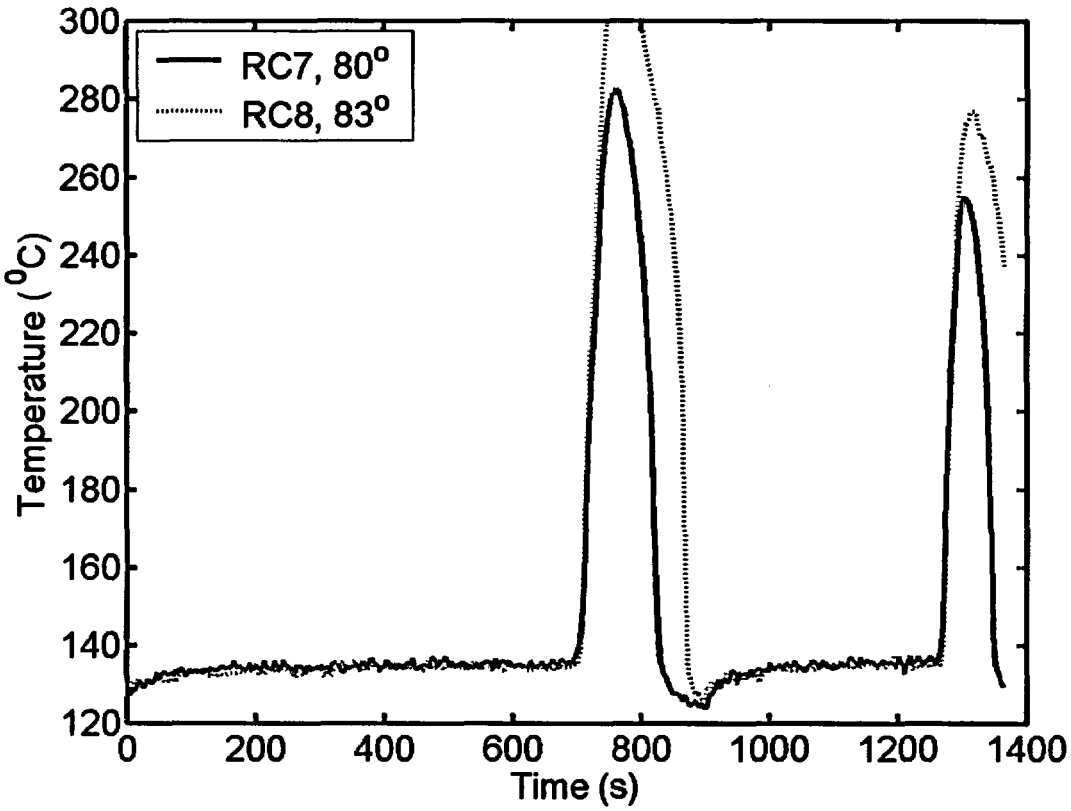

Figure A32.10. Wall temperature history measured by two thermocouples RC7 and RC8.

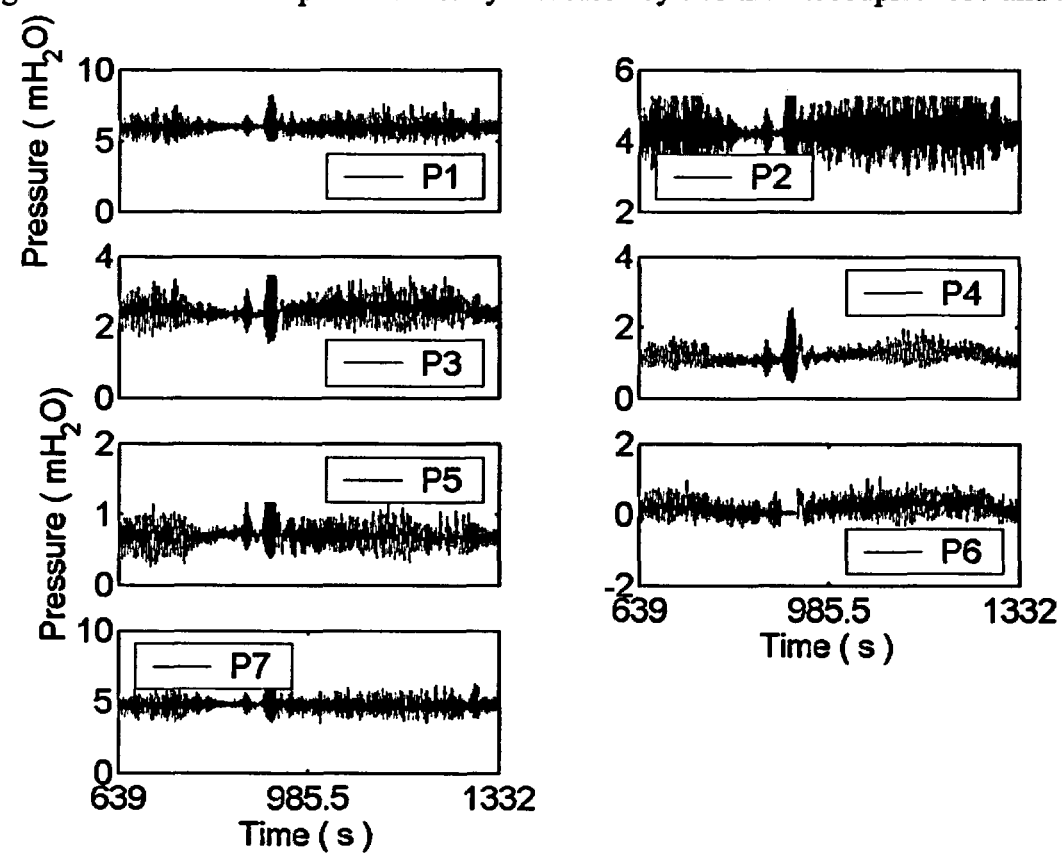

Figure A32.11. Pressure transducer data for time interval 639 to 1332 s.

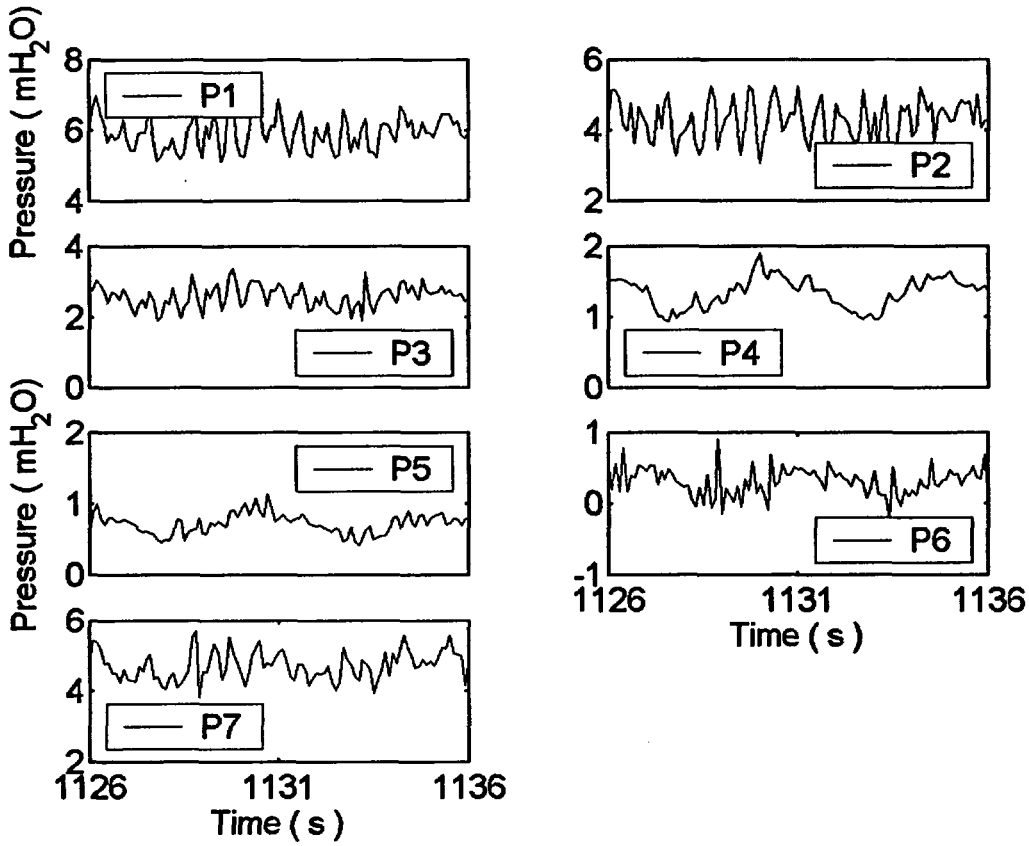

Figure A32.12. Pressure data in detail at q = 1.288 MW/m^2.

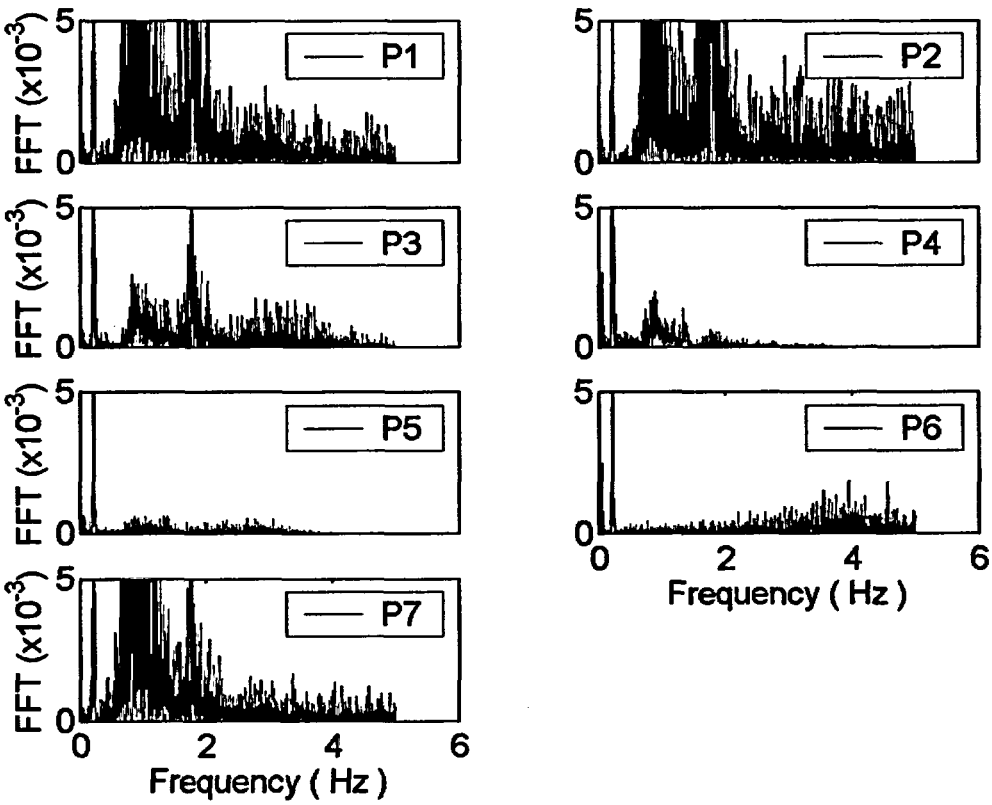

Figure A32.13. FFT of pressure time series for time interval 639 to 1332 s.

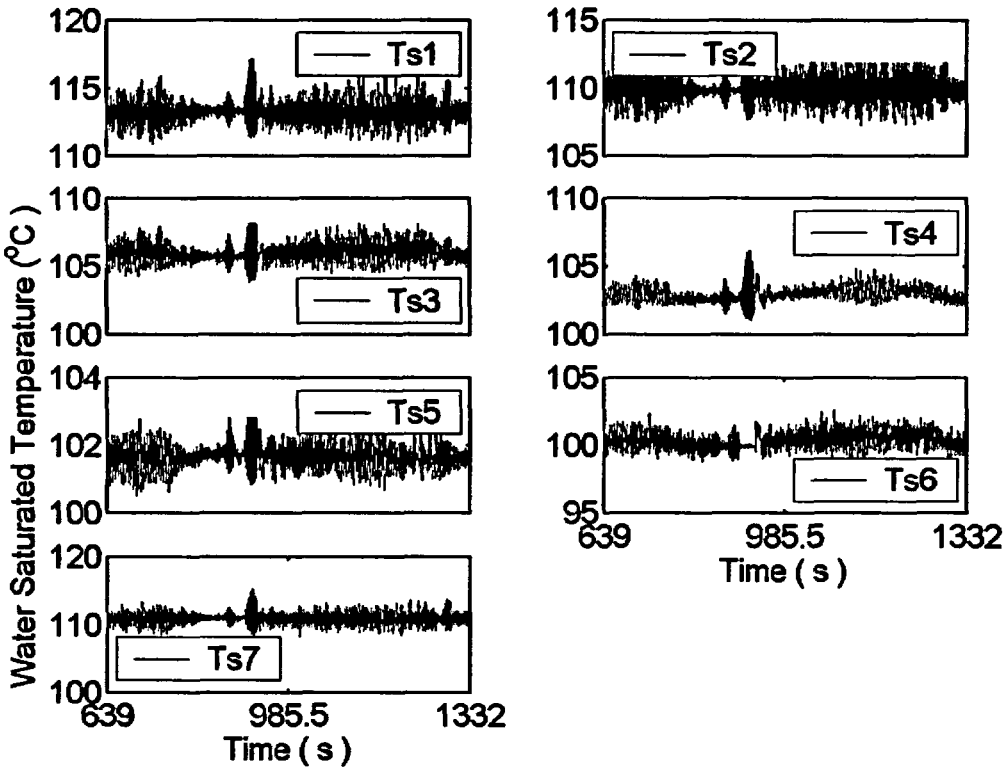

Figure A32.14. Water saturation temperature calculated from local pressure data for time interval 639 to 1332 s.

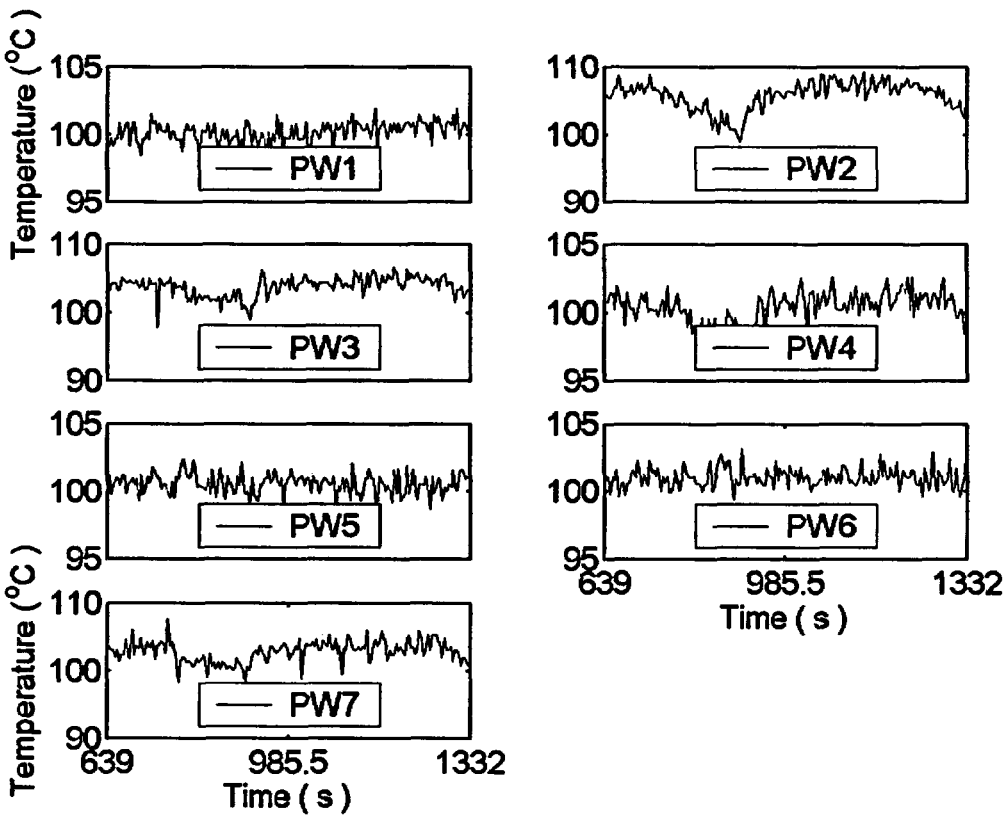

Figure A32.15. Water temperature measured at location of pressure transducer for time interval 639 to 1332 s.

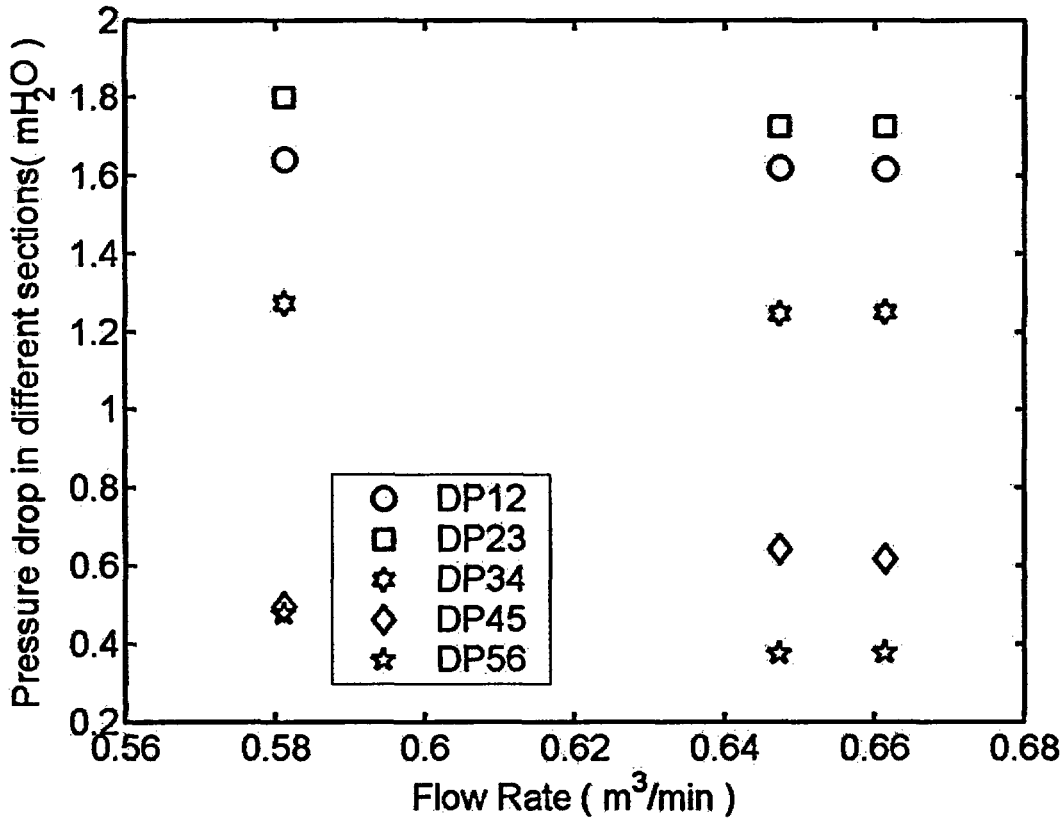

Figure A32.16. Pressure drop vs. flow rate at different heat fluxes.

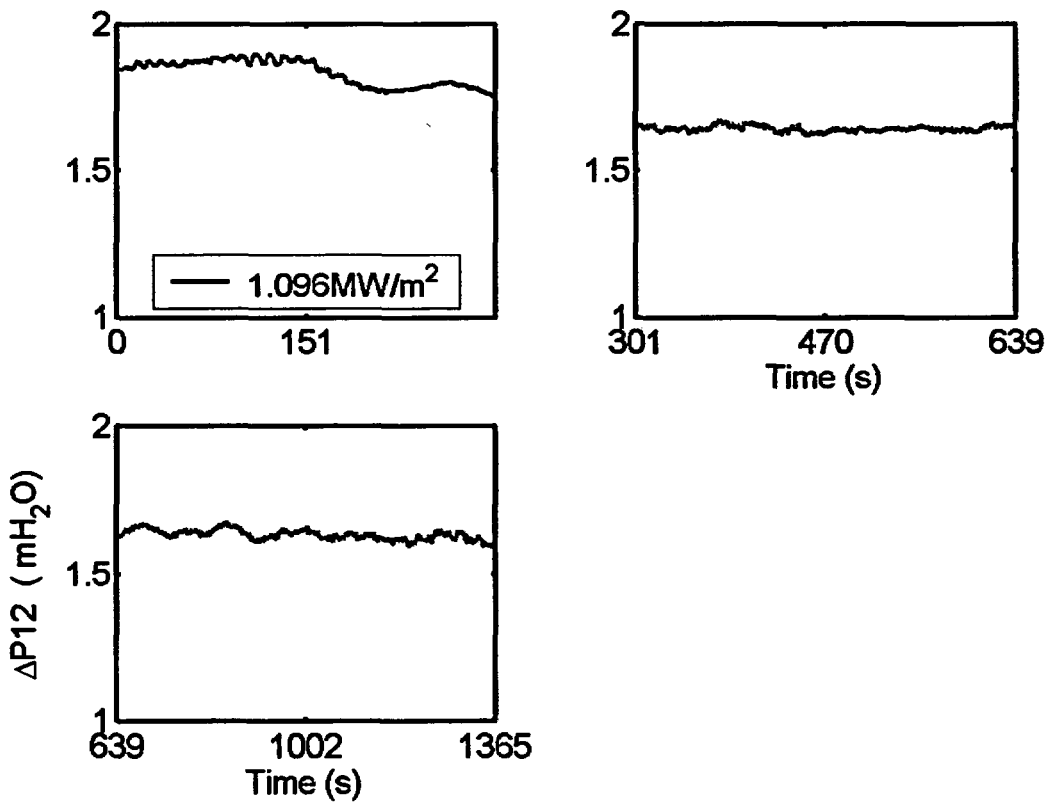

Figure A32.17. Differential Pressure ΔP12 at different heat fluxes.

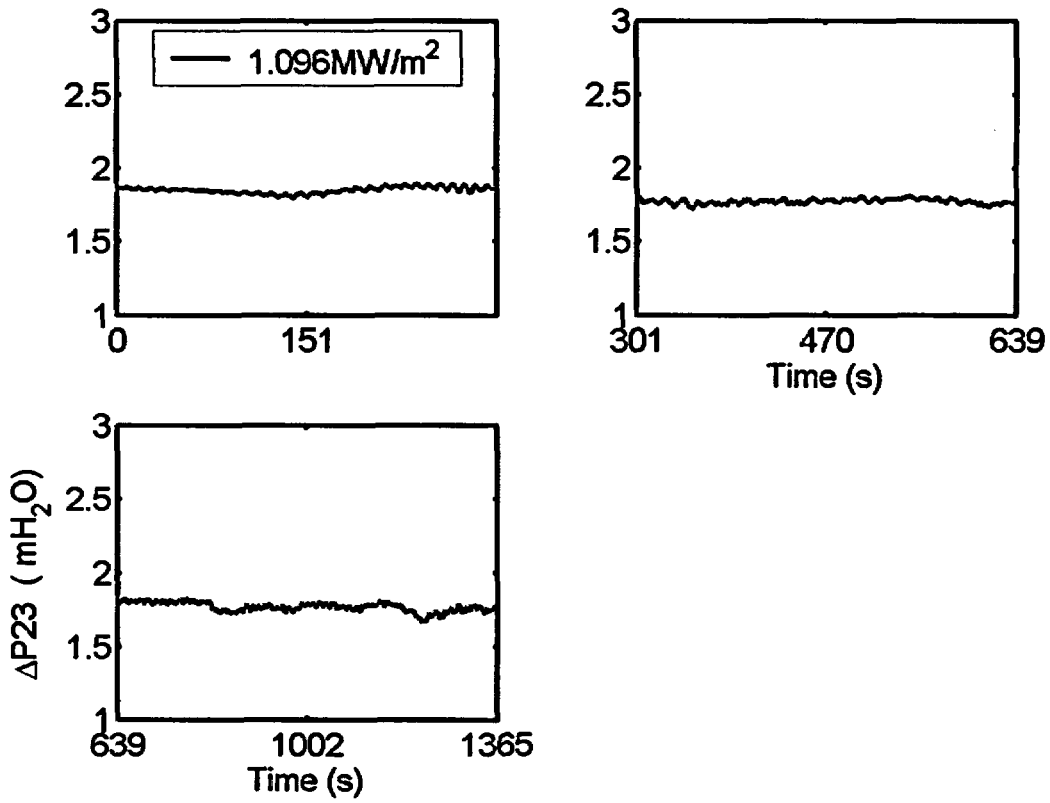

Figure A32.18. Differential Pressure ΔP23 at different heat fluxes.

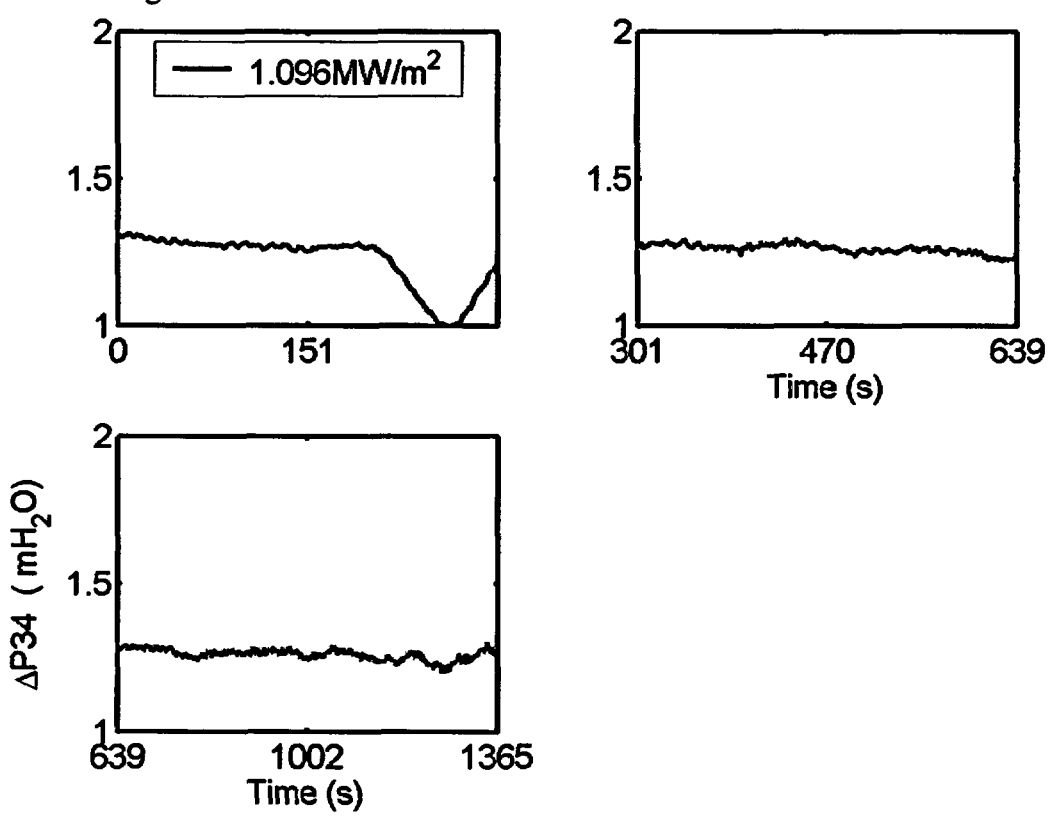

Figure A32.19. Differential Pressure ΔP34 at different heat fluxes.

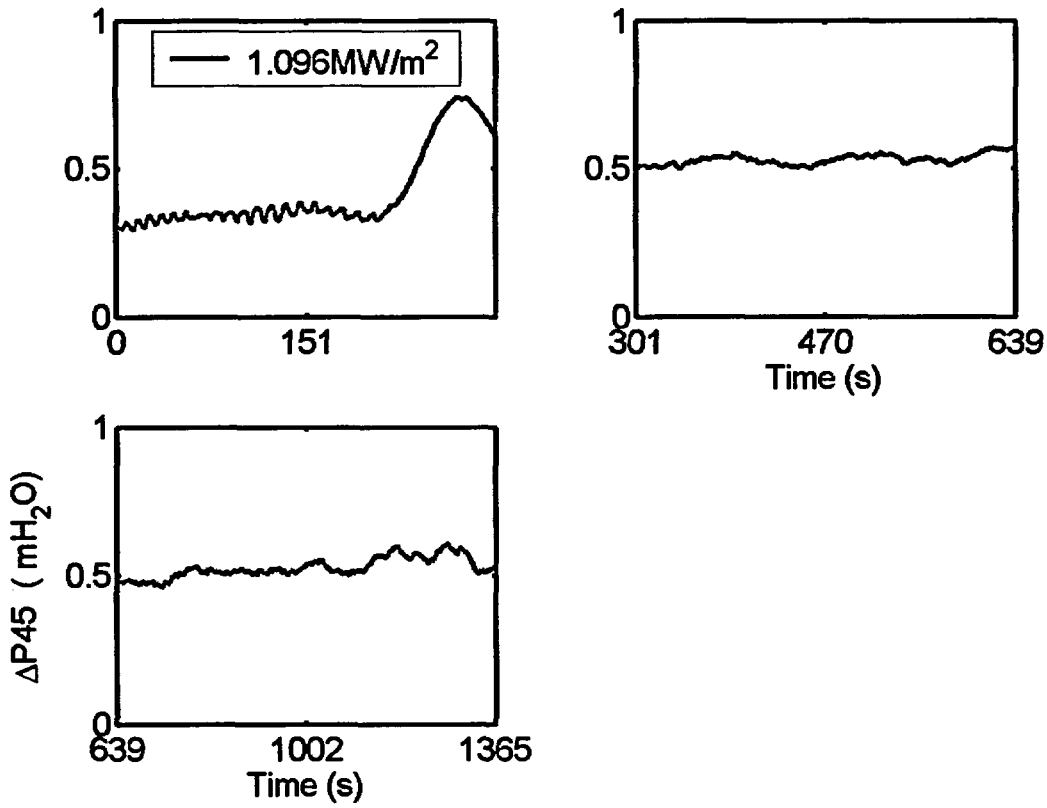

Figure A32.20. Differential Pressure ΔP45 at different heat fluxes.

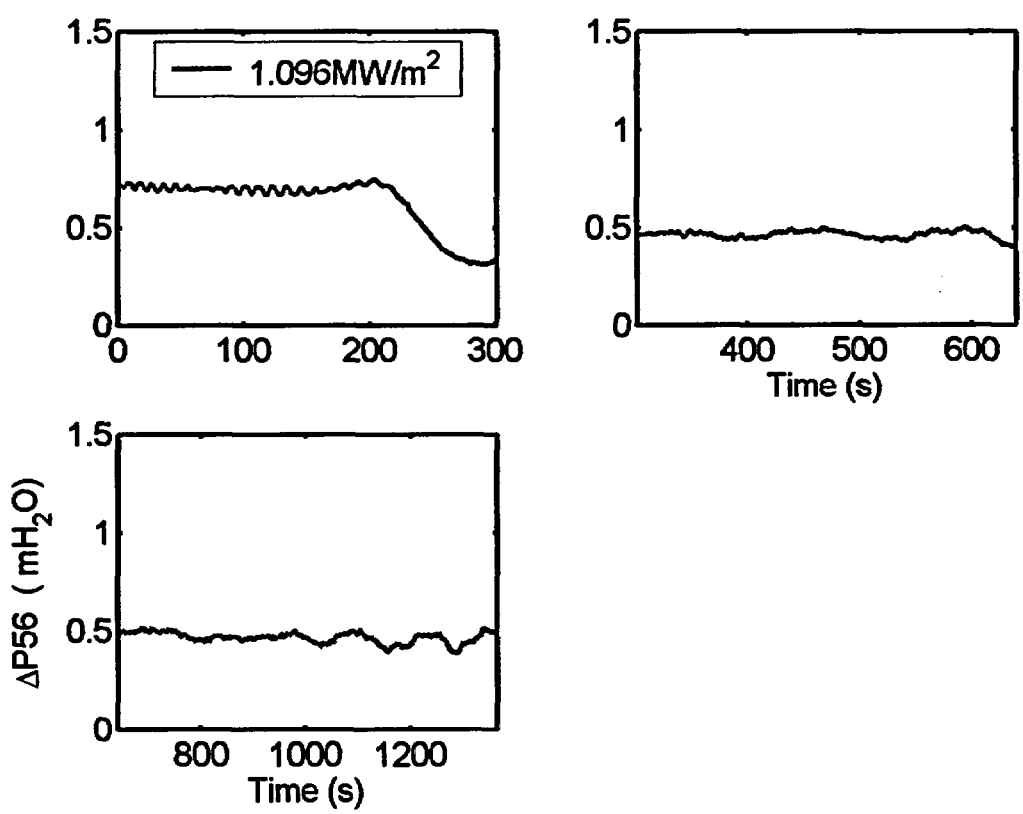

Figure A32.21. Differential Pressure ΔP56 at different heat fluxes.

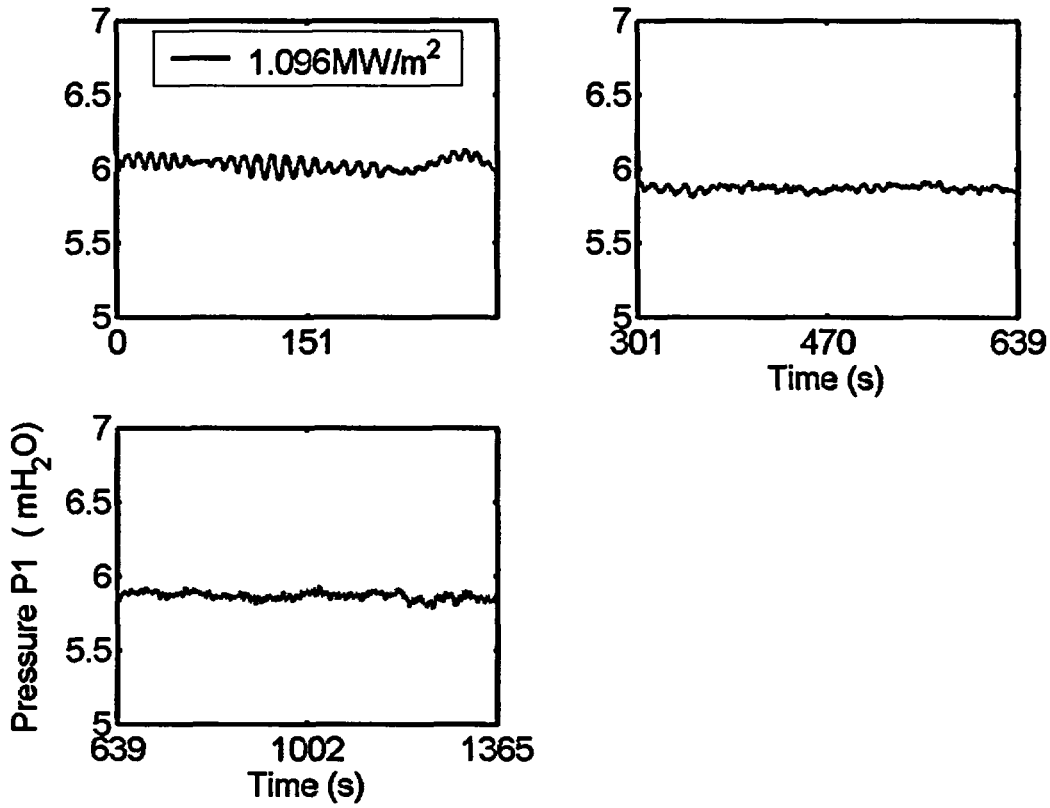

Figure A32.22. Pressure P1 at different heat fluxes.

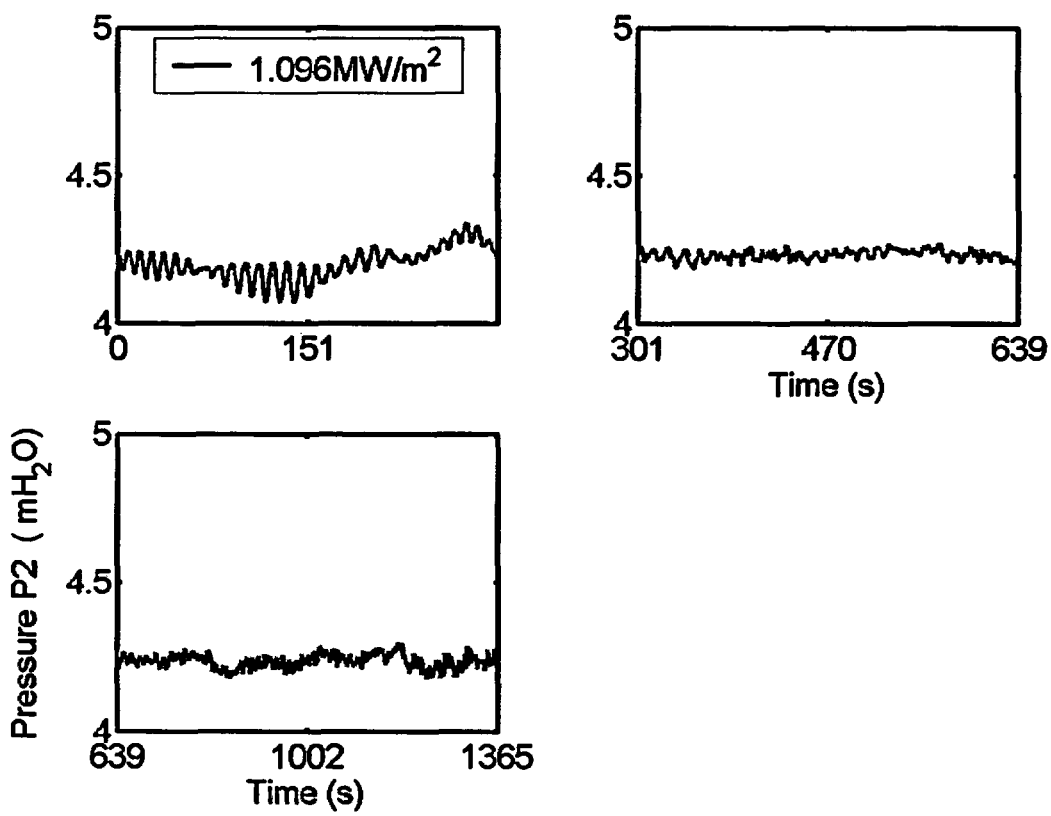

Figure A32.23. Pressure P2 at different heat fluxes.

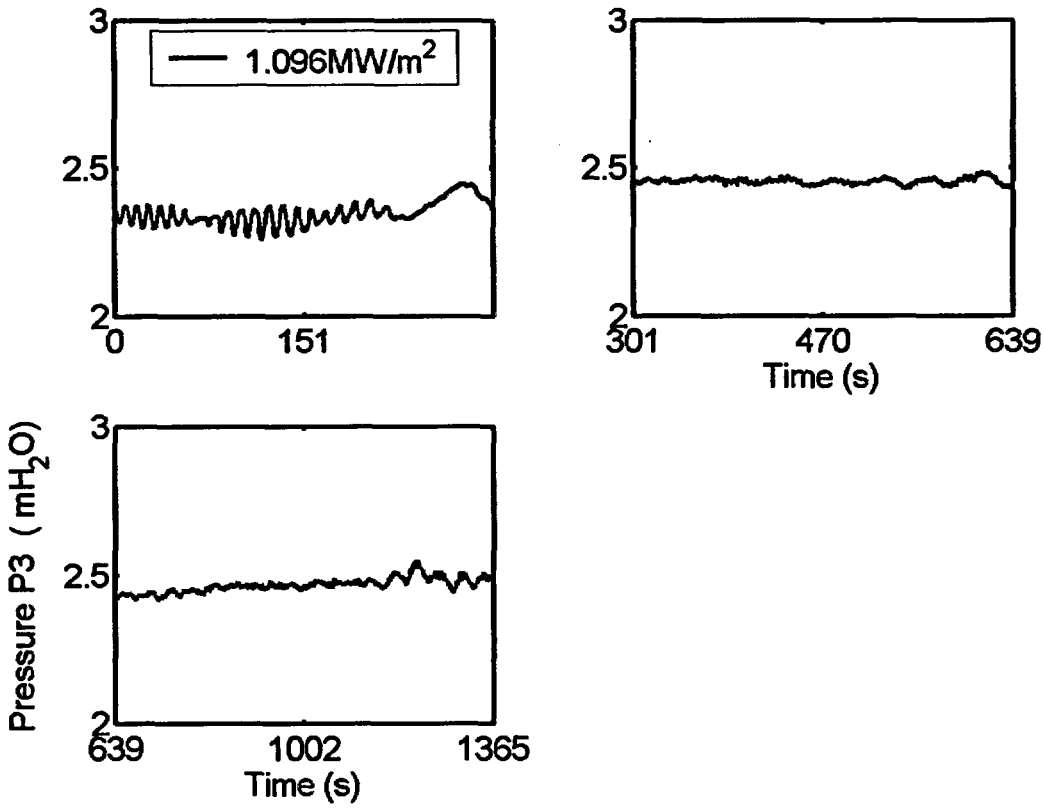

Figure A32.24. Pressure P3 at different heat fluxes.

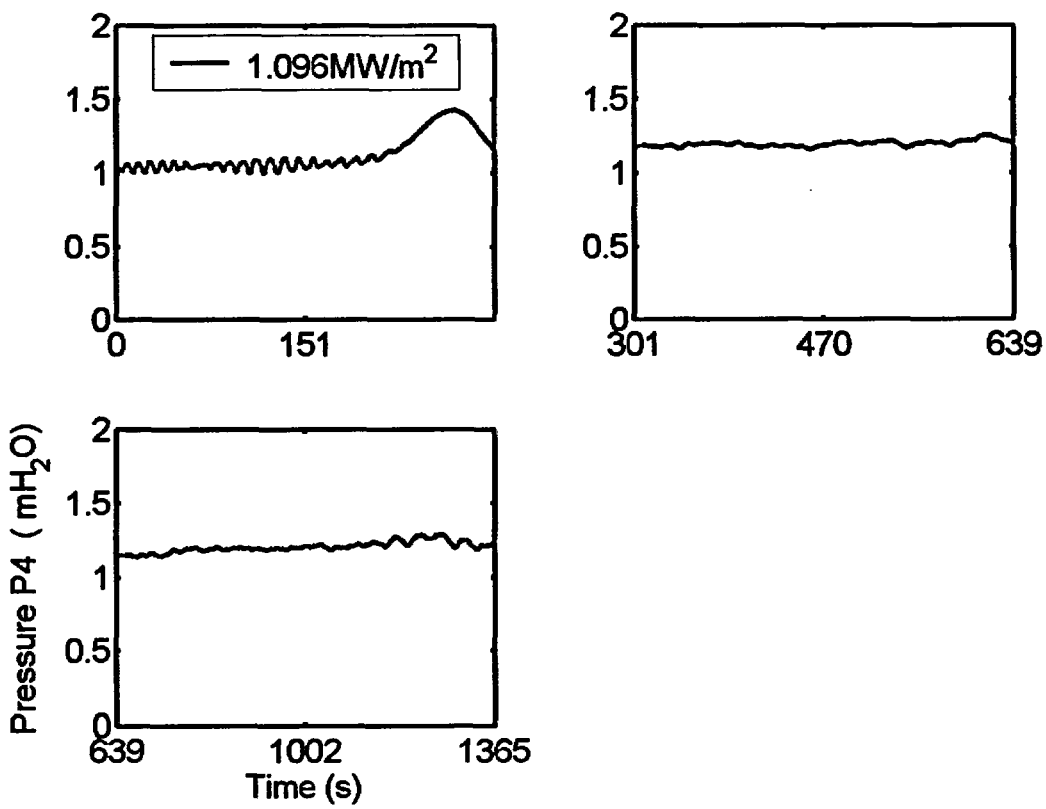

Figure A32.25. Pressure P4 at different heat fluxes.

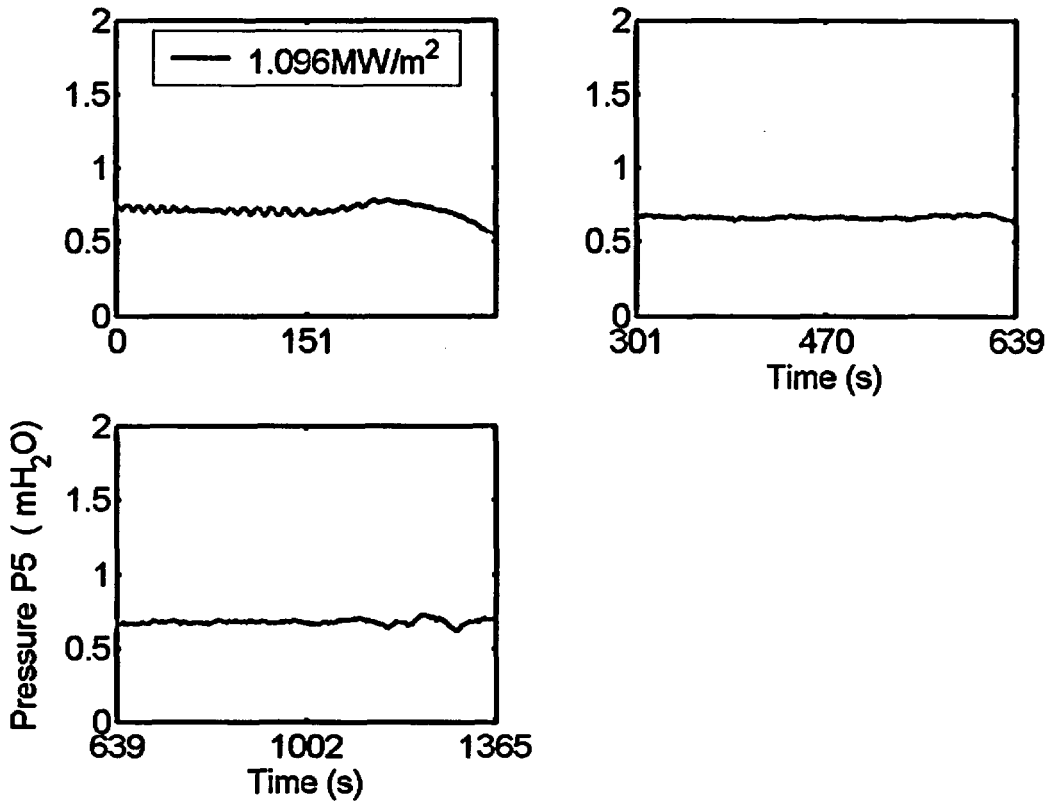

Figure A32.26. Pressure P5 at different heat fluxes.

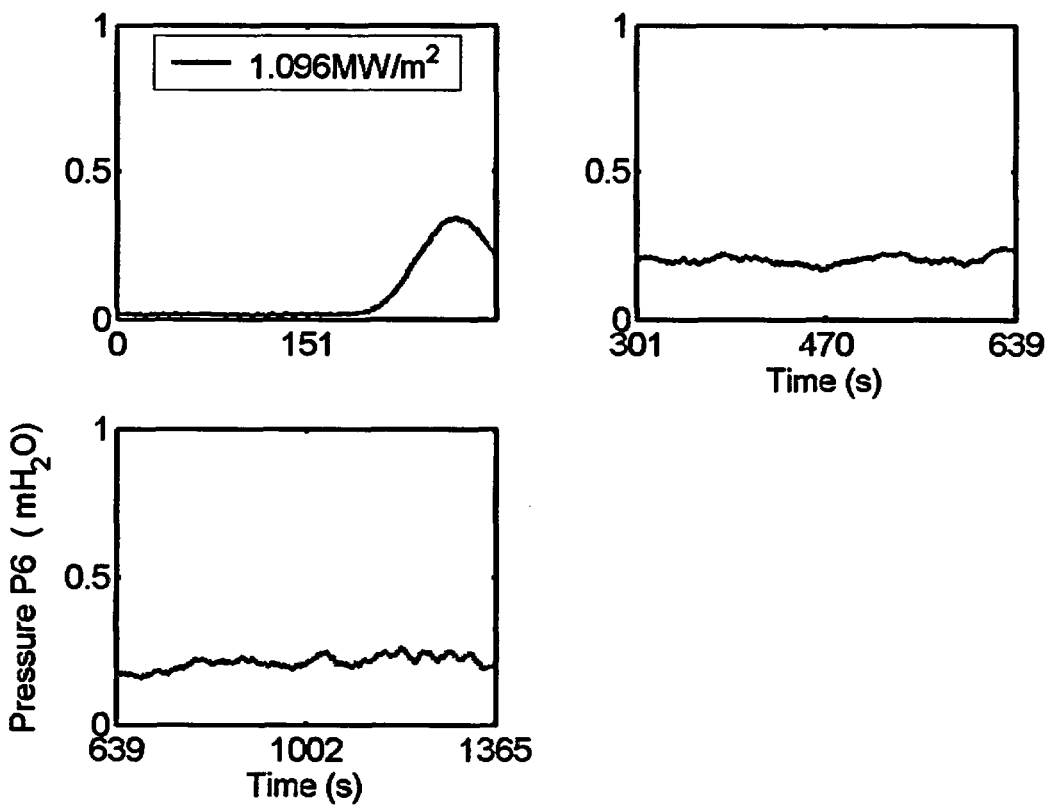

Figure A32.27. Pressure P6 at different heat fluxes.

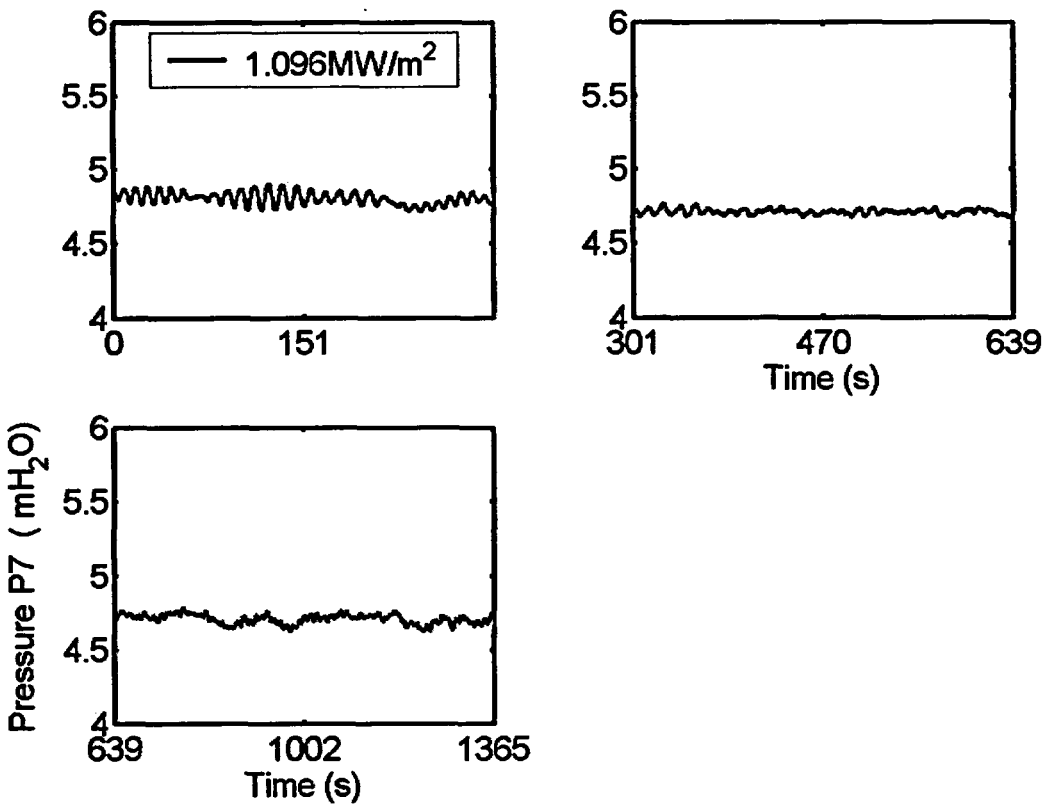

Figure A32.28. Pressure P7 at different heat fluxes.

ID #33

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
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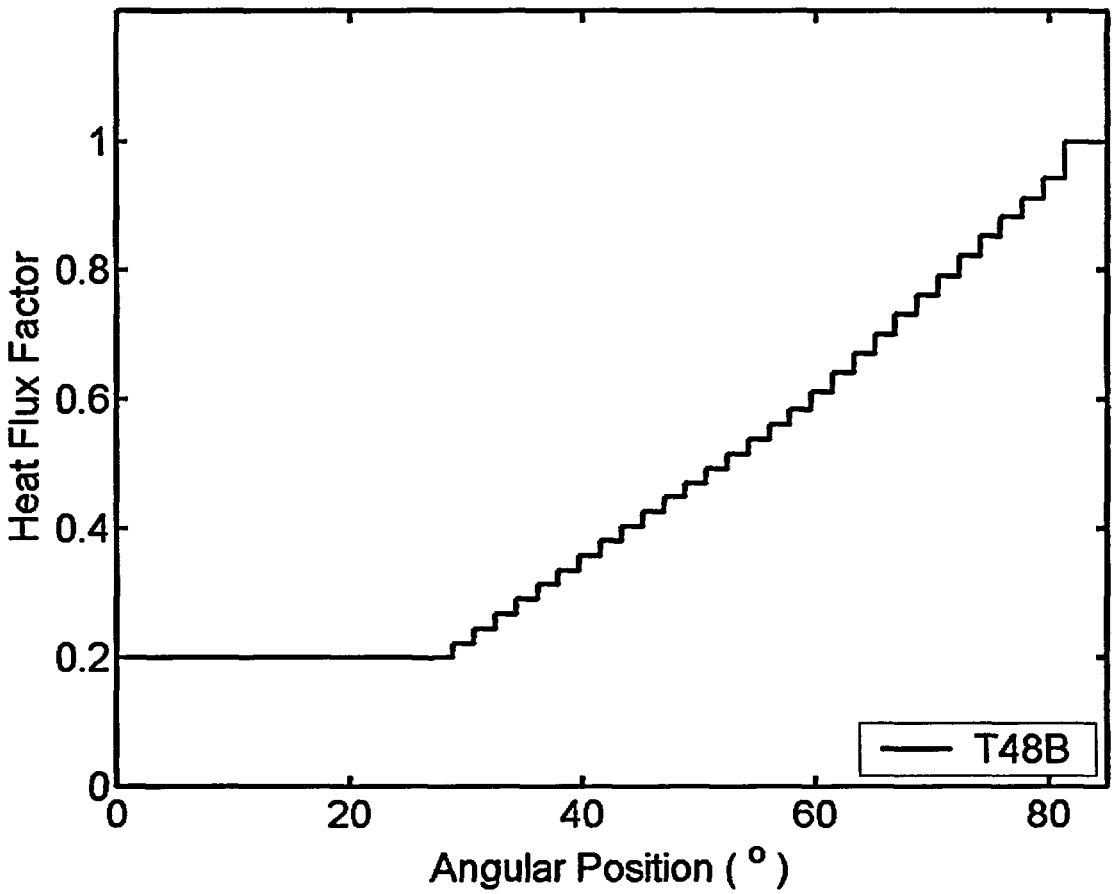

Figure A33.1. Power shape.

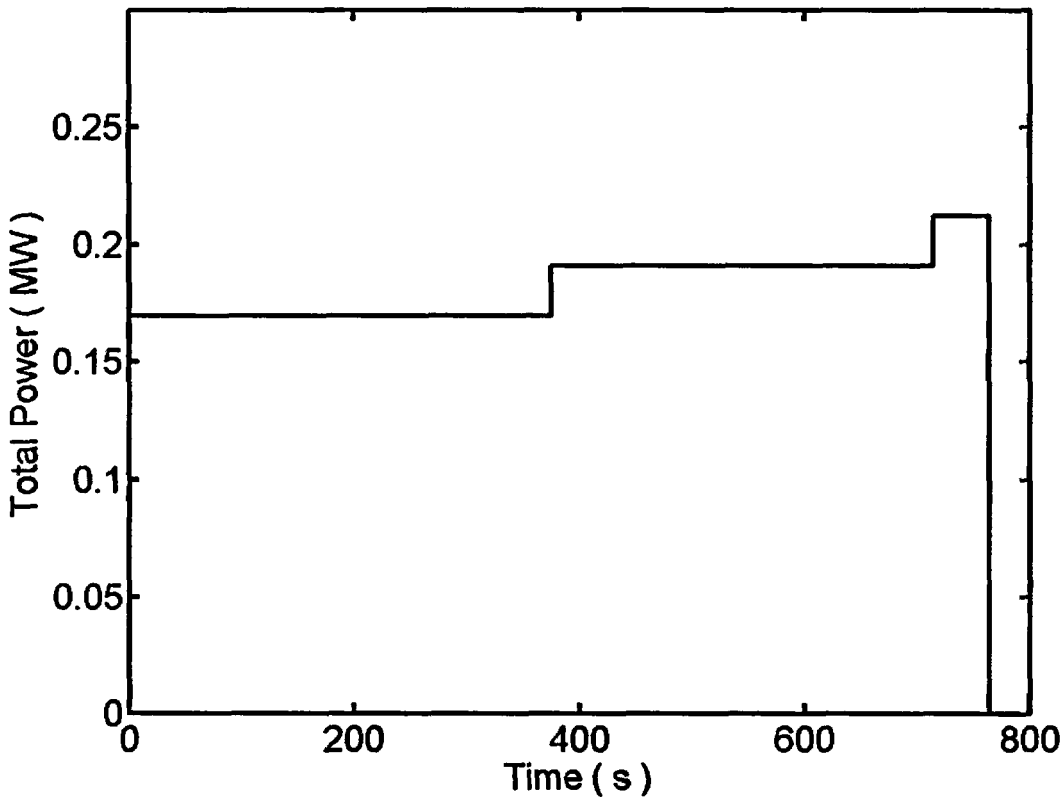

Figure A33.2. Total input power history.

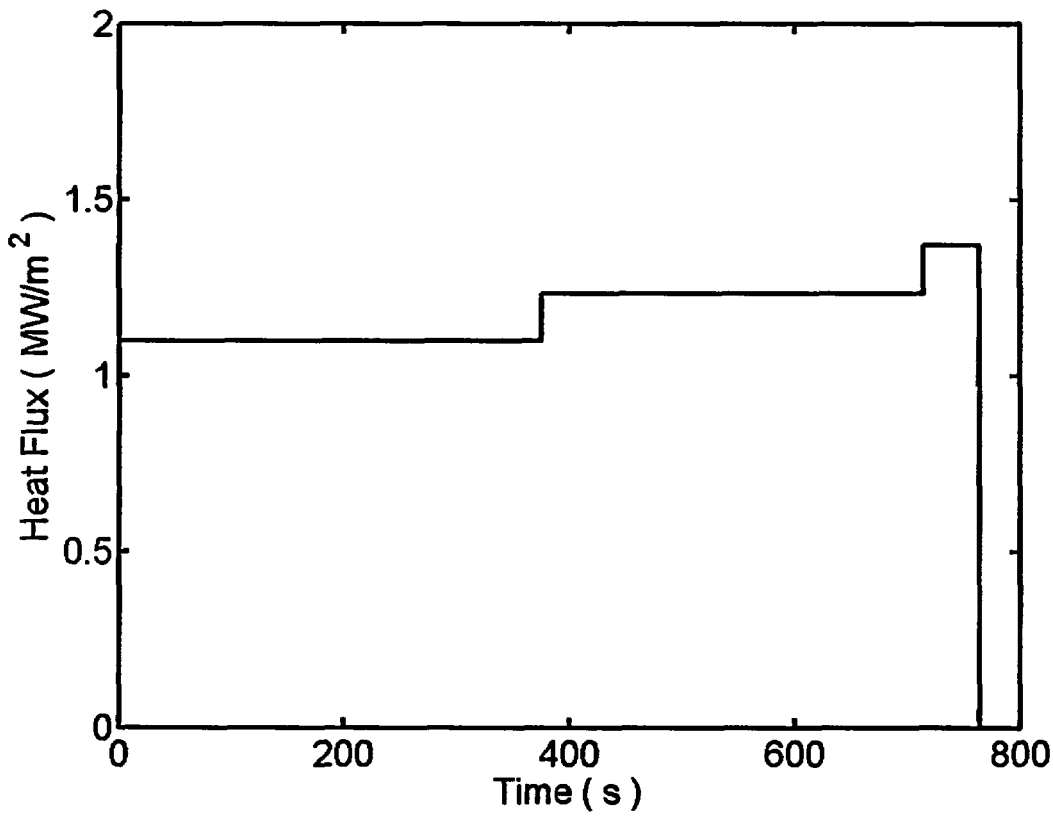

Figure A33.3. Heat flux history.

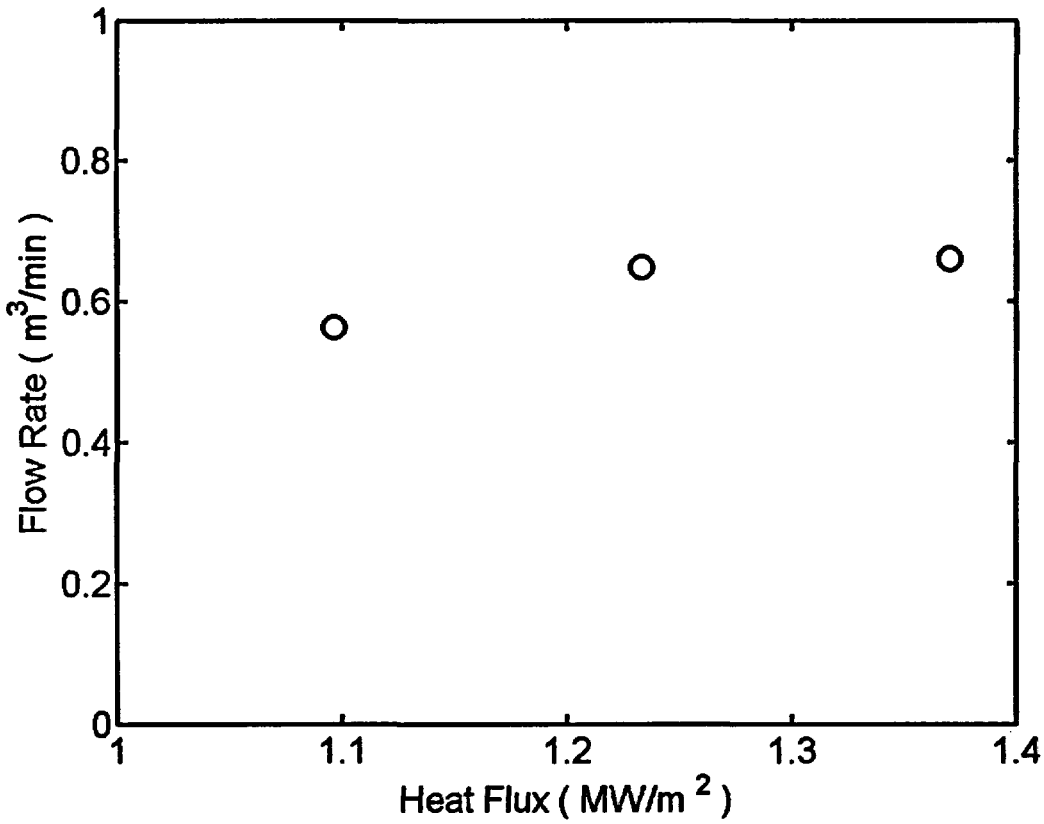

Figure A33.4. Flow rate vs. heat fluxes.

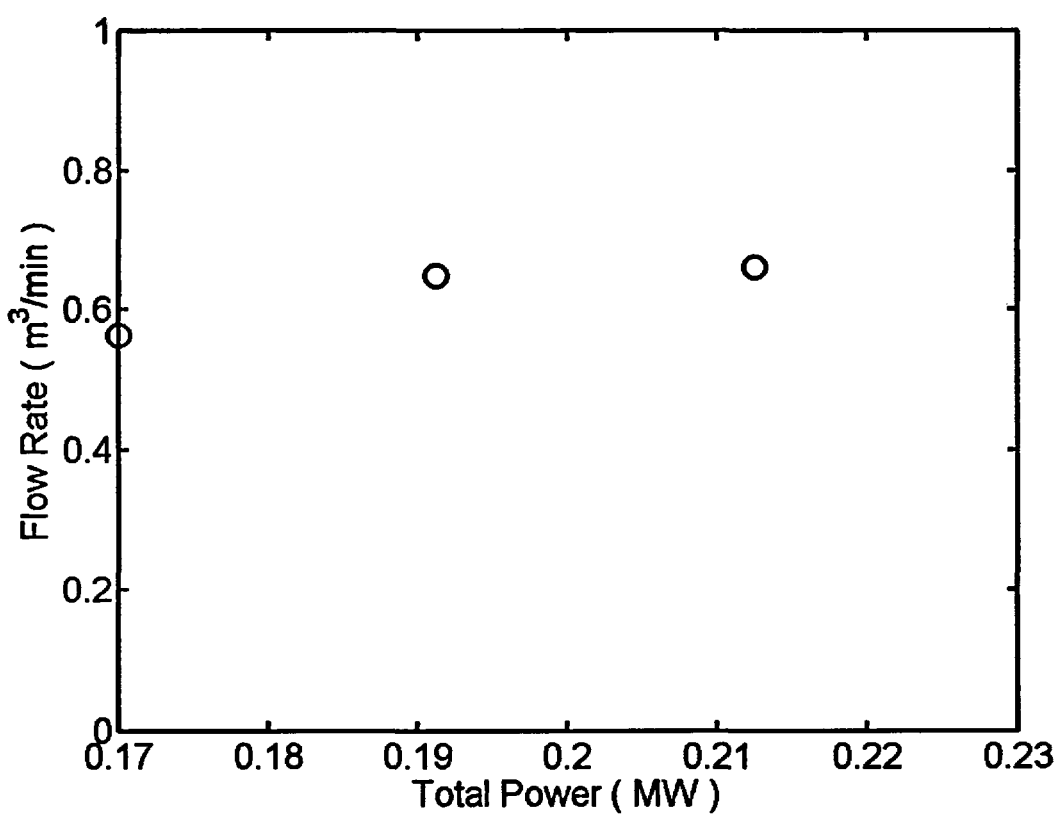

Figure A33.5. Flow rate vs. total input power.

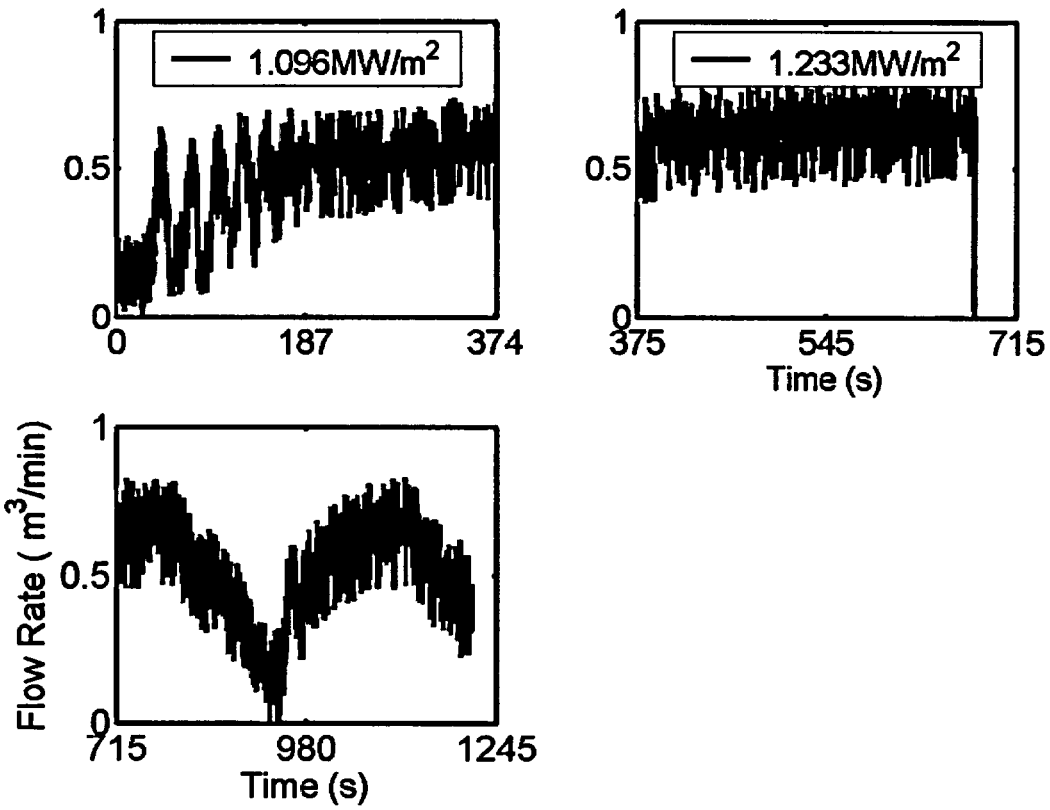

Figure A33.6. Flow rates at different heat fluxes.

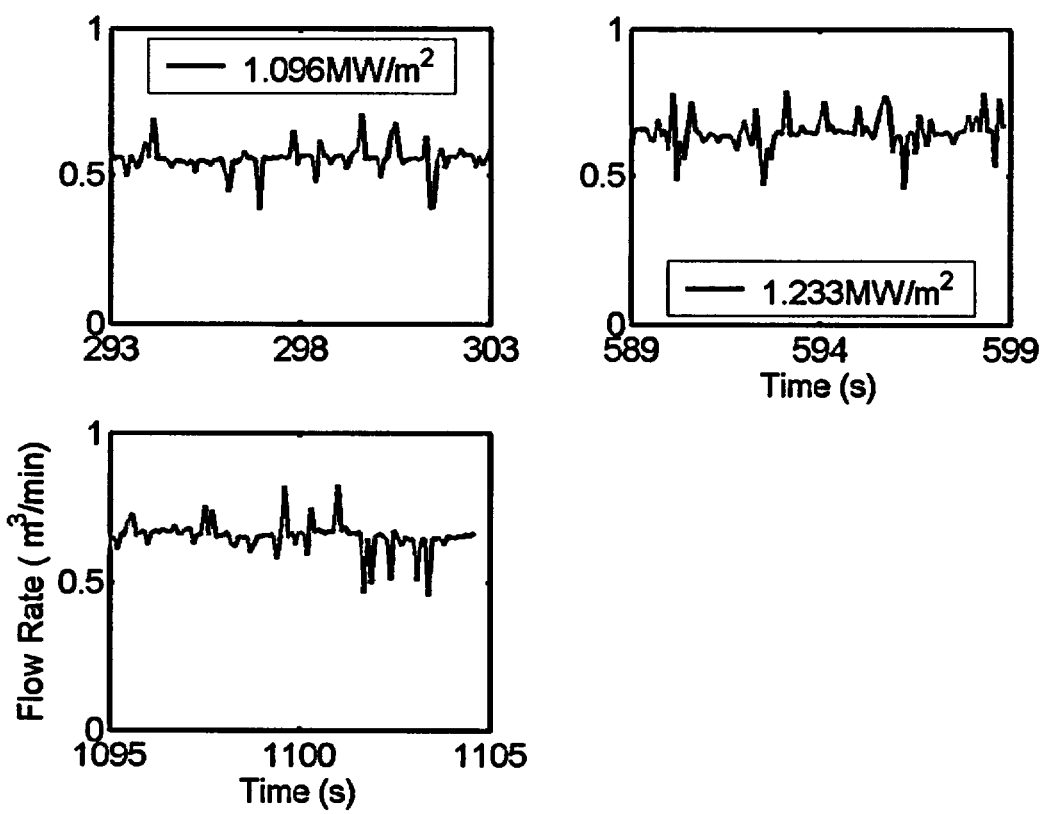

Figure A33.7. Flow rates at different heat fluxes at selected time intervals.

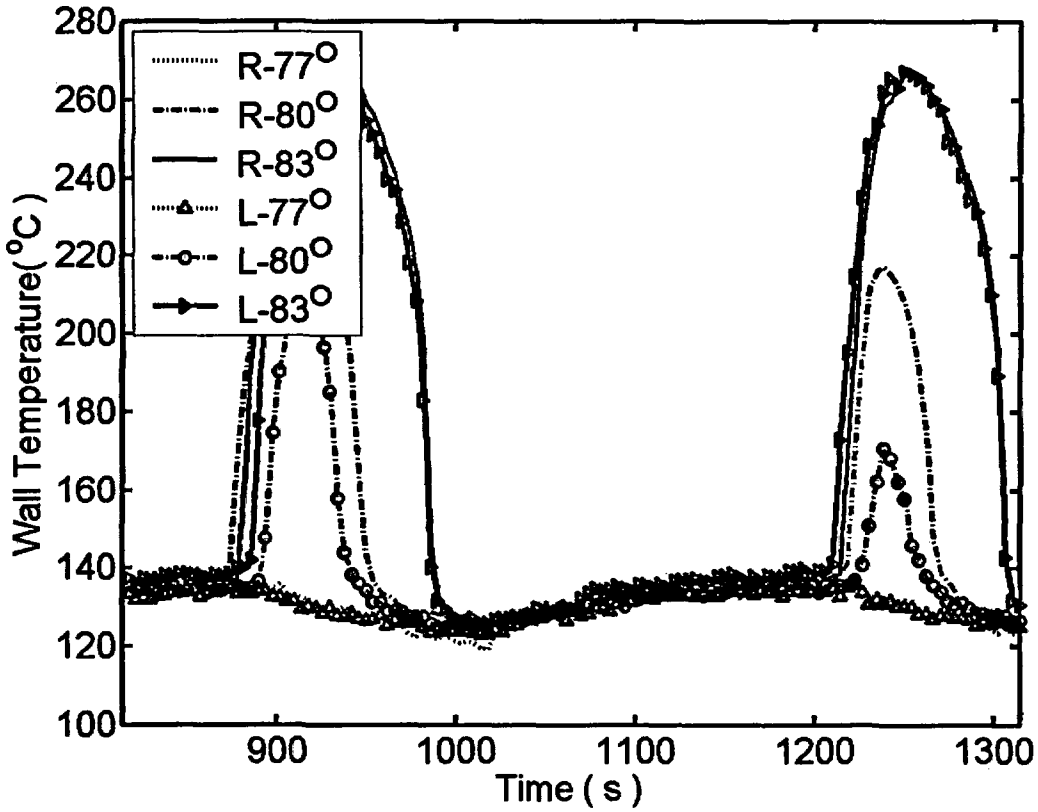

Figure A33.8. Temperature history at CHF.

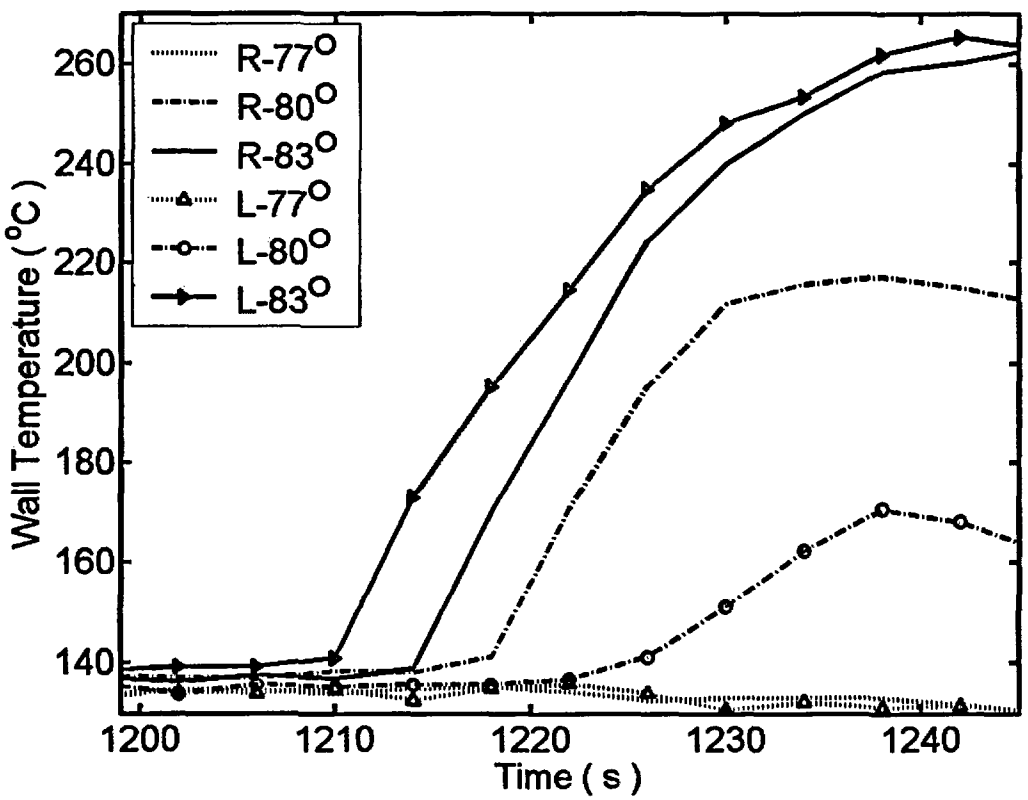

Figure A33.9. Temperature history at CHF in detail.

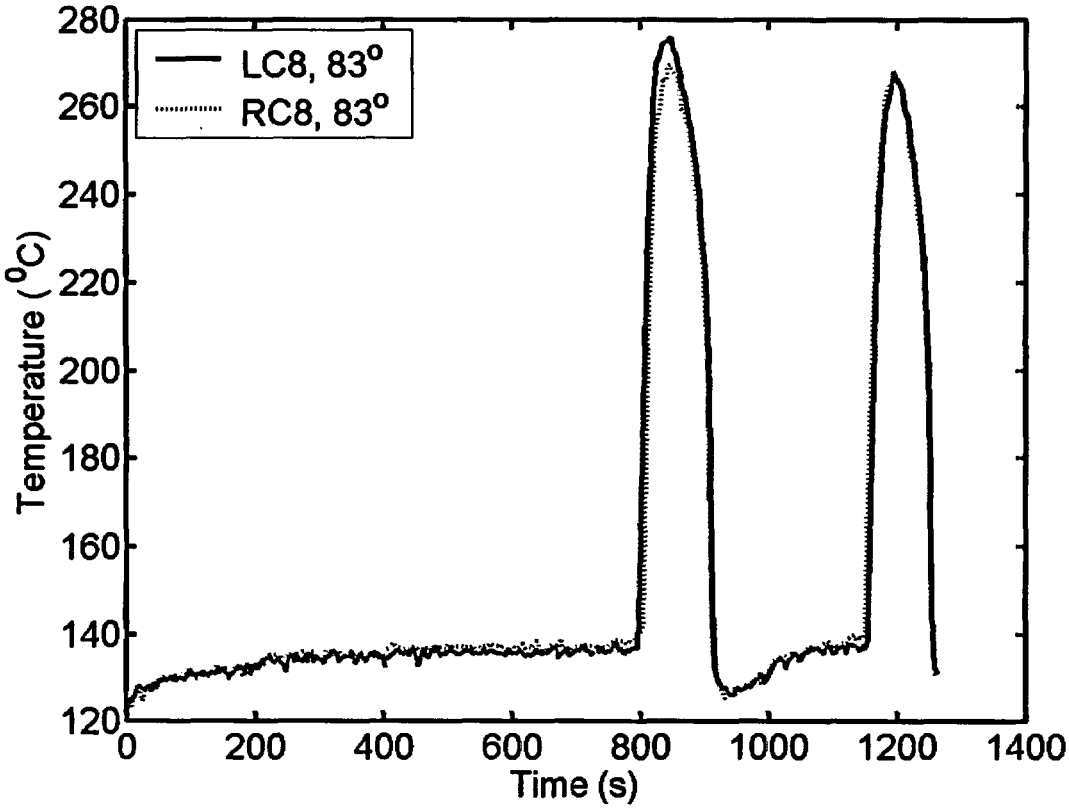

Figure A33.10. Wall temperature history measured by two thermocouples LC8 and RC8.

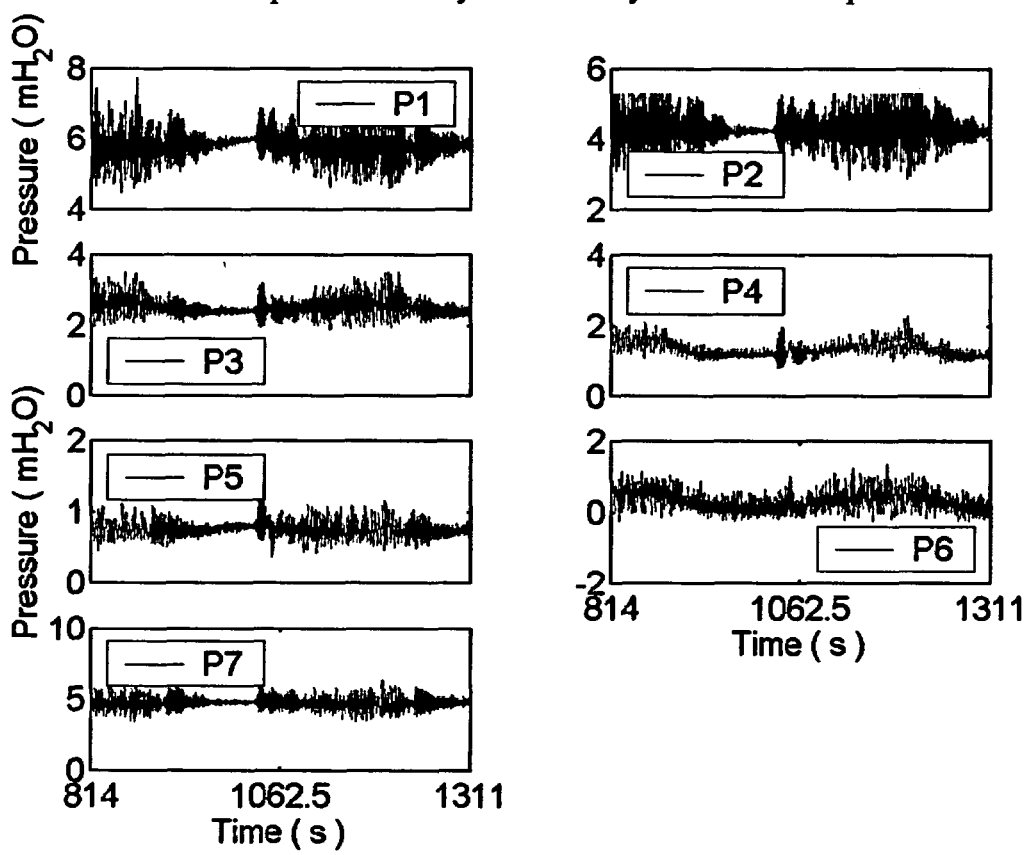

Figure A33.11. Pressure transducer data for time interval 814 to 1311 s.

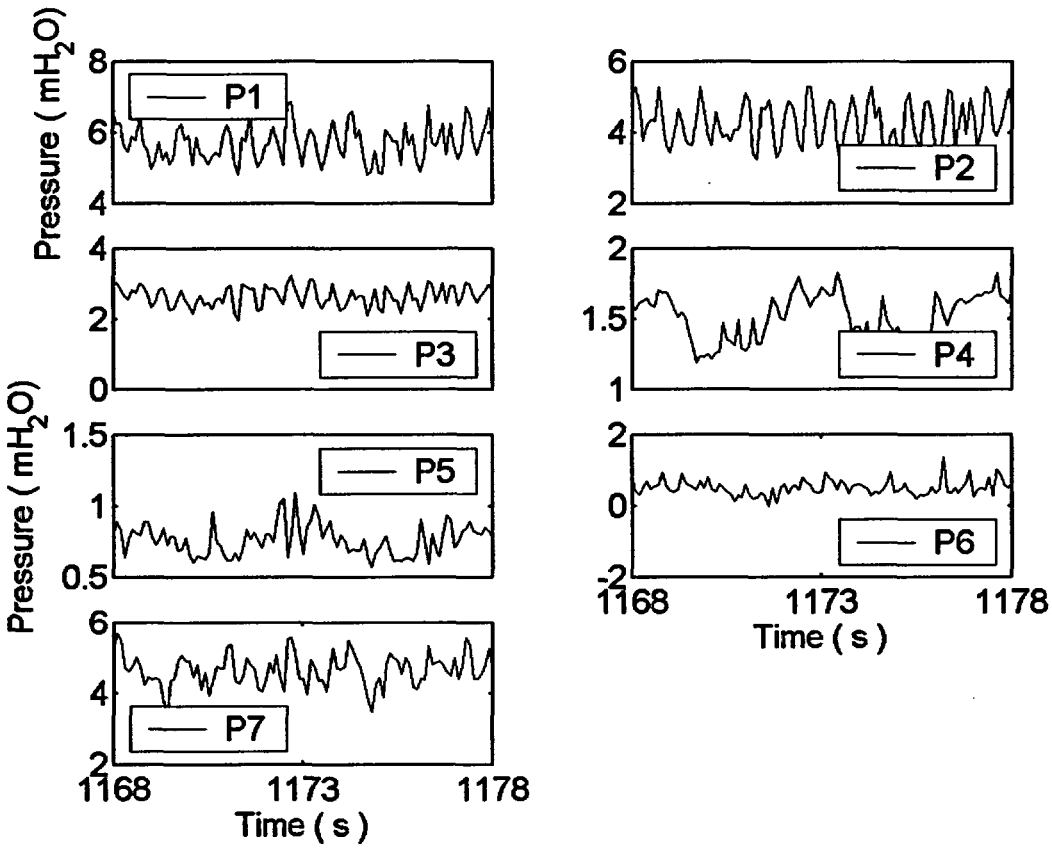

Figure A33.12. Pressure data in detail at q = 1.370 MW/m^2.

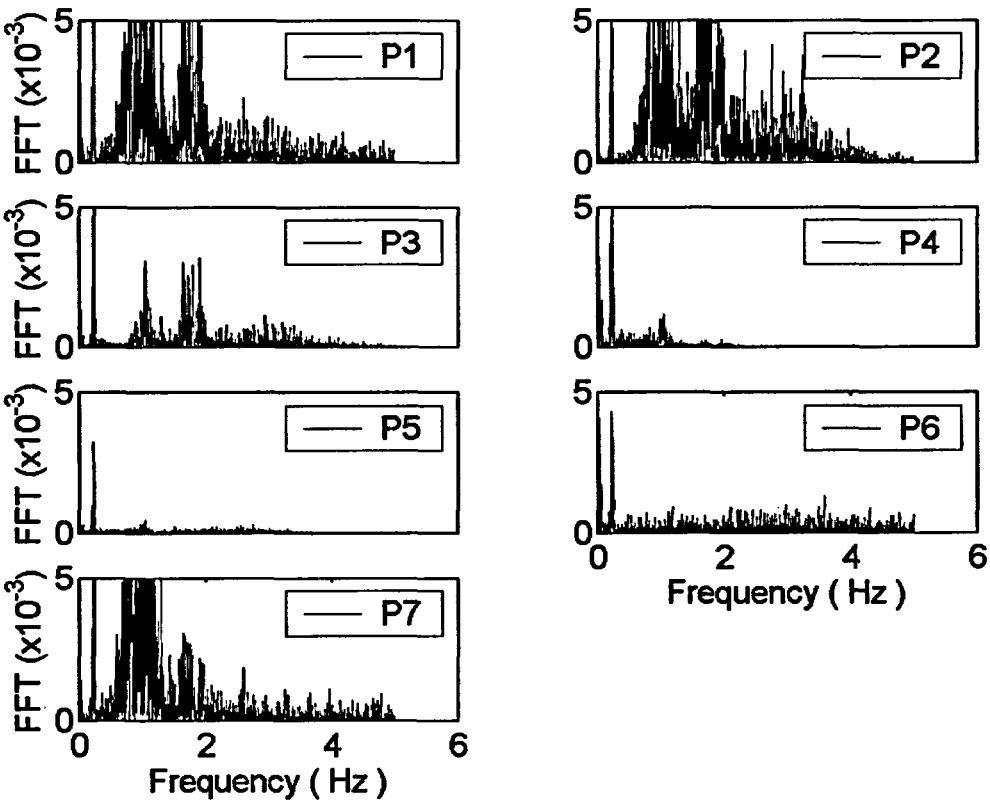

Figure A33.13. FFT of pressure time series for time interval 814 to 1311 s.

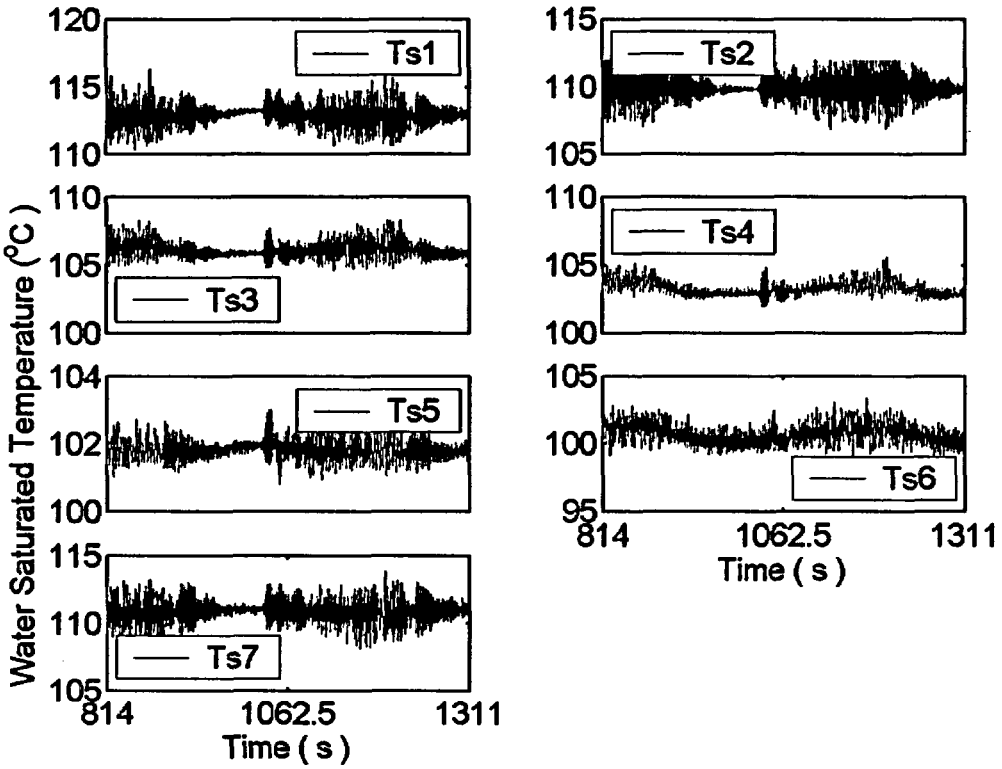

Figure A33.14. Water saturation temperature calculated from local pressure data for time interval 814 to 1311 s.

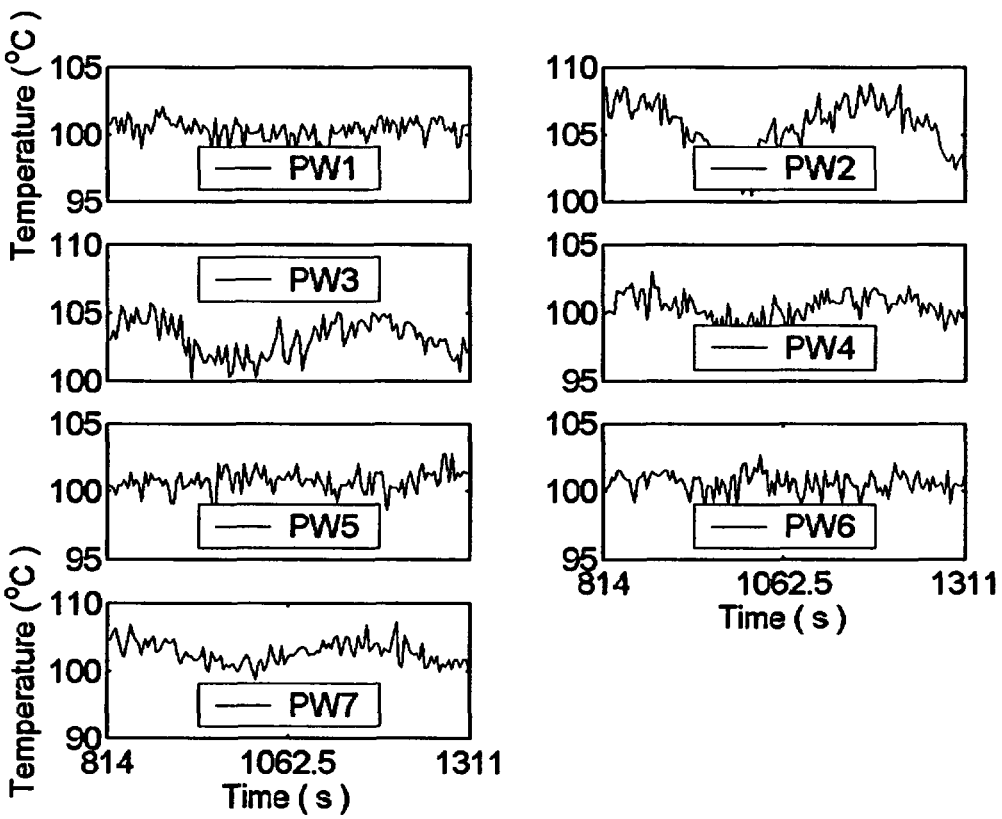

Figure A33.15. Water temperature measured at location of pressure transducer for time interval 814 to 1311 s.

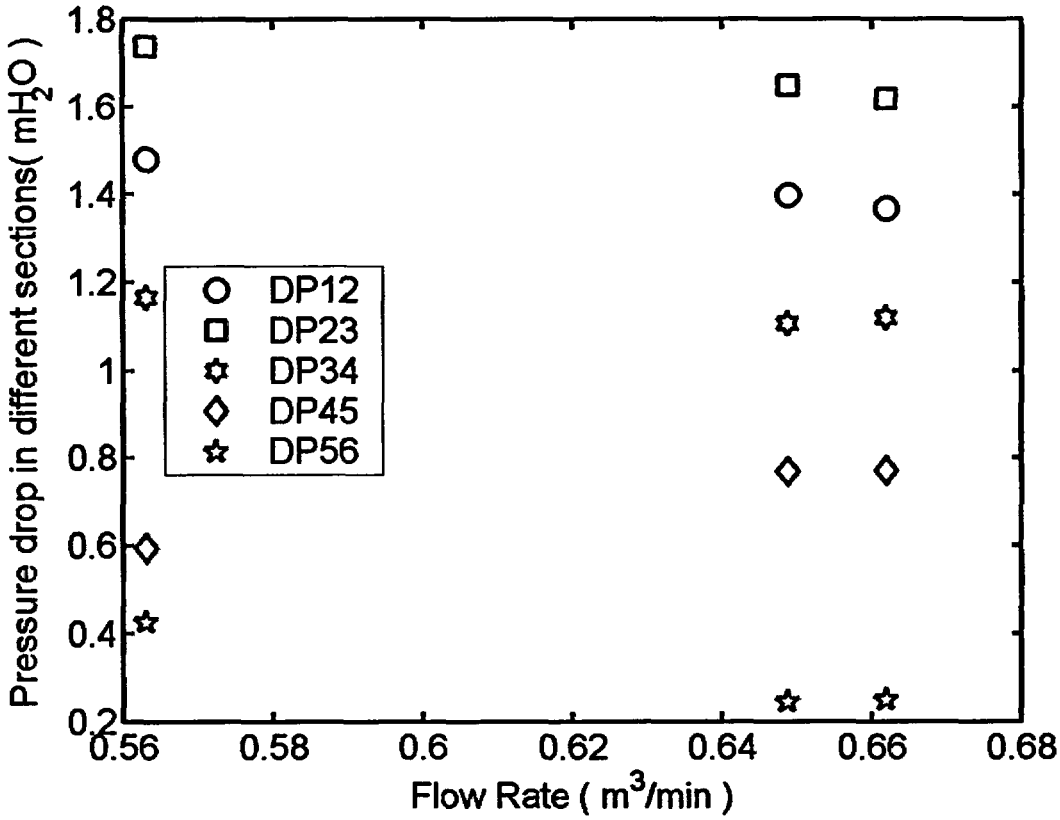

Figure A33.16. Pressure drop vs. flow rate at different heat fluxes.

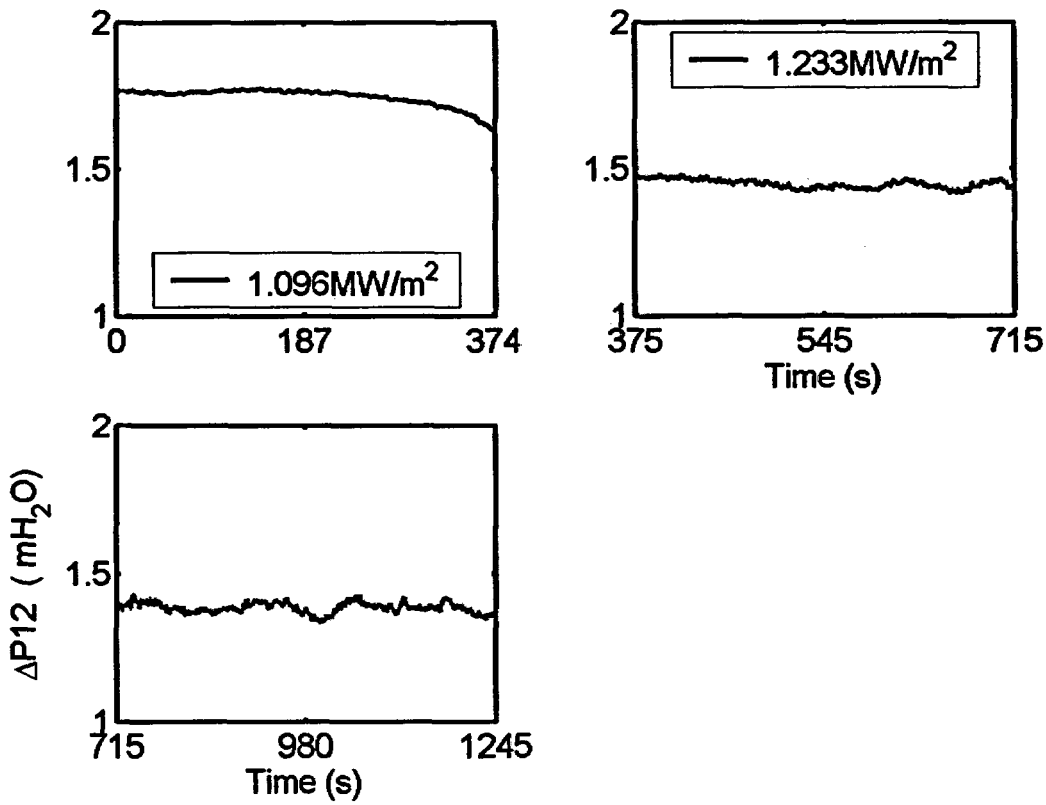

Figure A33.17. Differential Pressure ΔP12 at different heat fluxes.

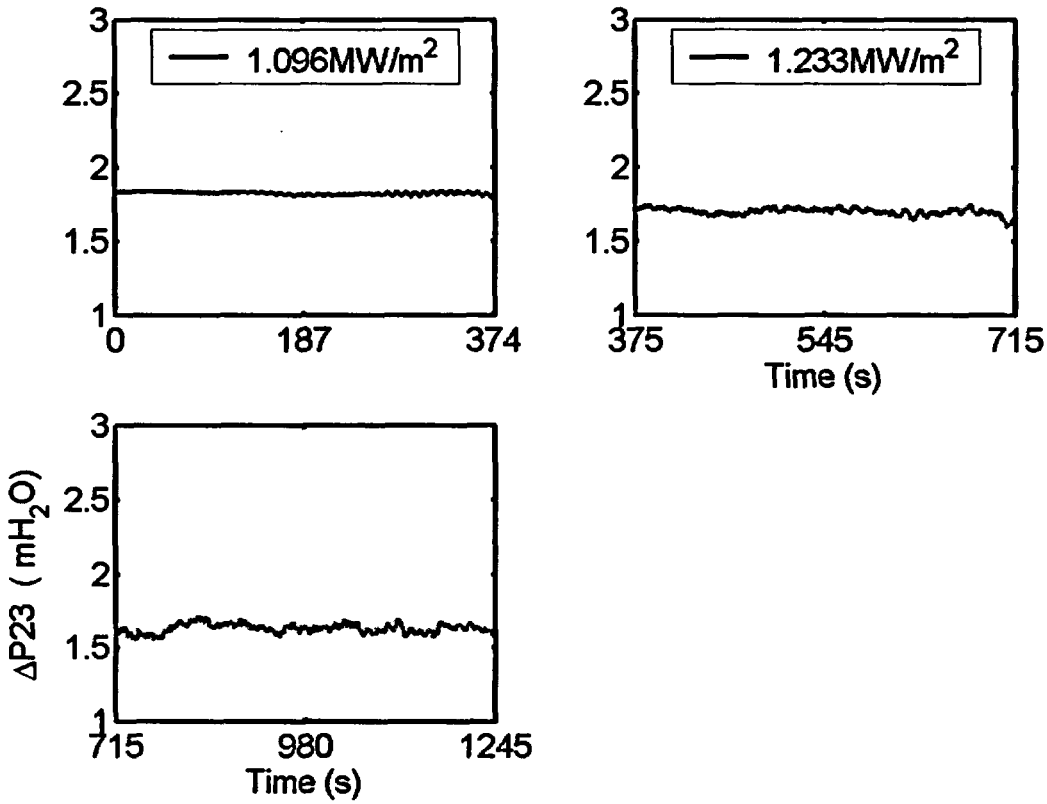

Figure A33.18. Differential Pressure ΔP23 at different heat fluxes.

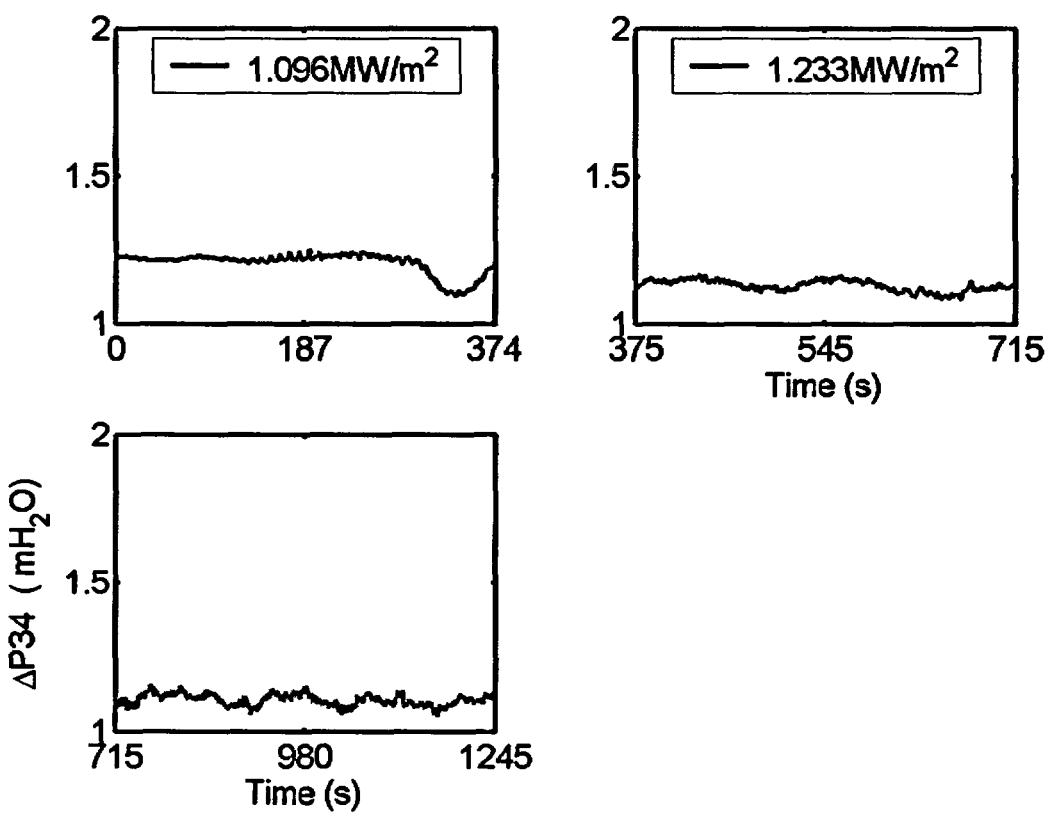

Figure A33.19. Differential Pressure ΔP34 at different heat fluxes.

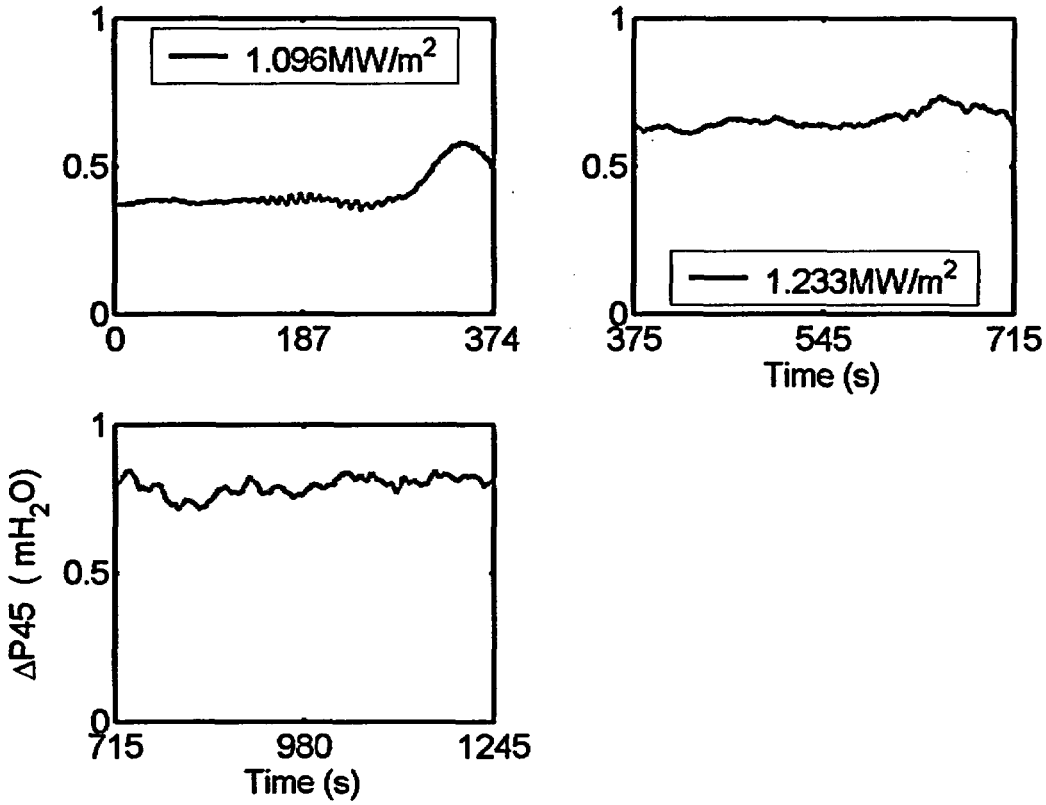

Figure A33.20. Differential Pressure ΔP45 at different heat fluxes.

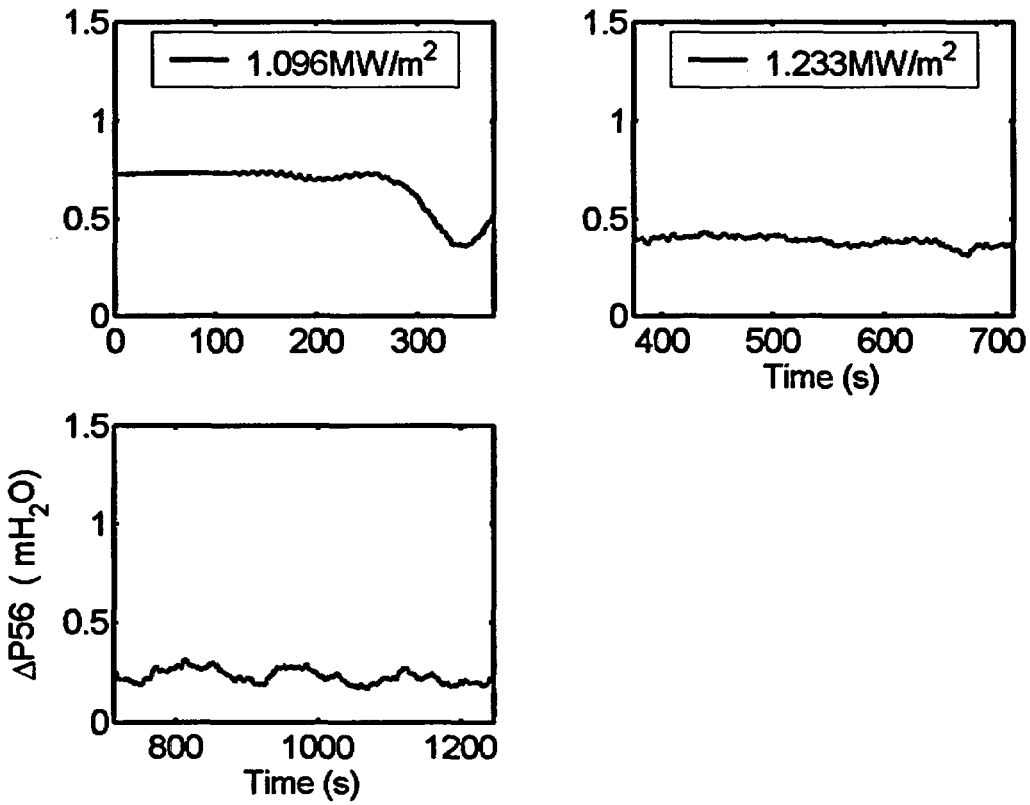

Figure A33.21. Differential Pressure ΔP56 at different heat fluxes.

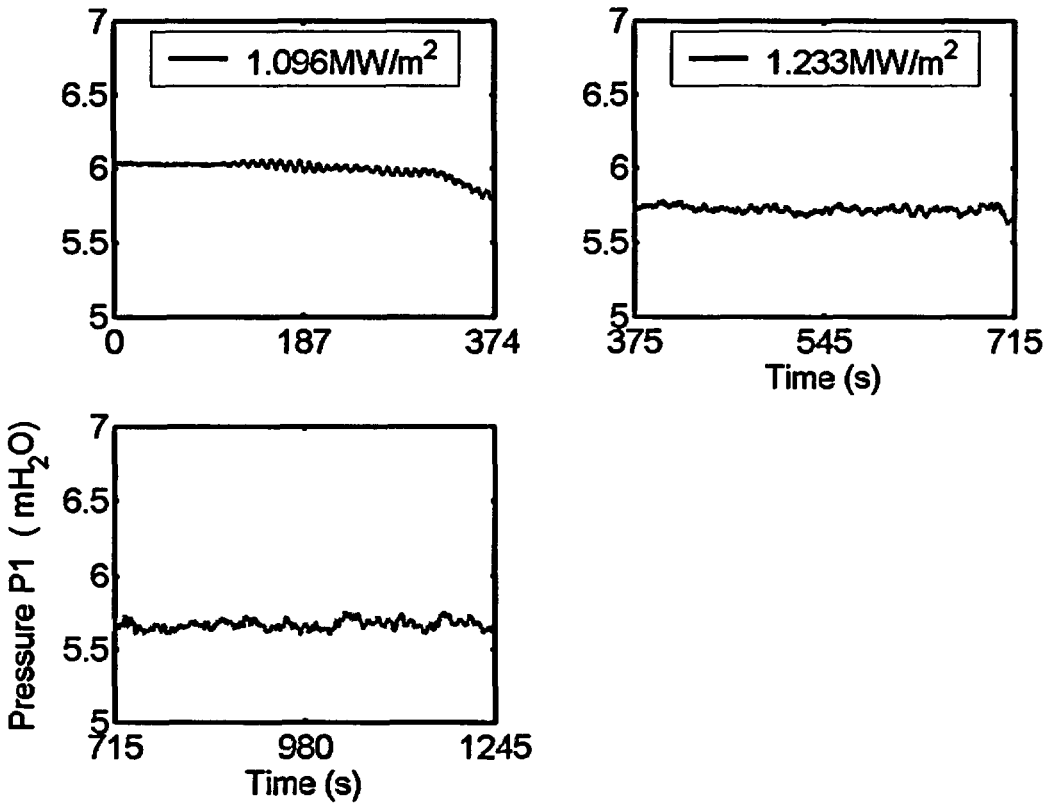

Figure A33.22. Pressure P1 at different heat fluxes.

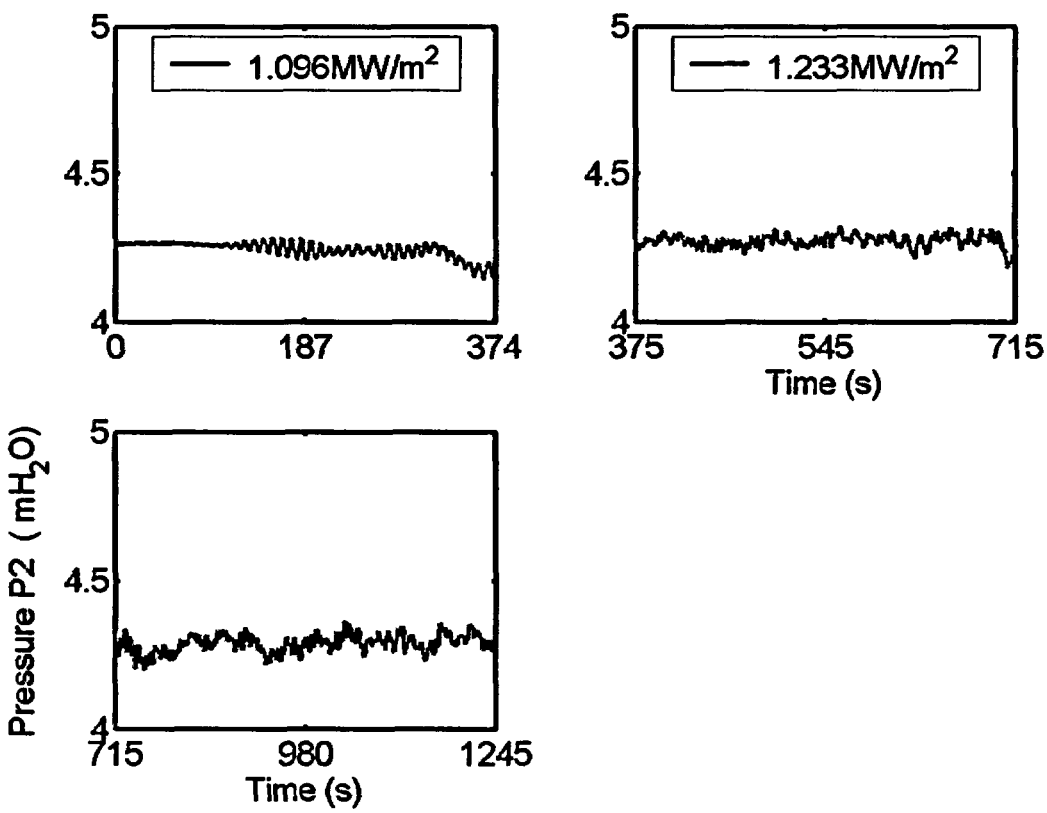

Figure A33.23. Pressure P2 at different heat fluxes.

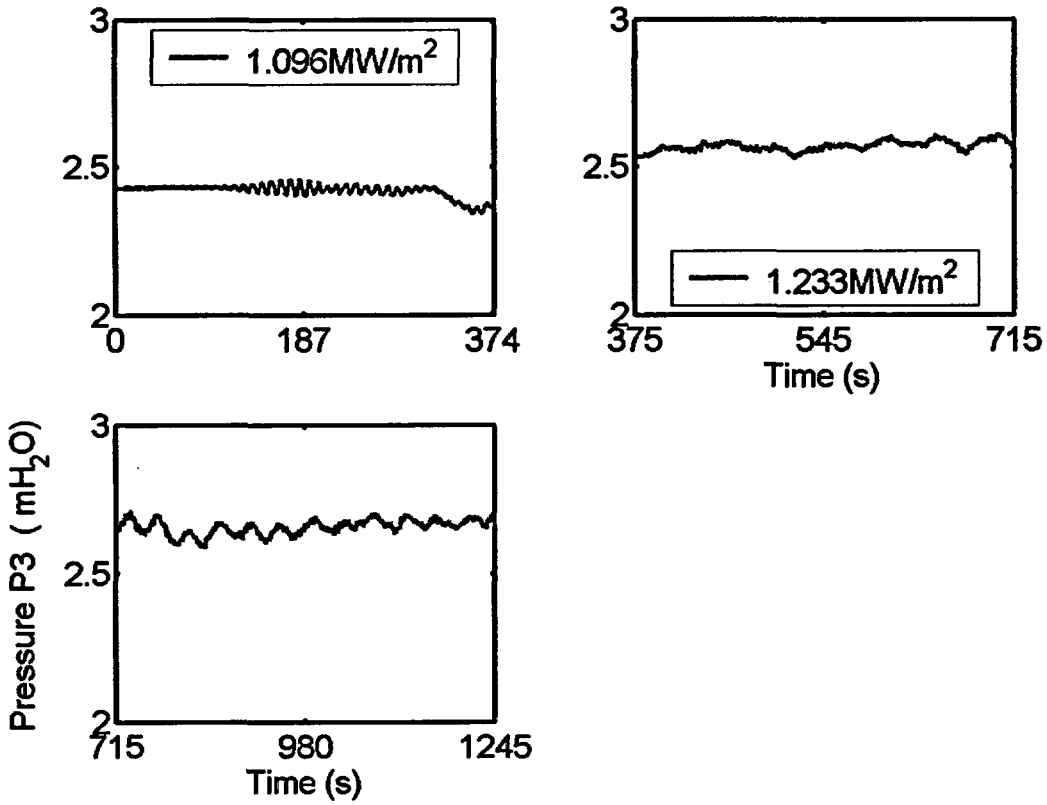

Figure A33.24. Pressure P3 at different heat fluxes.

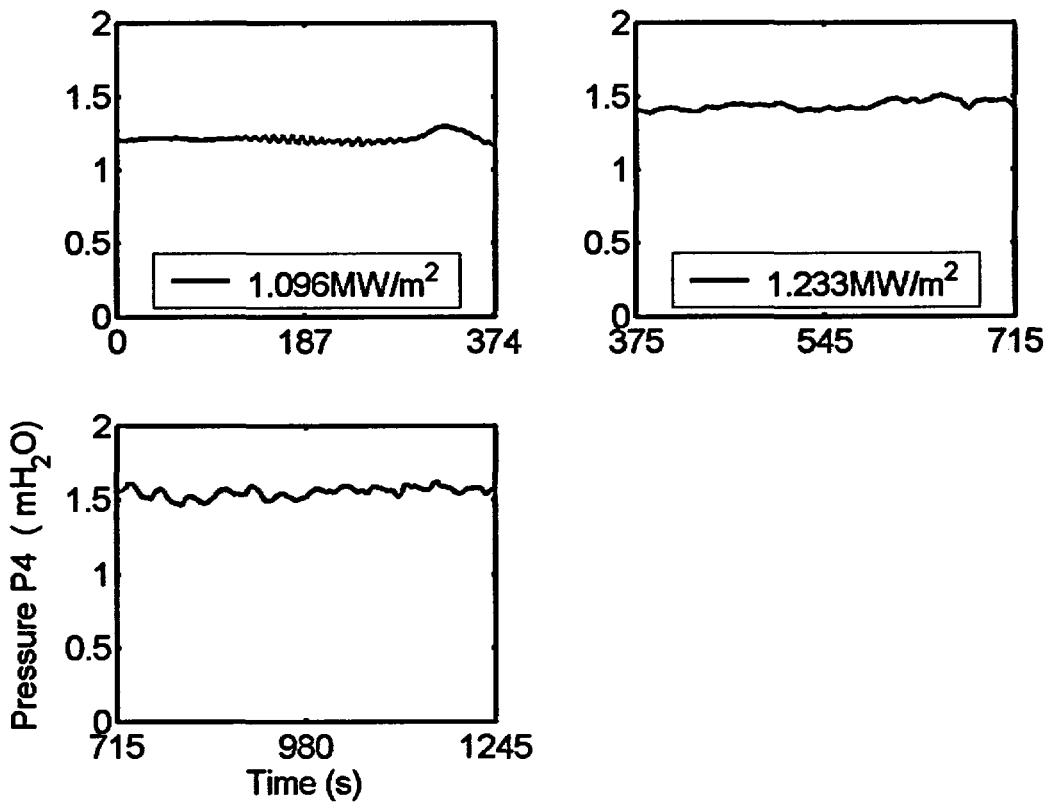

Figure A33.25. Pressure P4 at different heat fluxes.

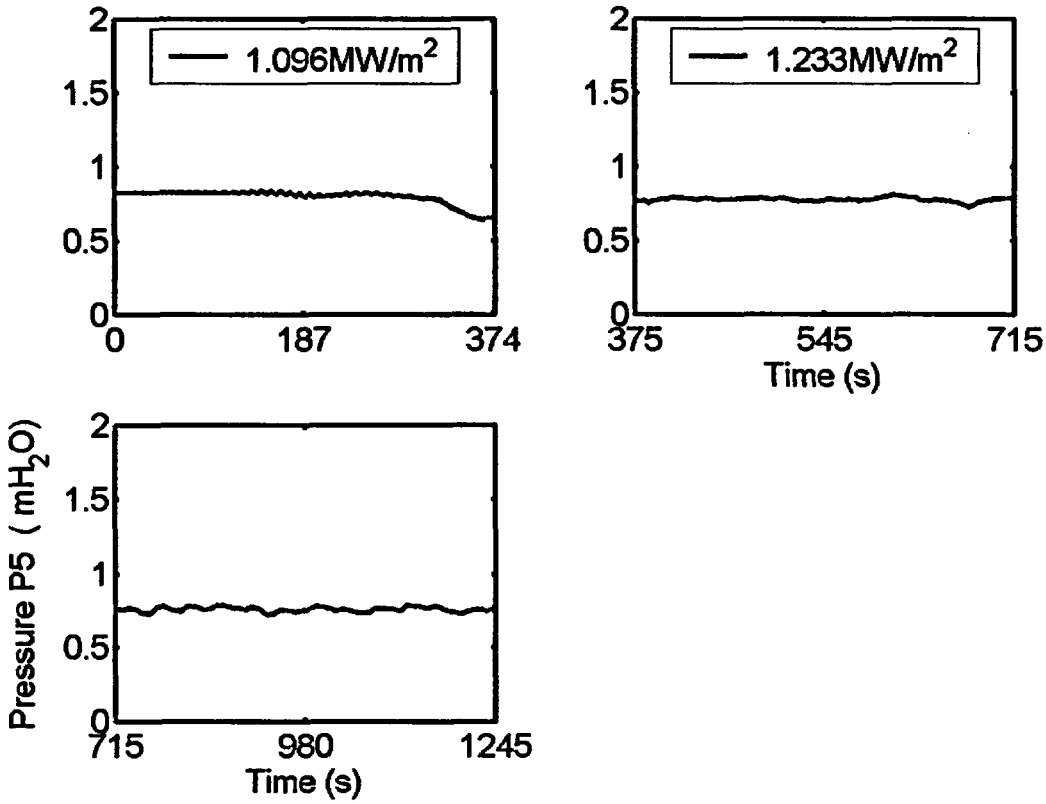

Figure A33.26. Pressure P5 at different heat fluxes.

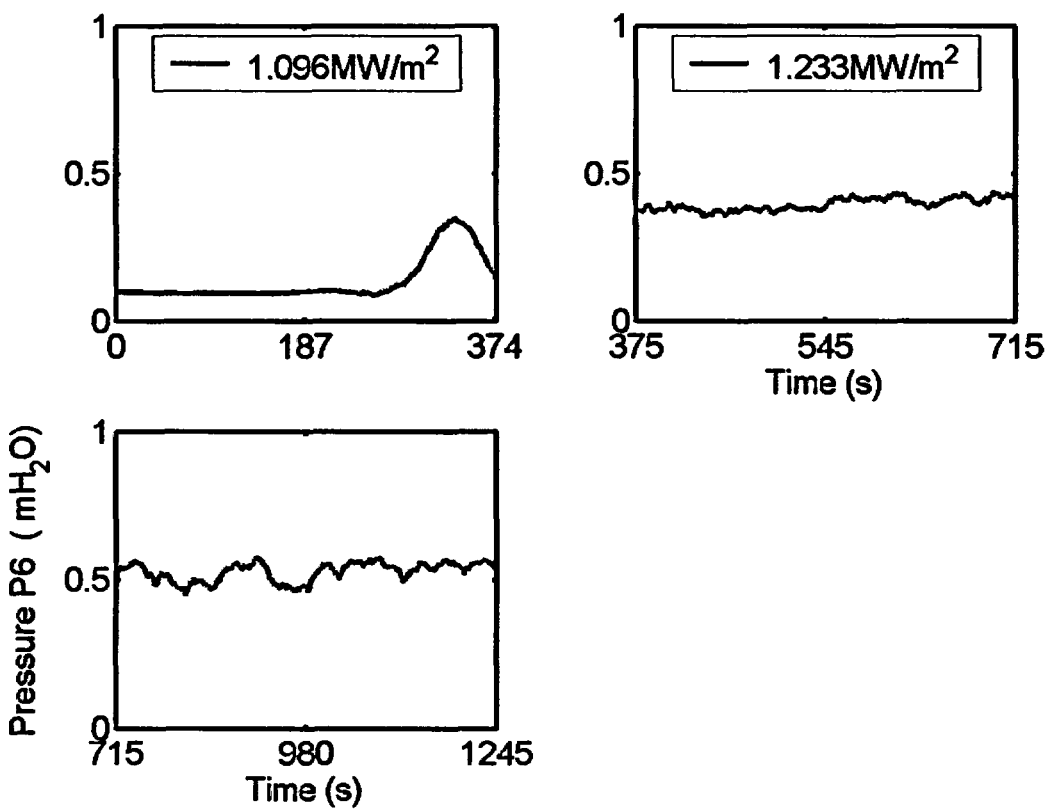

Figure A33.27. Pressure P6 at different heat fluxes.

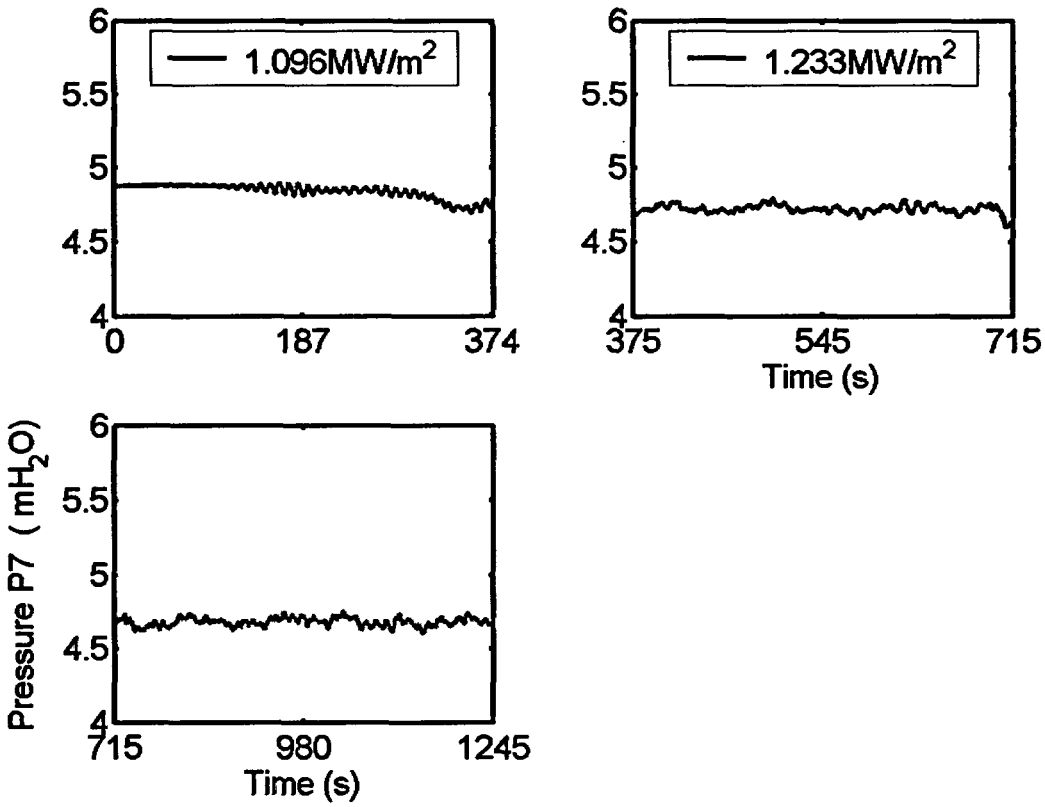

Figure A33.28. Pressure P7 at different heat fluxes.

ID #34

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T48B	1370	LC8	83	C	01/03/2003/12:20

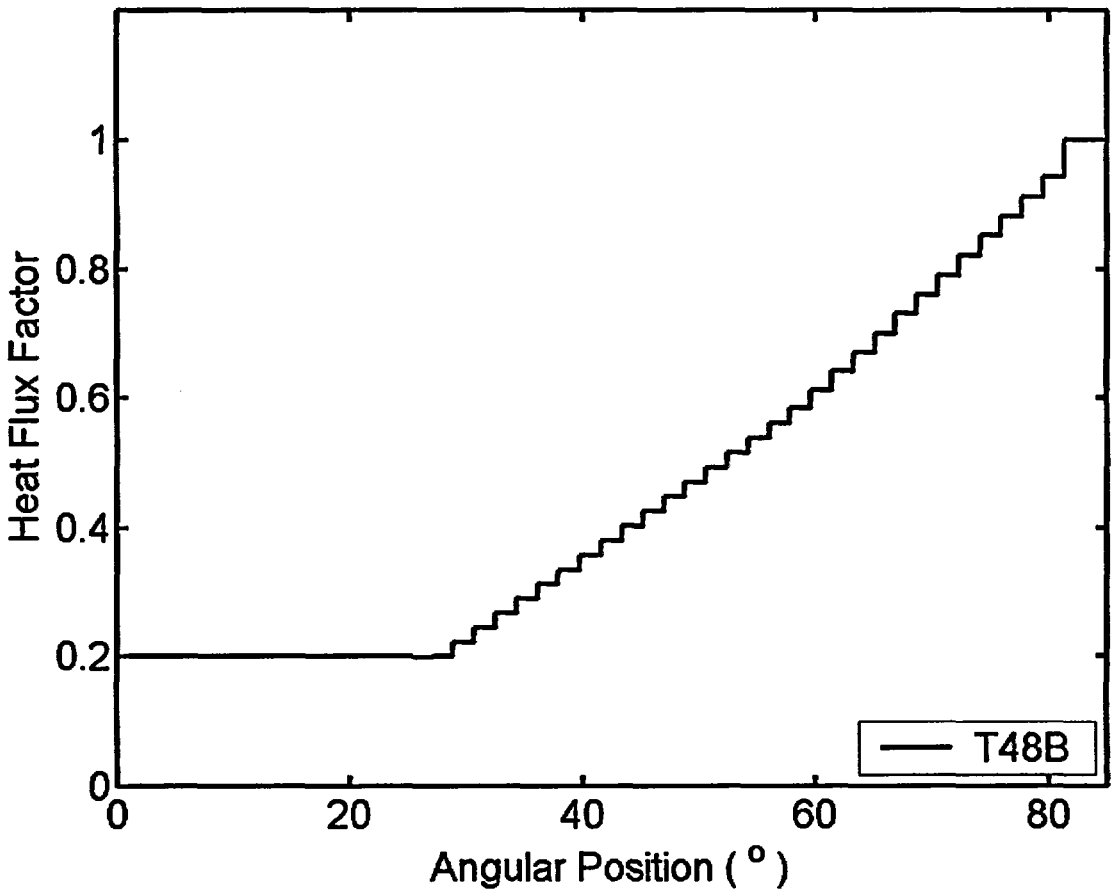

Figure A34.1. Power shape.

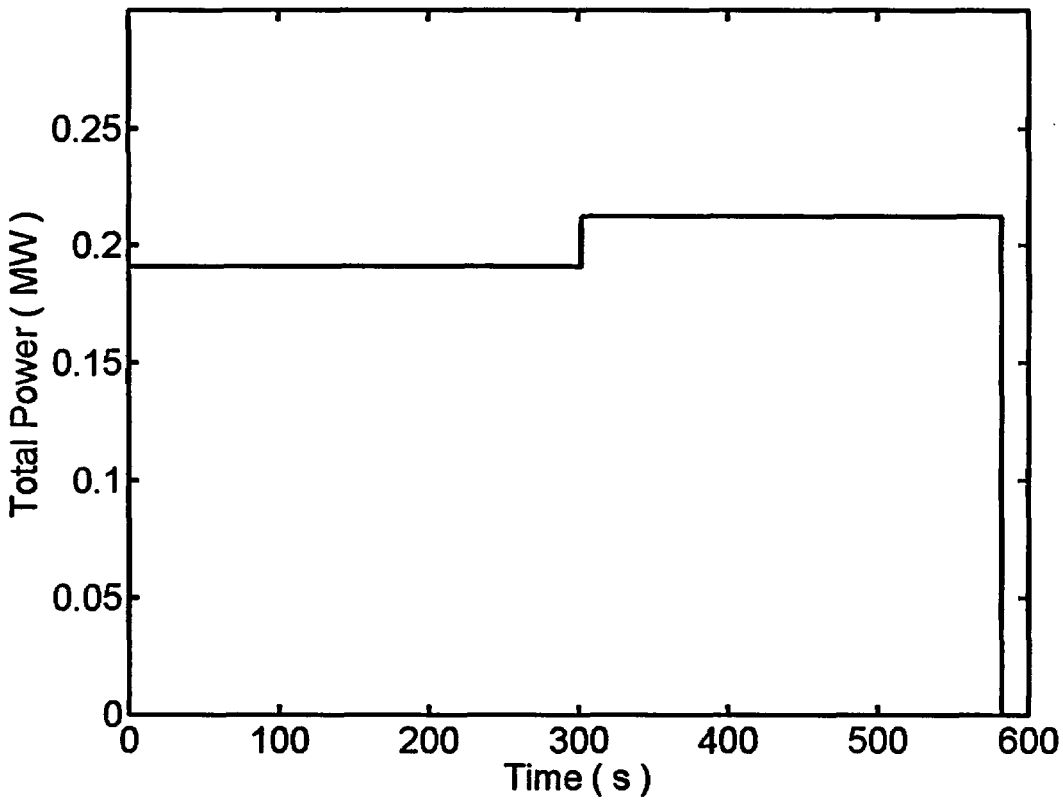

Figure A34.2. Total input power history.

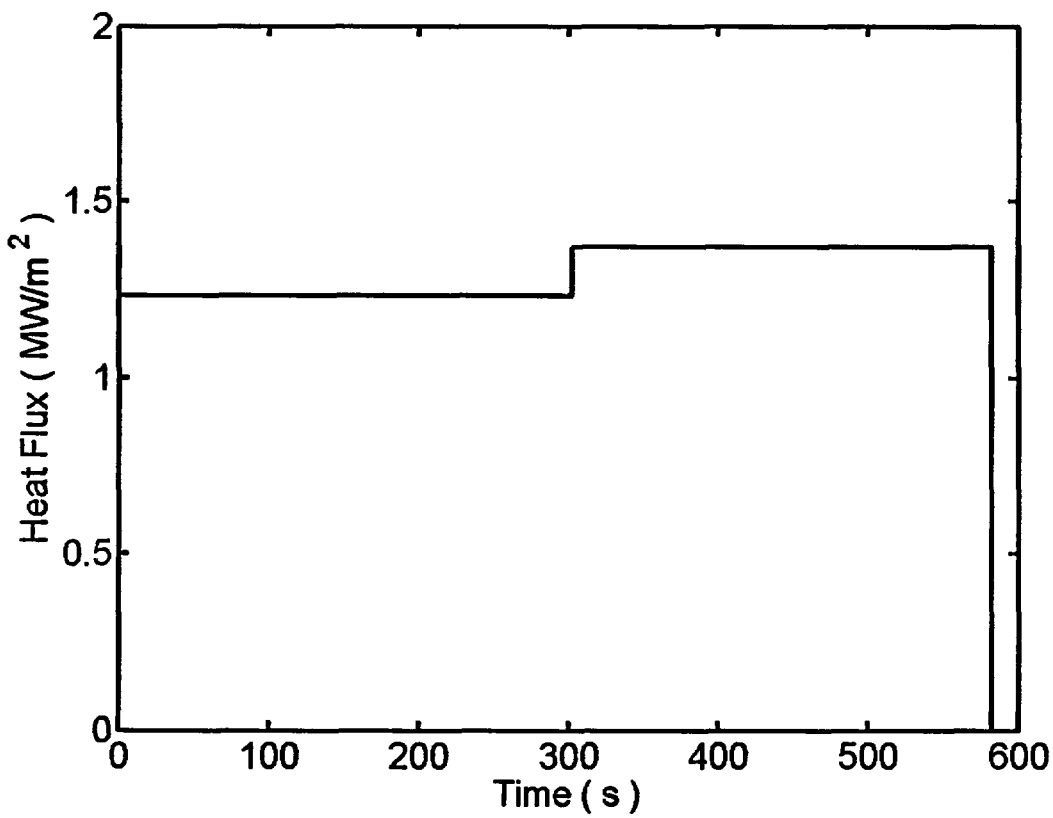

Figure A34.3. Heat flux history.

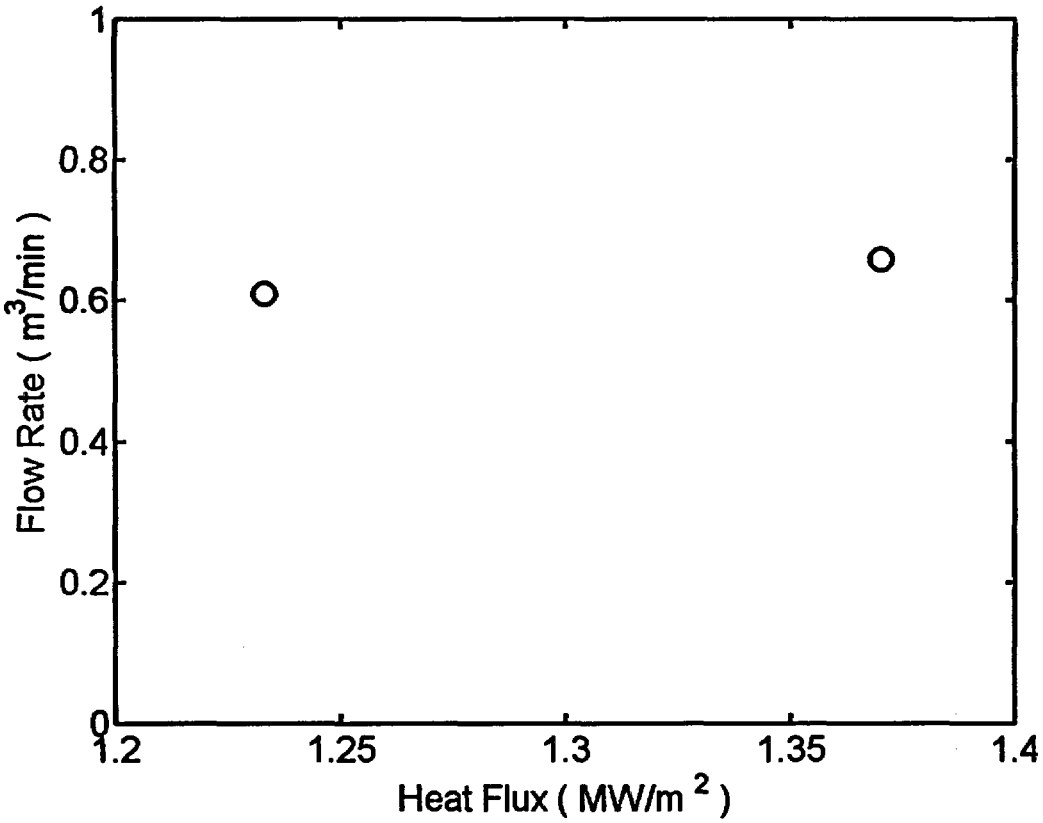

Figure A34.4. Flow rate vs. heat fluxes.

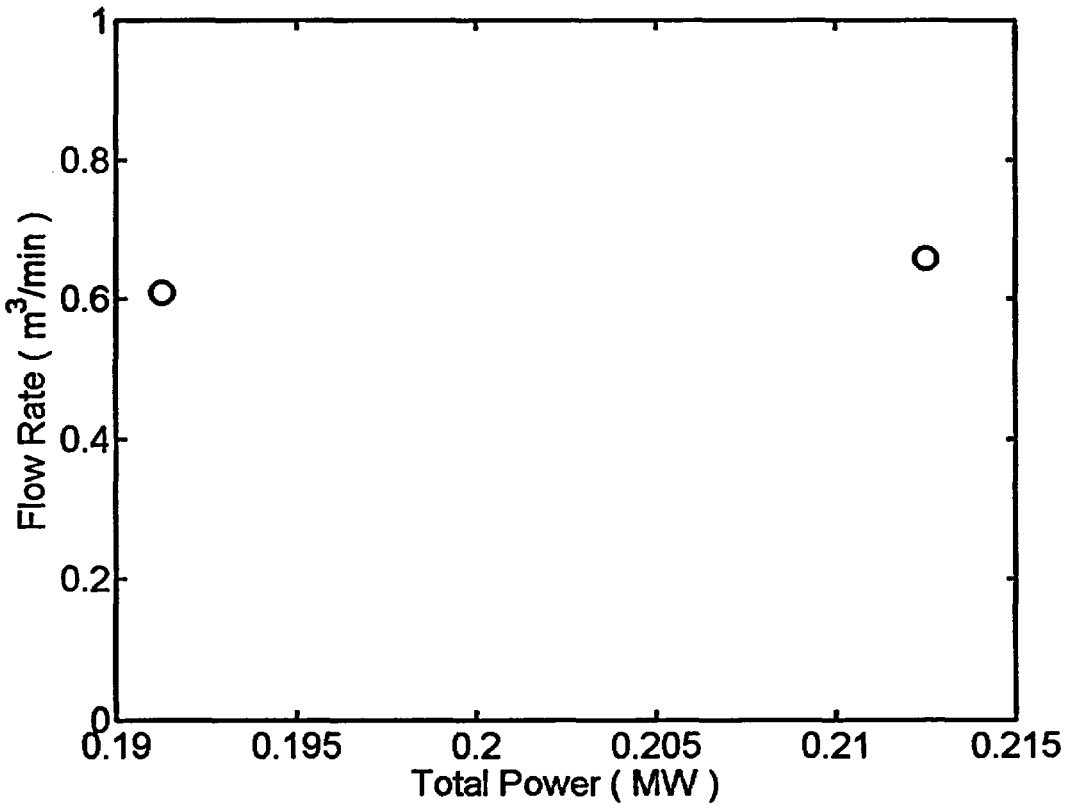

Figure A34.5. Flow rate vs. total input power.

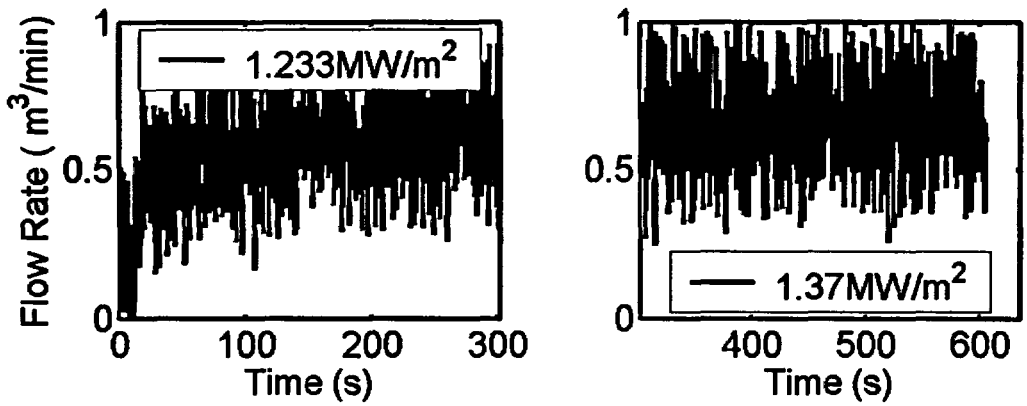

Figure A34.6. Flow rates at different heat fluxes.

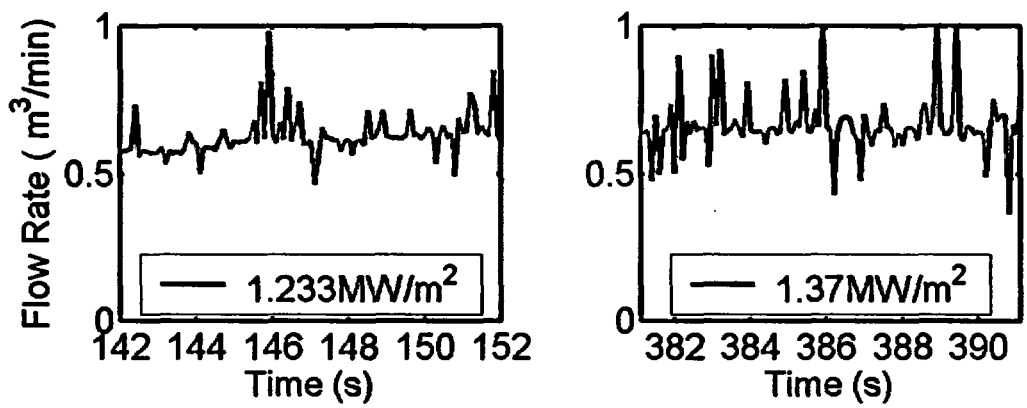

Figure A34.7. Flow rates at different heat fluxes at selected time intervals.

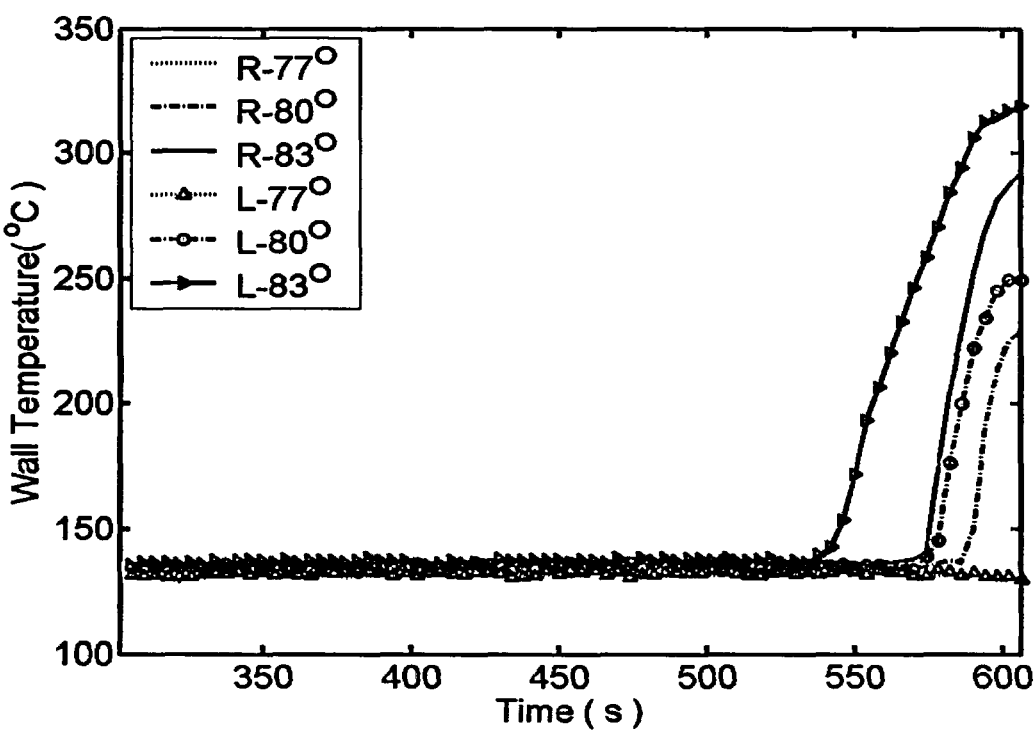

Figure A34.8. Temperature history at CHF.

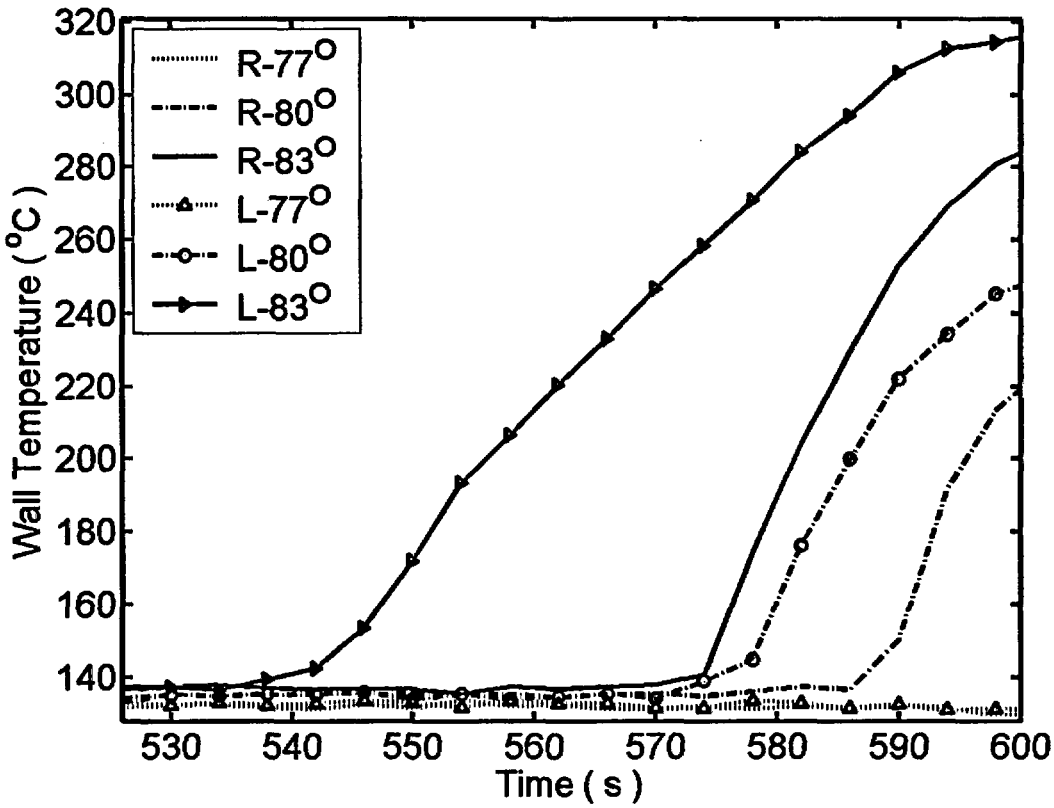

Figure A34.9. Temperature history at CHF in detail.

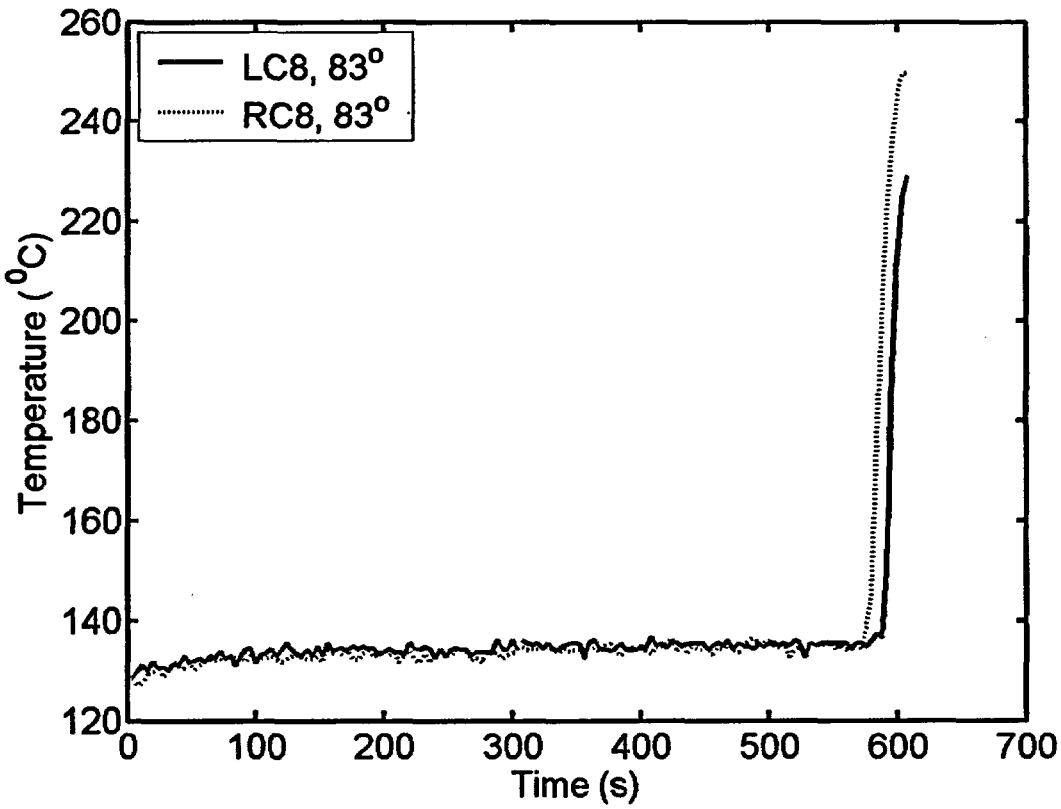

Figure A34.10. Wall temperature history measured by two thermocouples LC8 and RC8.

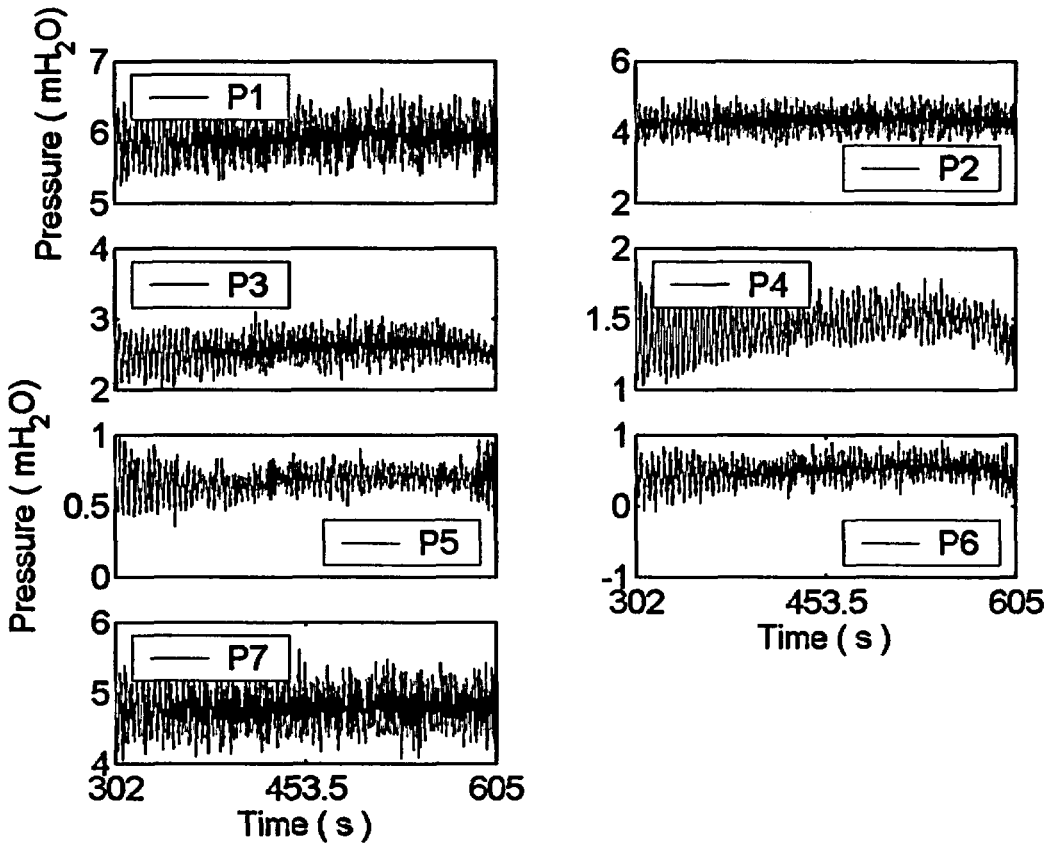

Figure A34.11. Pressure transducer data at q = 1.370 MW/m^2.

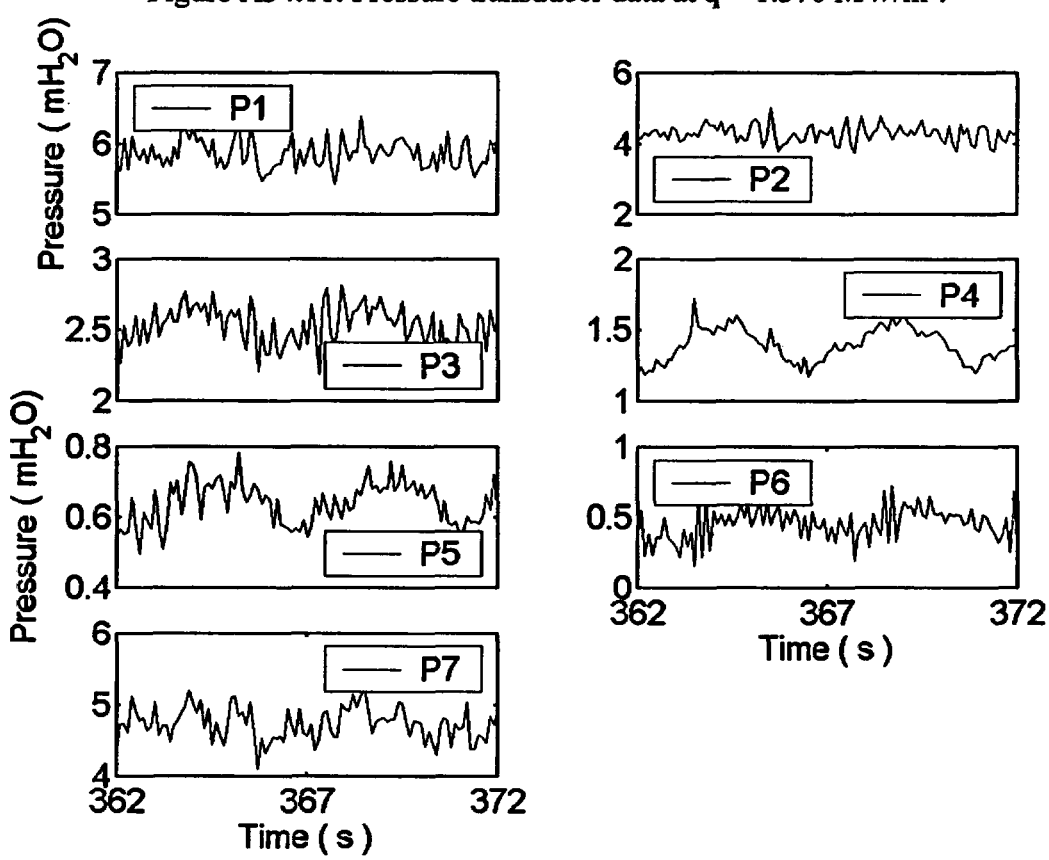

Figure A34.12. Pressure data in detail at q = 1.370 MW/m^2.

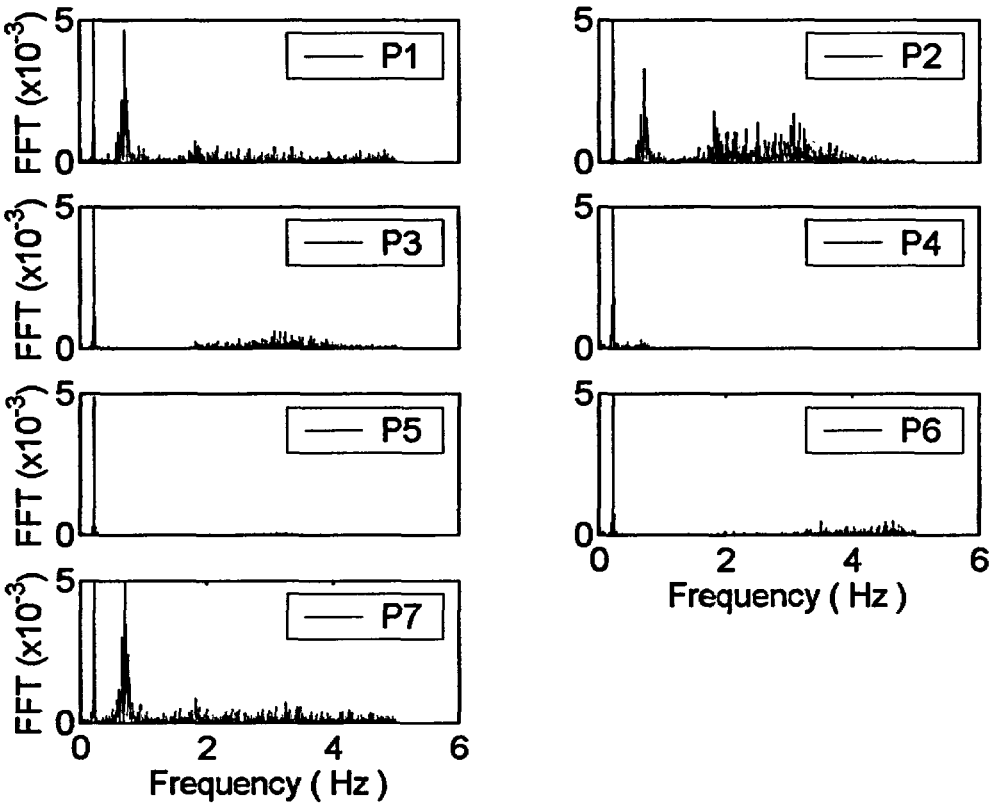

Figure A34.13. FFT of pressure time series at q = 1.370 MW/m^2.

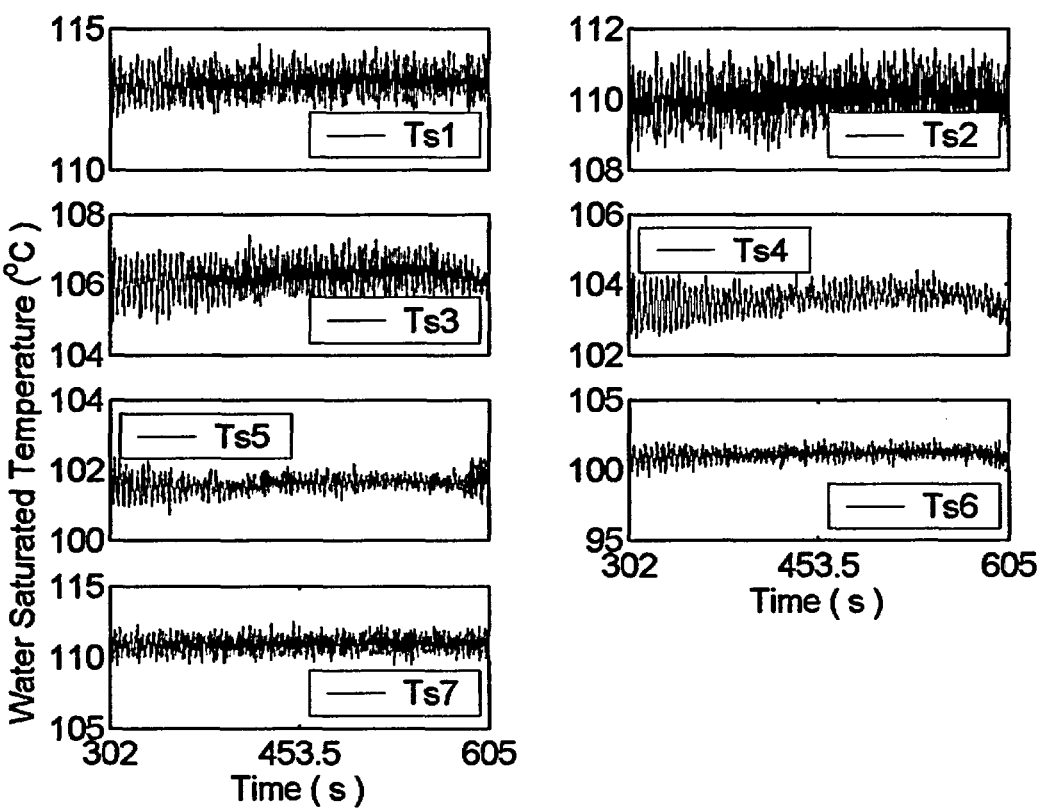

Figure A34.14. Water saturation temperature calculated from local pressure data at q = 1.370 MW/m^2.

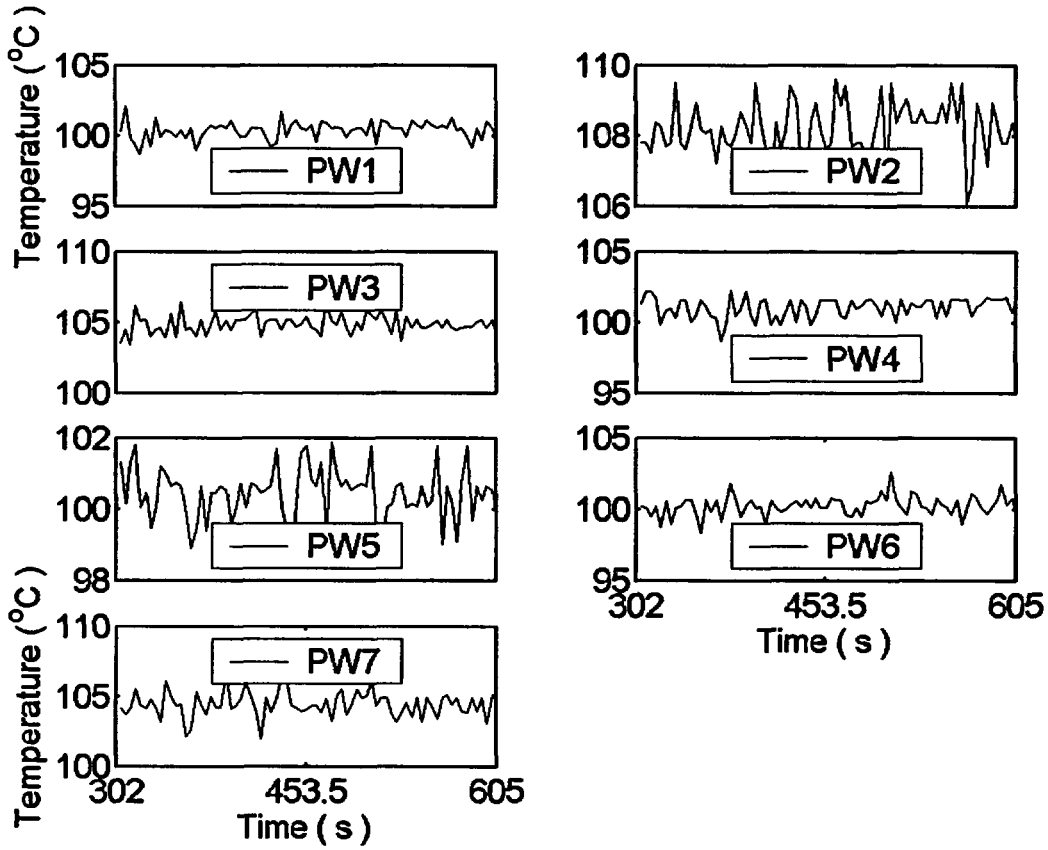

Figure A34.15. Water temperature measured at location of pressure transducer at q = 1.370 MW/m^2.

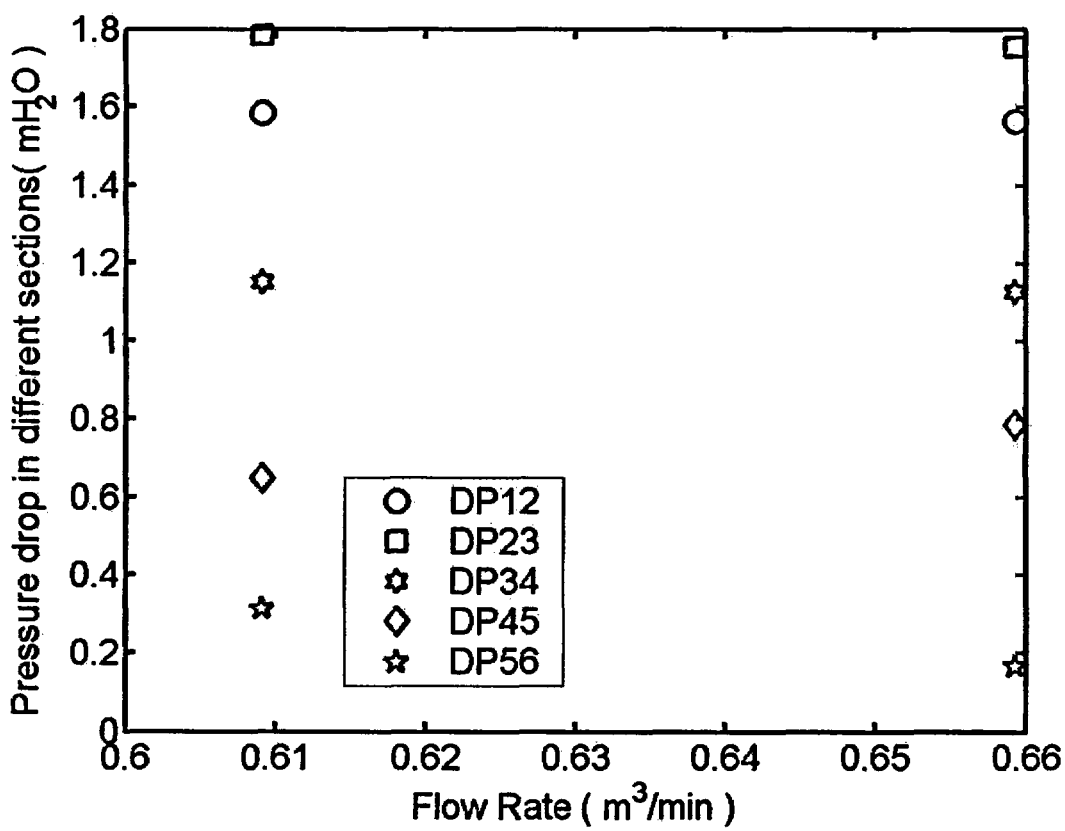

Figure A34.16. Pressure drop vs. flow rate at different heat fluxes.

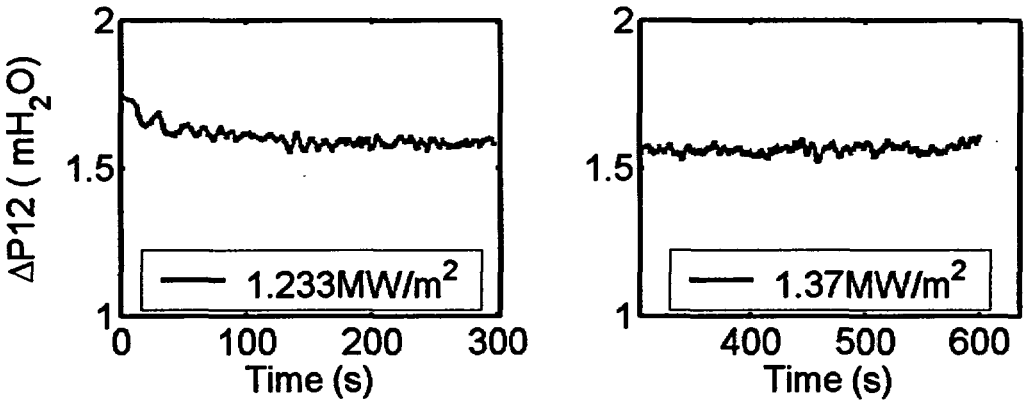

Figure A34.17. Differential Pressure ΔP12 at different heat fluxes.

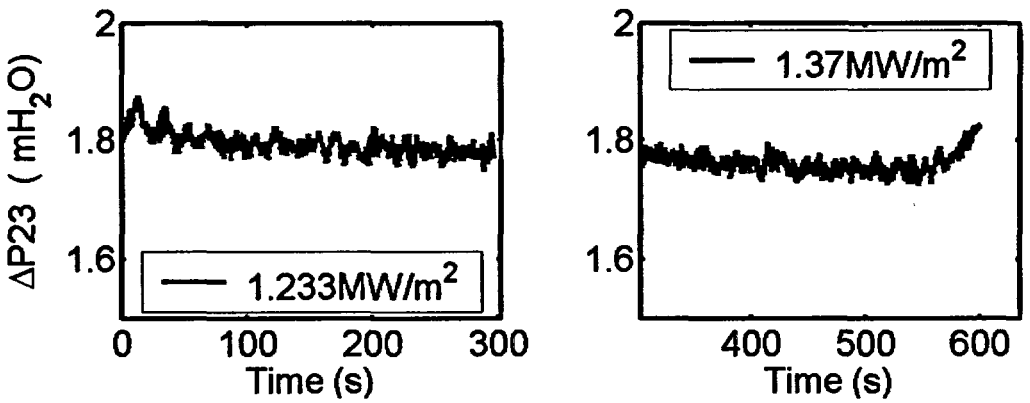

Figure A34.18. Differential Pressure ΔP23 at different heat fluxes.

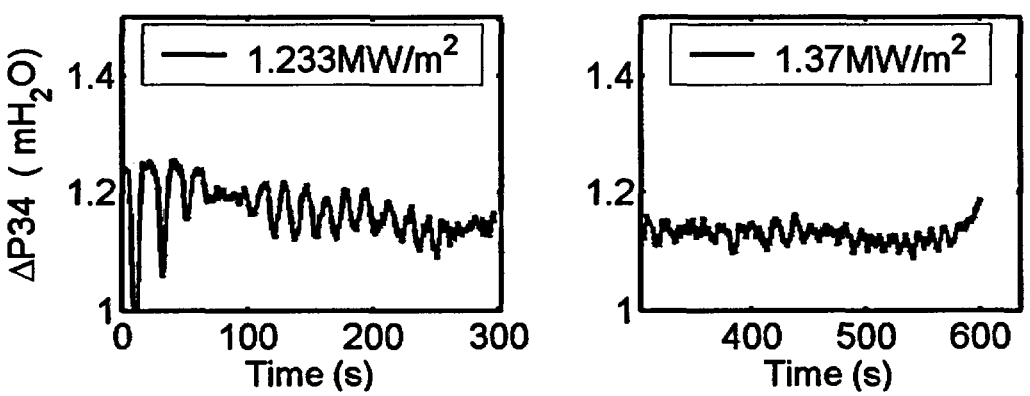

Figure A34.19. Differential Pressure ΔP34 at different heat fluxes.

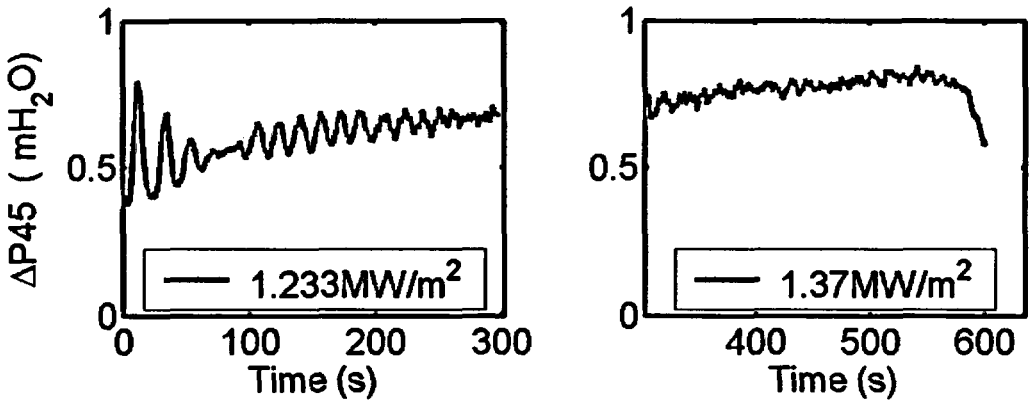

Figure A34.20. Differential Pressure ΔP45 at different heat fluxes.

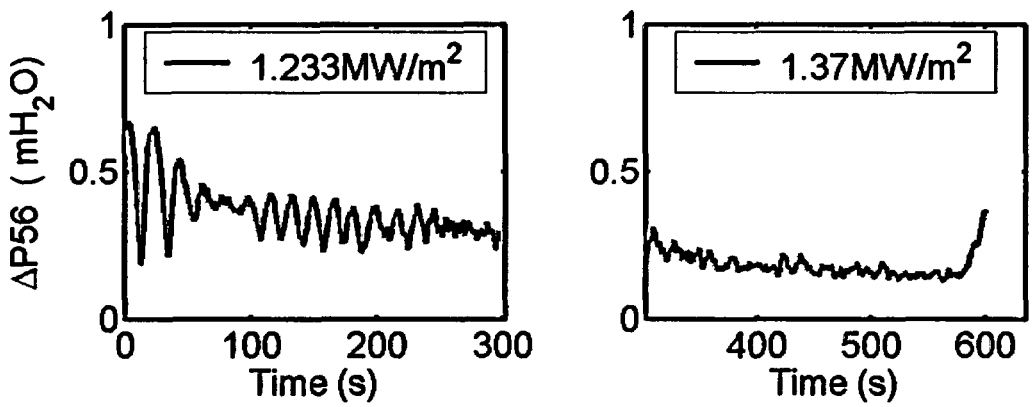

Figure A34.21. Differential Pressure ΔP56 at different heat fluxes.

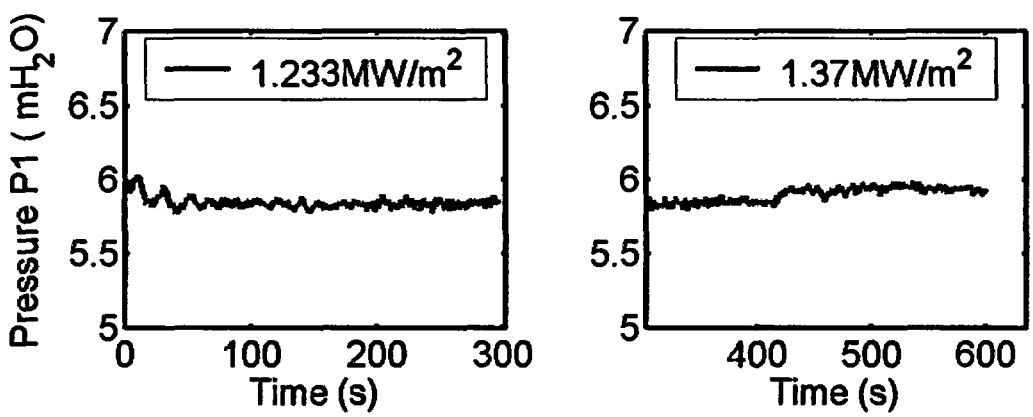

Figure A34.22. Pressure P1 at different heat fluxes.

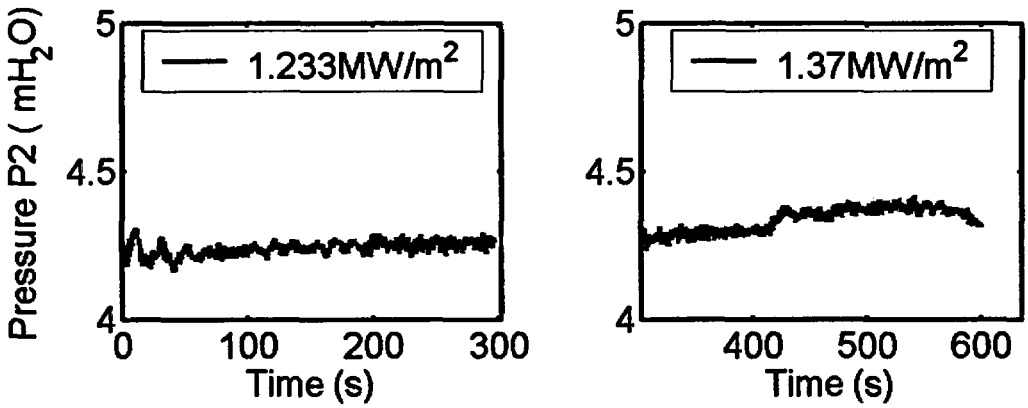

Figure A34.23. Pressure P2 at different heat fluxes.

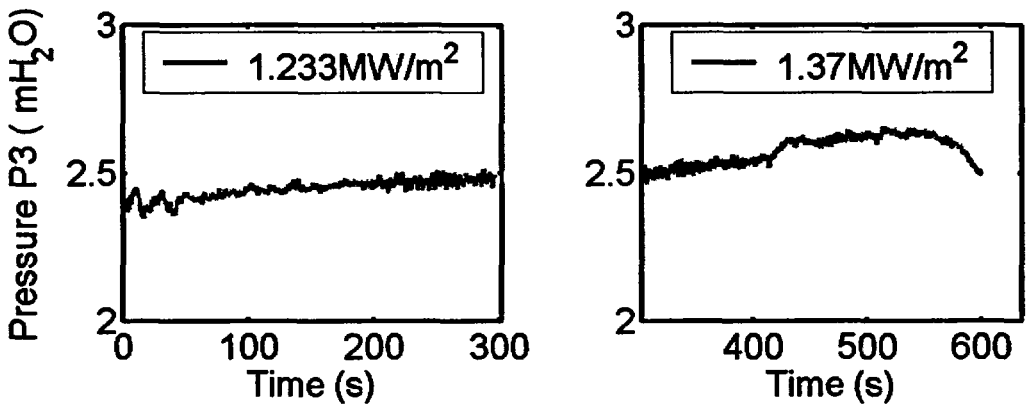

Figure A34.24. Pressure P3 at different heat fluxes.

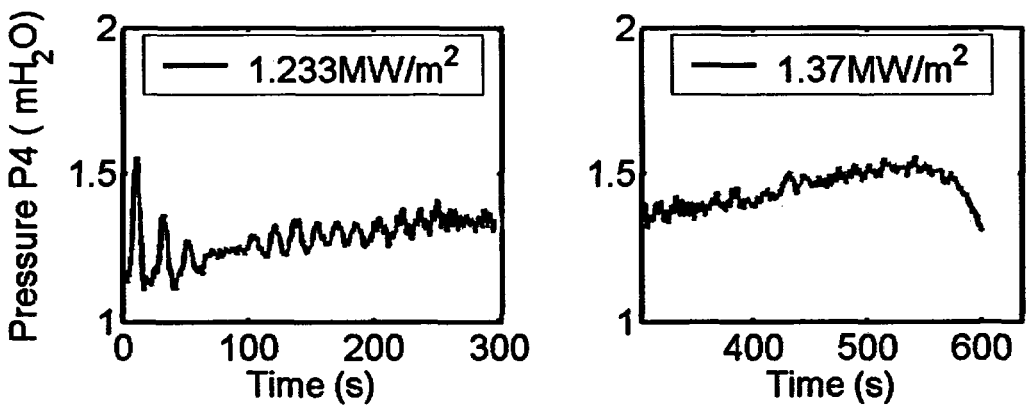

Figure A34.25. Pressure P4 at different heat fluxes.

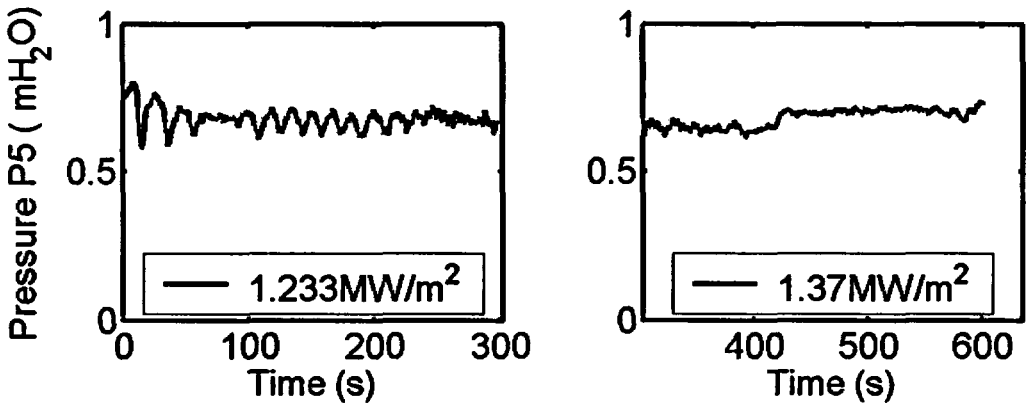

Figure A34.26. Pressure P5 at different heat fluxes.

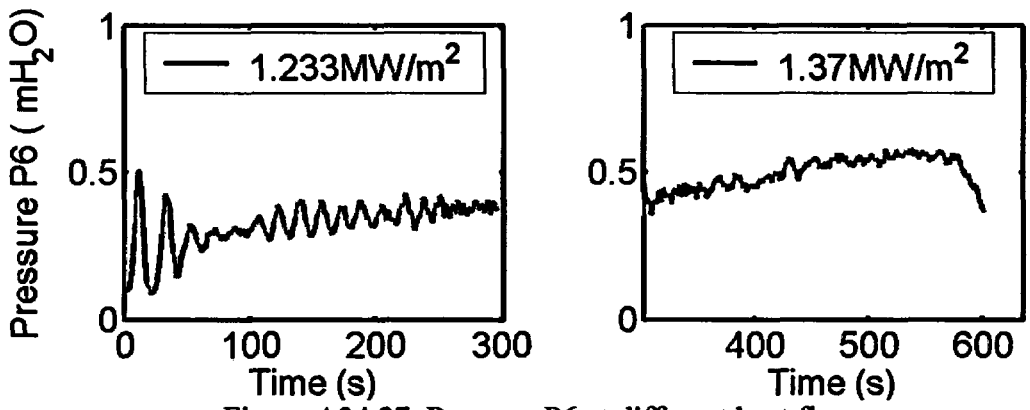

Figure A34.27. Pressure P6 at different heat fluxes.

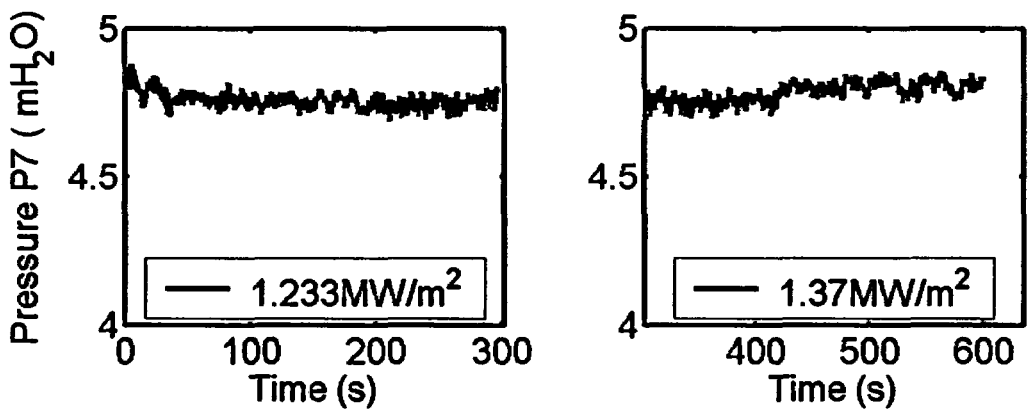

Figure A34.28. Pressure P7 at different heat fluxes.

ID #35

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
3	T48C	1288	LC8	83	C	12/19/2002/12:30

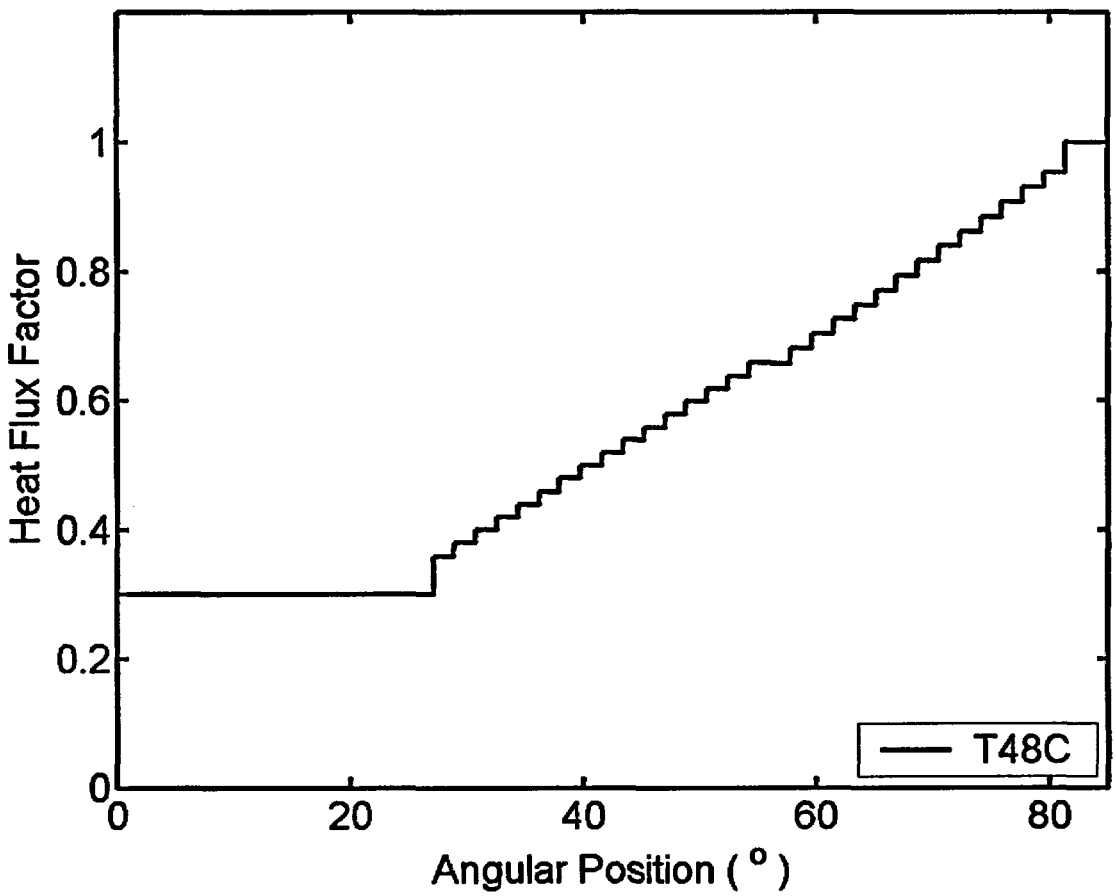

Figure A35.1. Power shape.

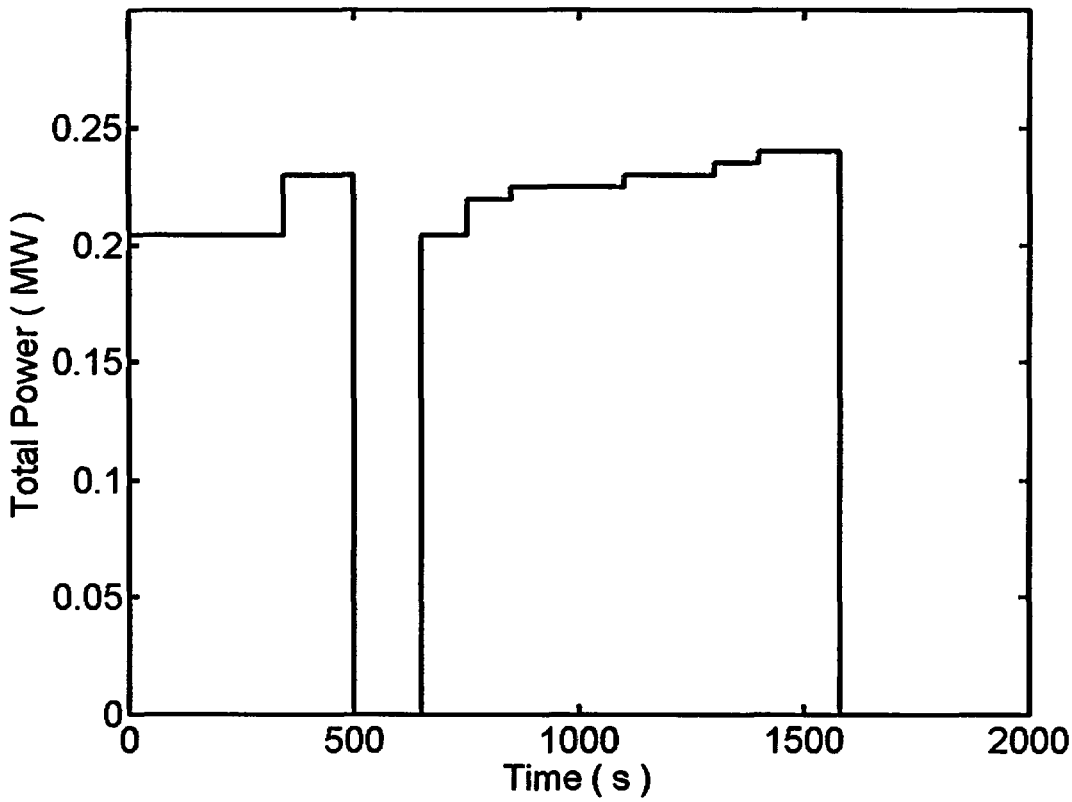

Figure A35.2. Total input power history.

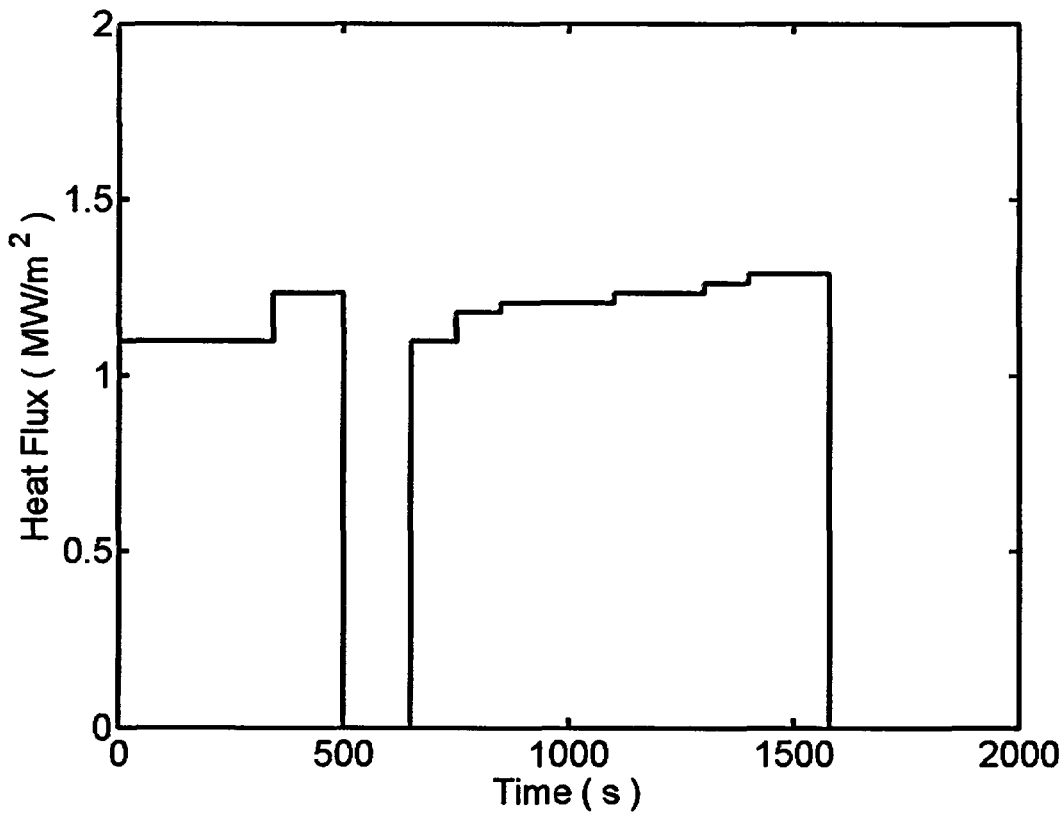

Figure A35.3. Heat flux history.

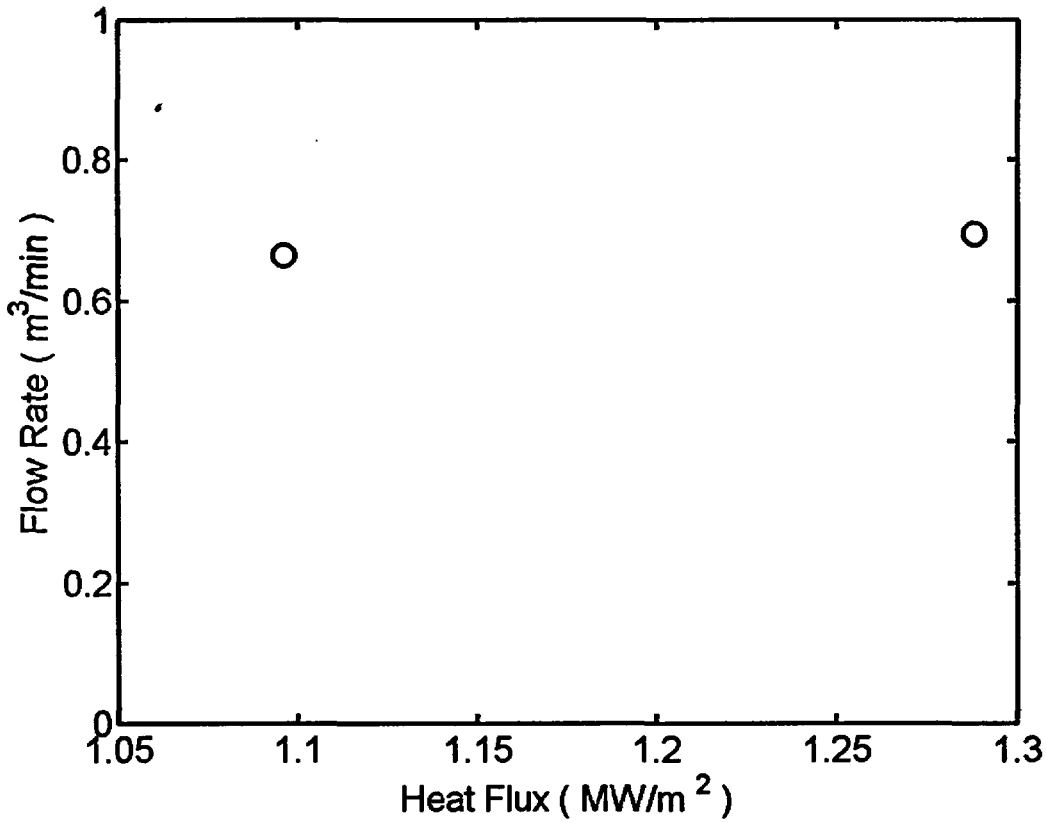

Figure A35.4. Flow rate vs. heat fluxes.

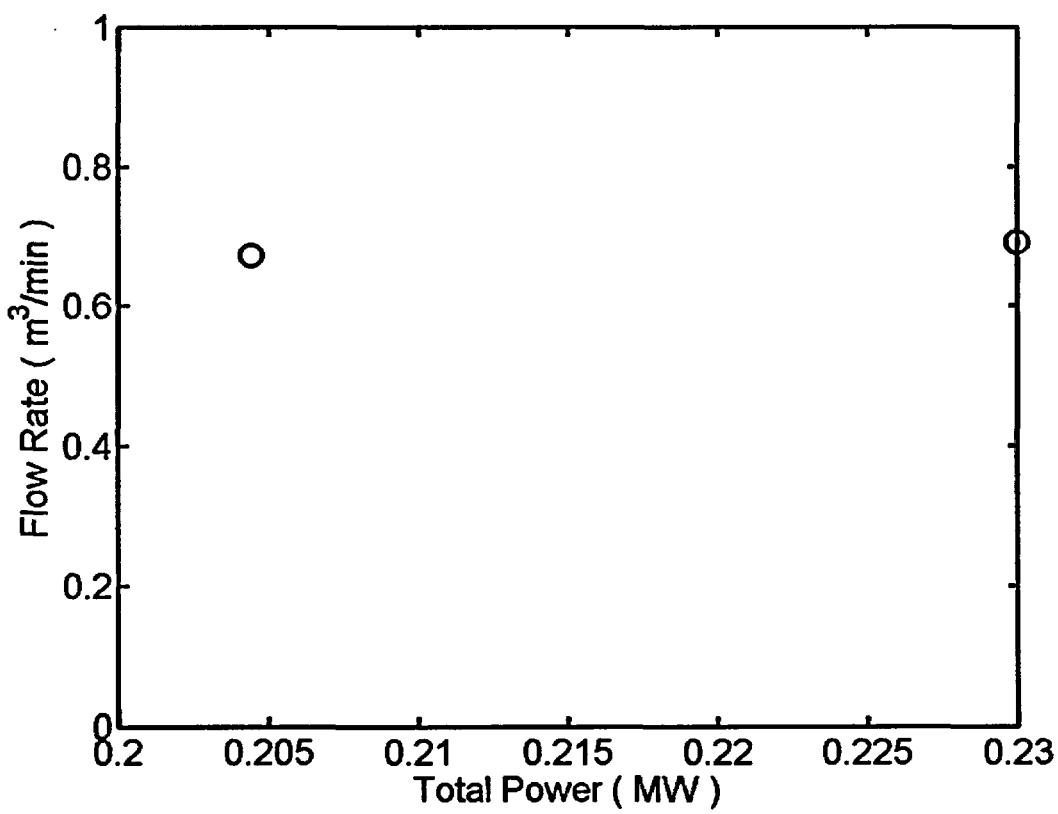

Figure A35.5. Flow rate vs. total input power.

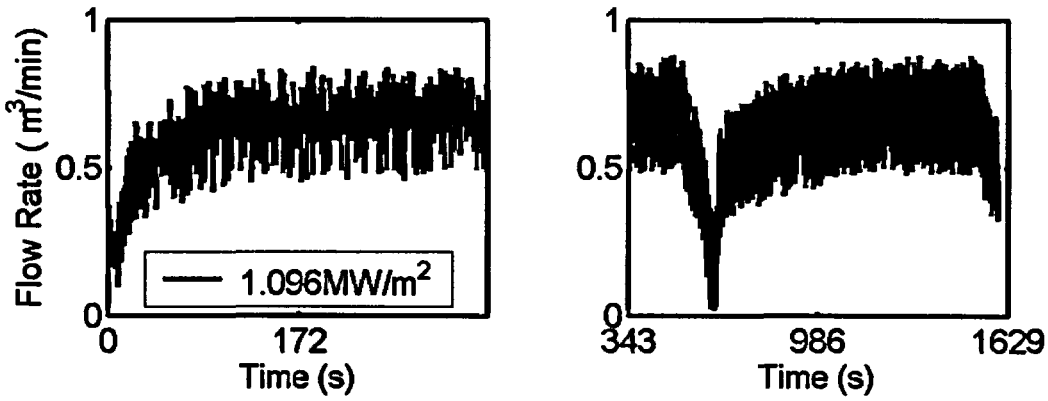

Figure A35.6. Flow rates at different heat fluxes.

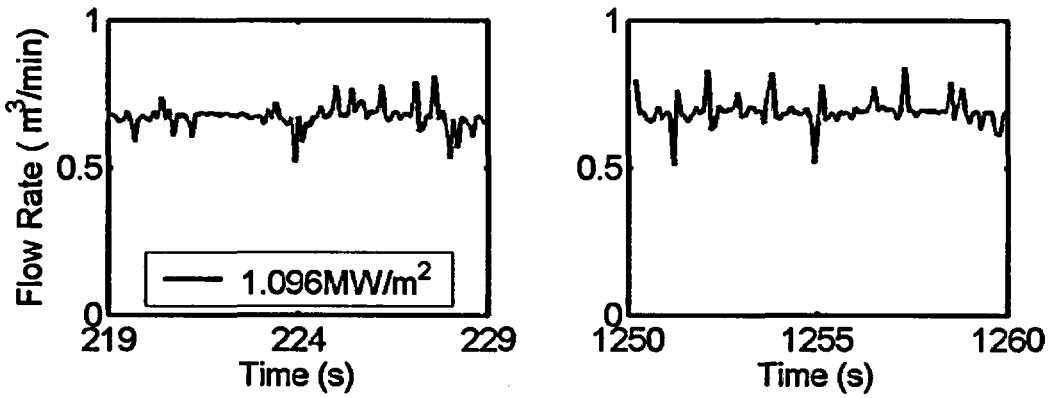

Figure A35.7. Flow rates at different heat fluxes at selected time intervals.

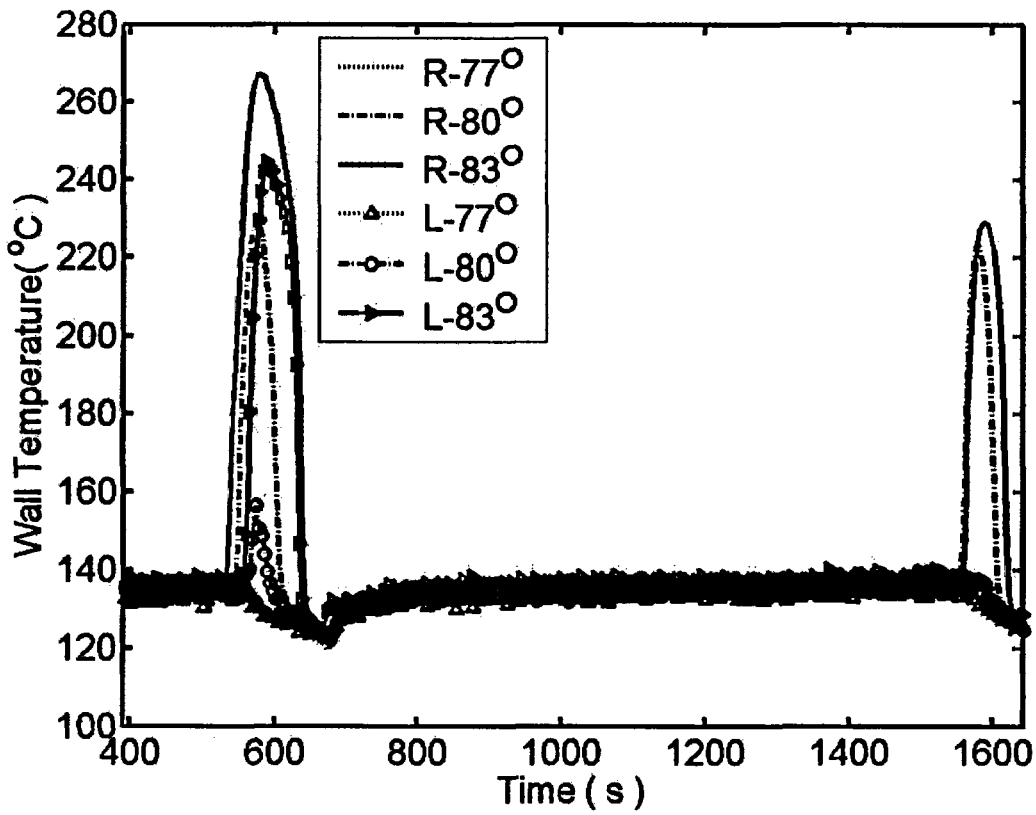

Figure A35.8. Temperature history at CHF.

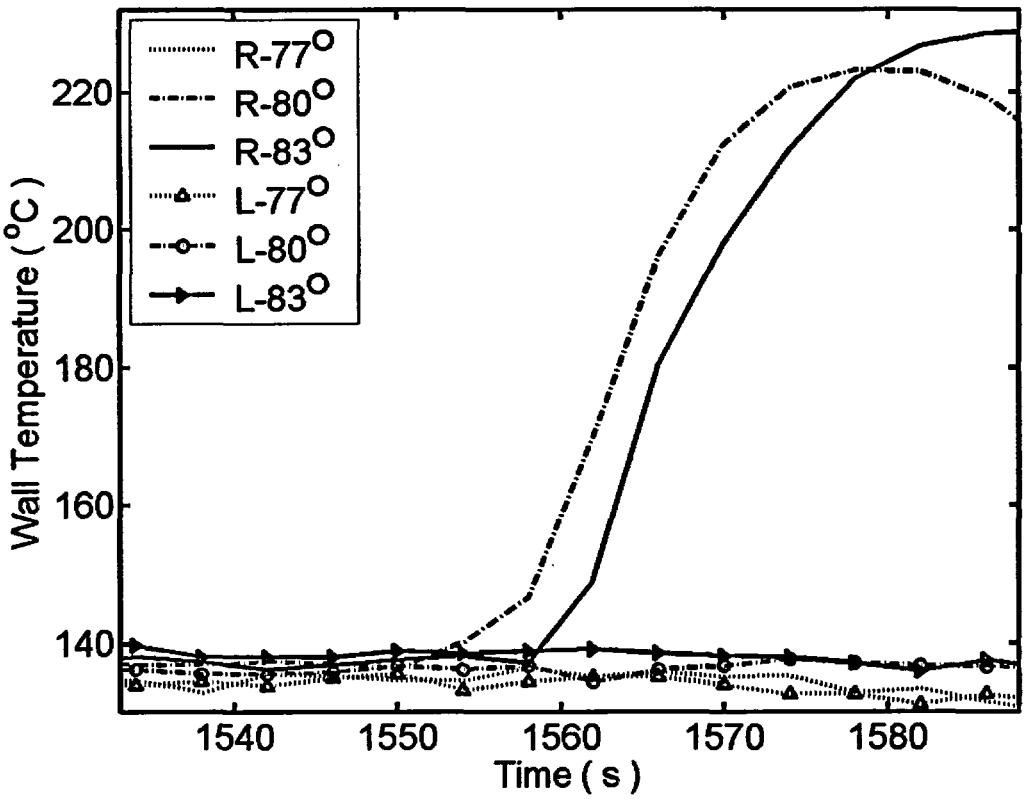

Figure A35.9. Temperature history at CHF in detail.

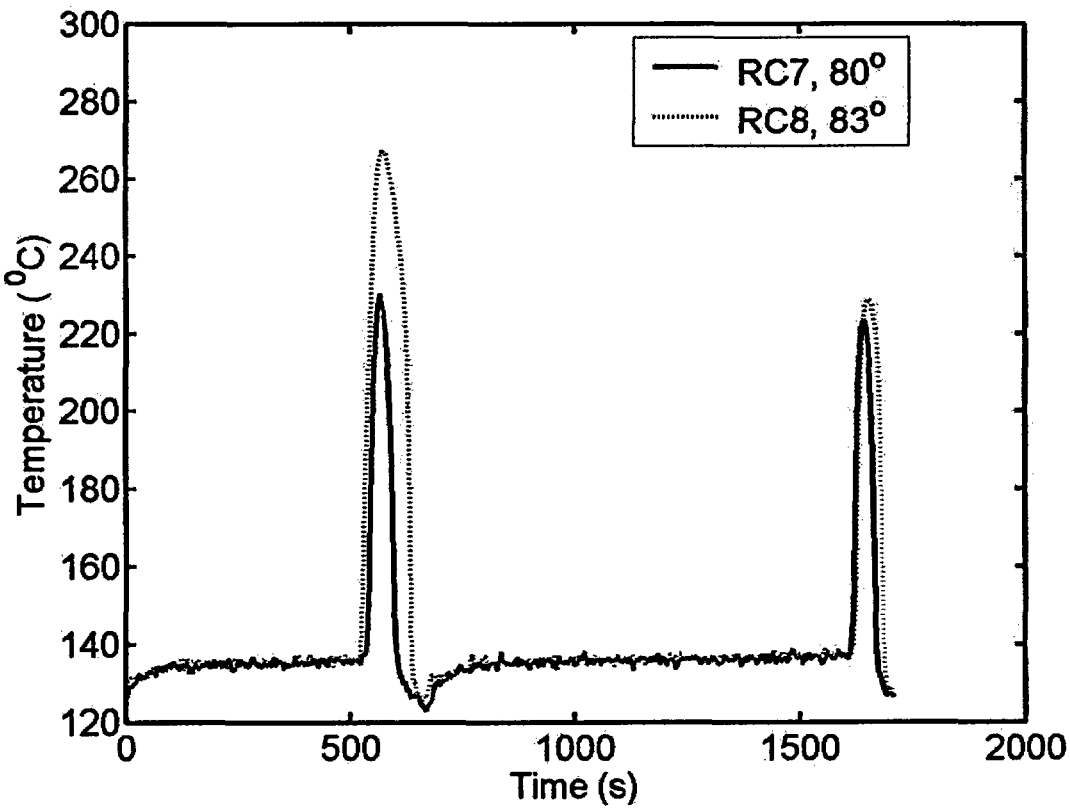

Figure A35.10. Wall temperature history measured by two thermocouples RC7 and RC8.

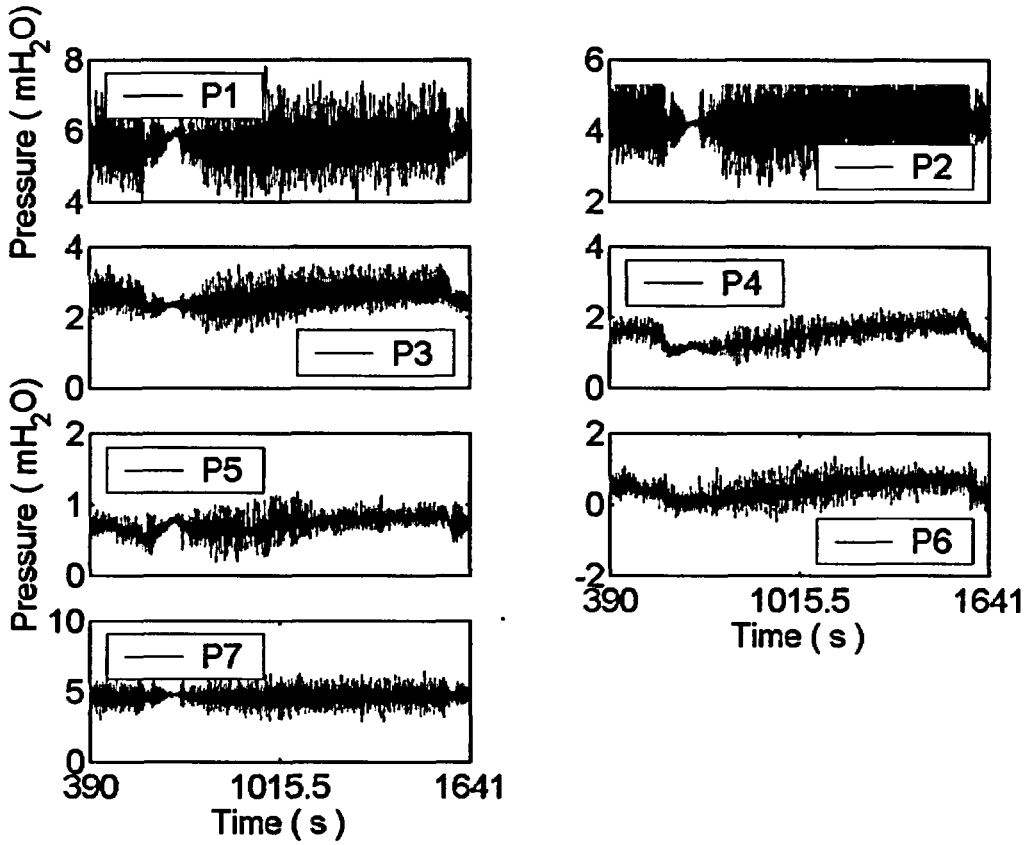

Figure A35.11. Pressure transducer data for time interval 390 to 1641 s.

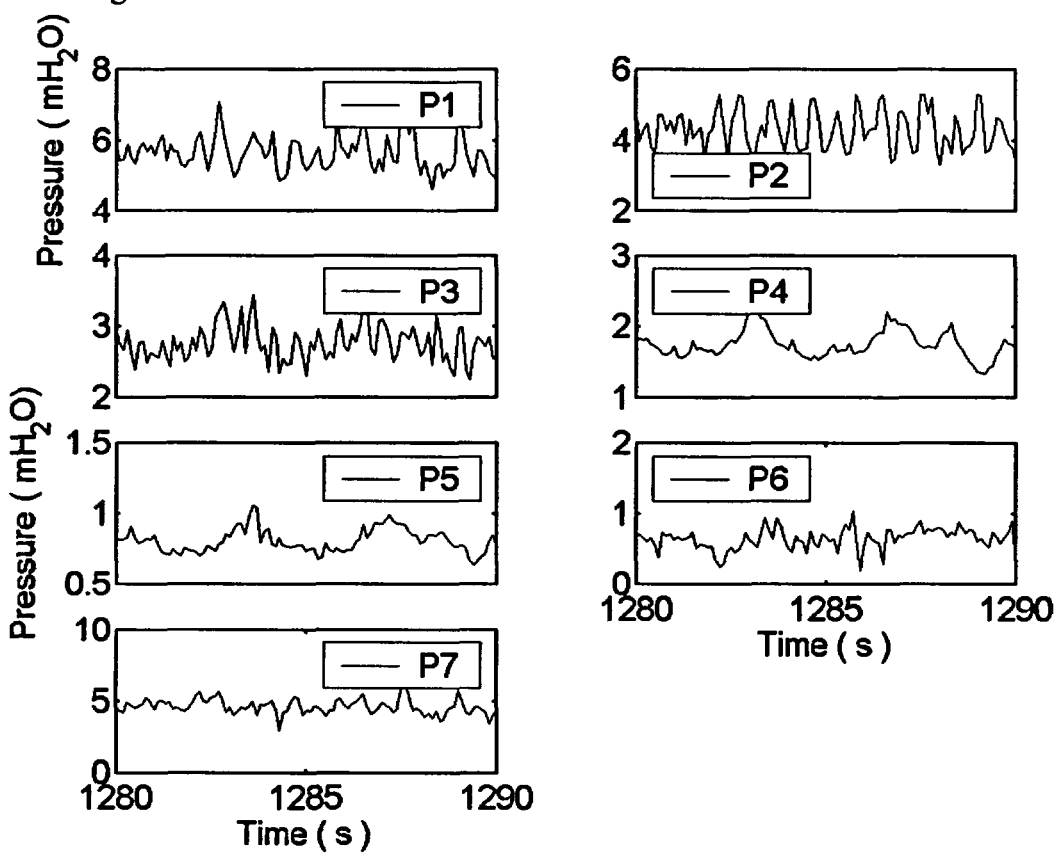

Figure A35.12. Pressure data in detail at q = 1.288MW/m^2.

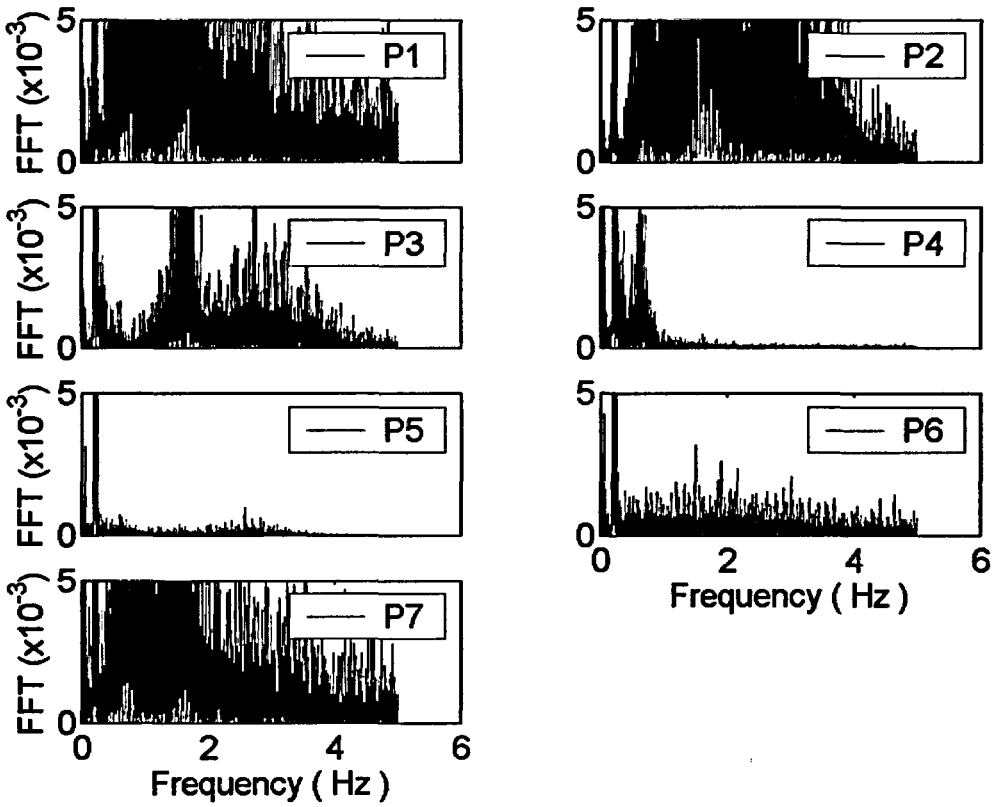

Figure A35.13. FFT of pressure time series for time interval 390 to 1641 s.

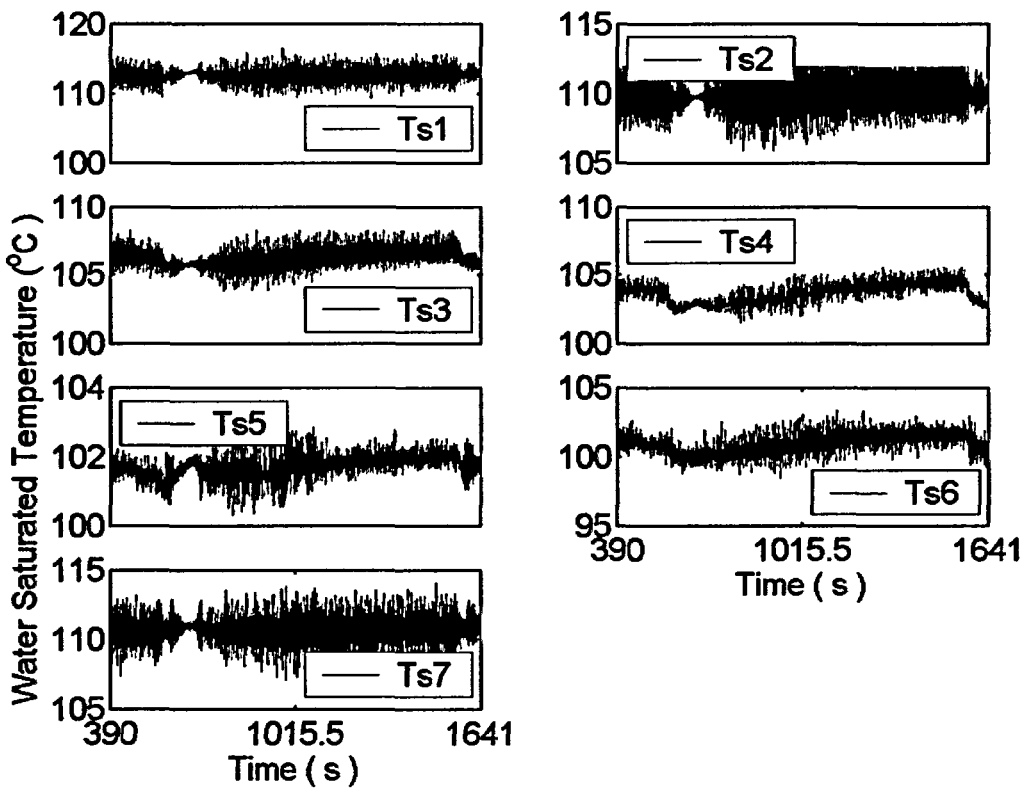

Figure A35.14. Water saturation temperature calculated from local pressure data for time interval 390 to 1641 s.

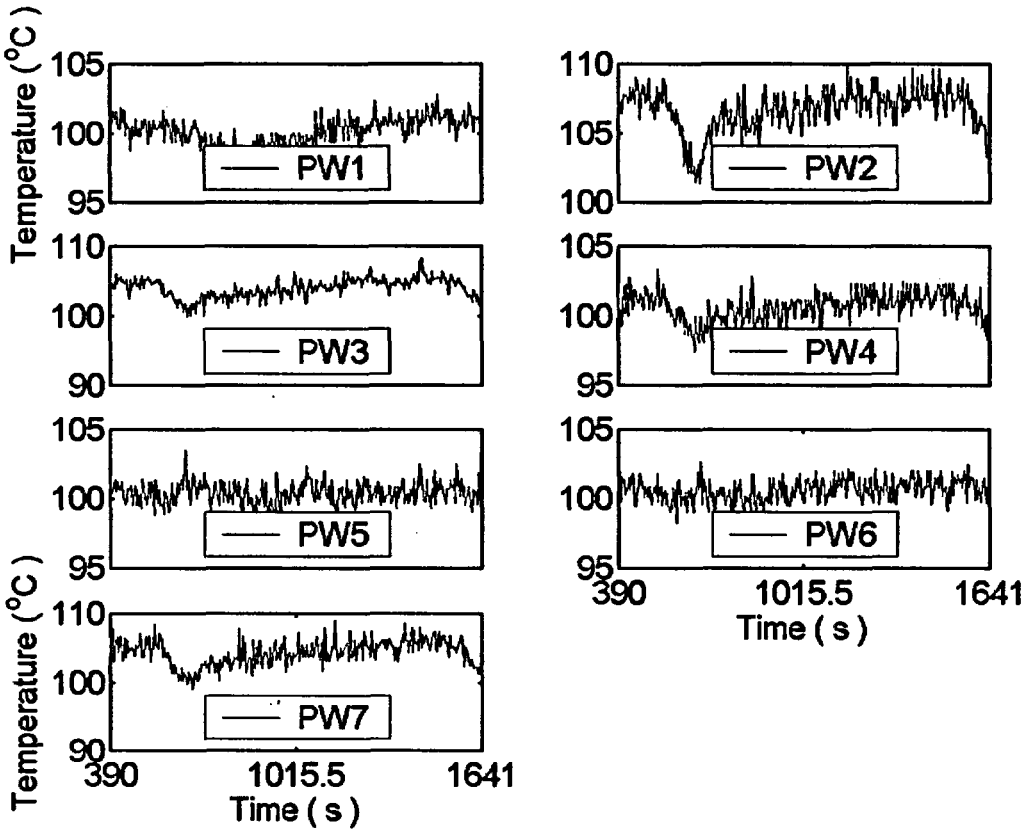

Figure A35.15. Water temperature measured at location of pressure transducer for time interval 390 to 1641 s.

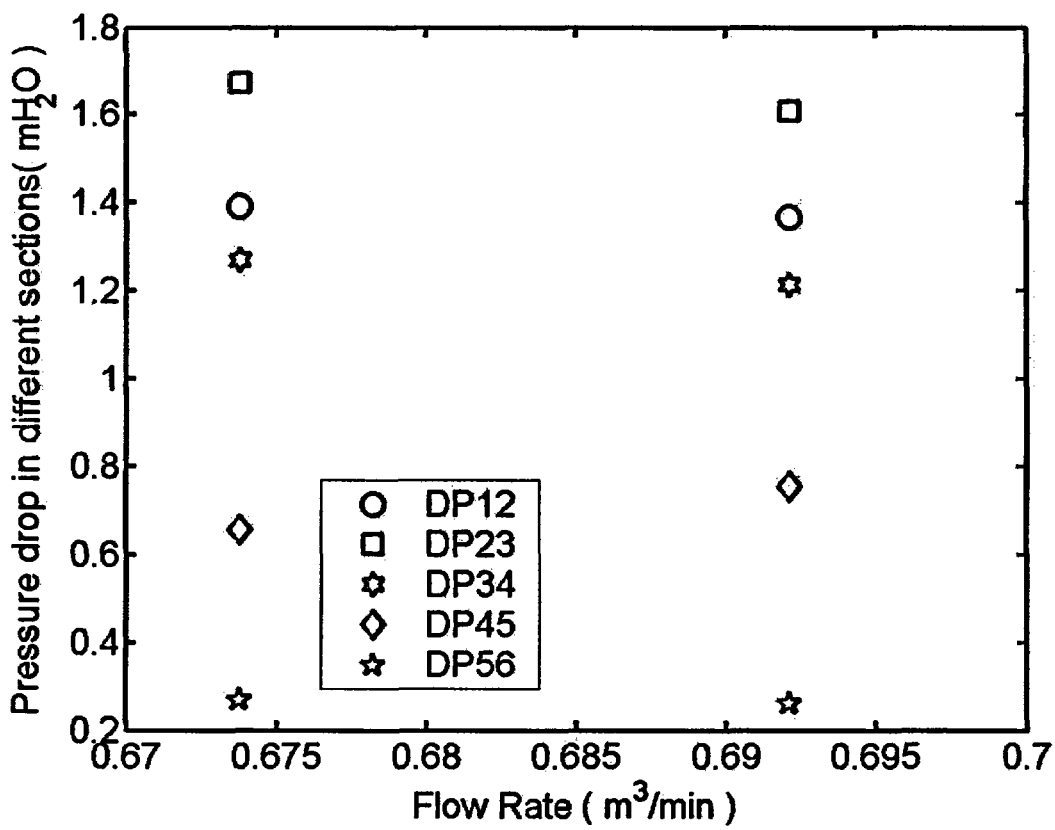

Figure A35.16. Pressure drop vs. flow rate at different heat fluxes.

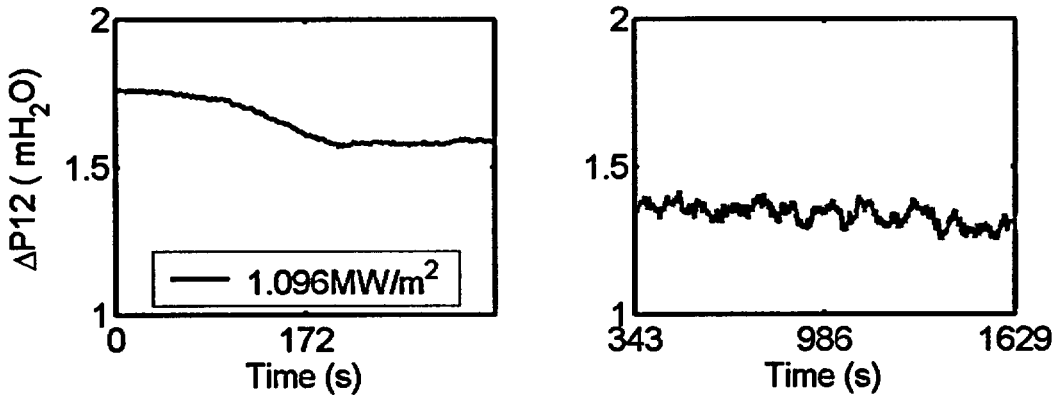

Figure A35.17. Differential Pressure ΔP12 at different heat fluxes.

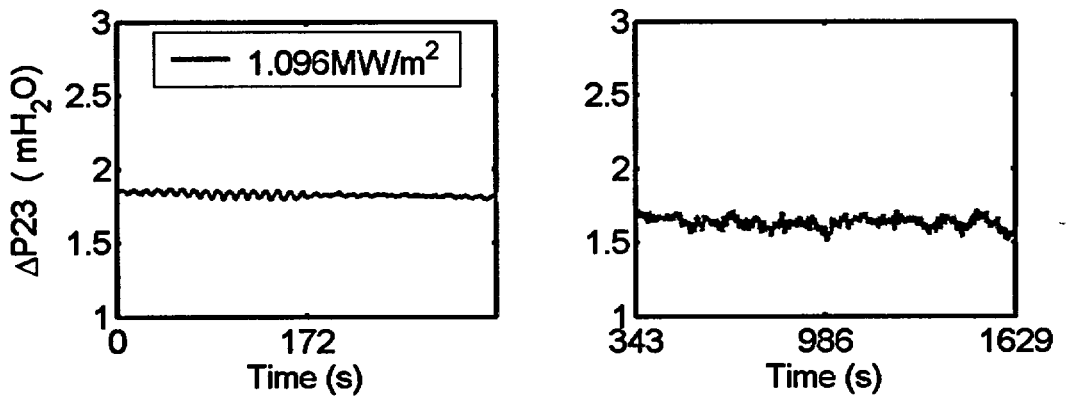

Figure A35.18. Differential Pressure ΔP23 at different heat fluxes.

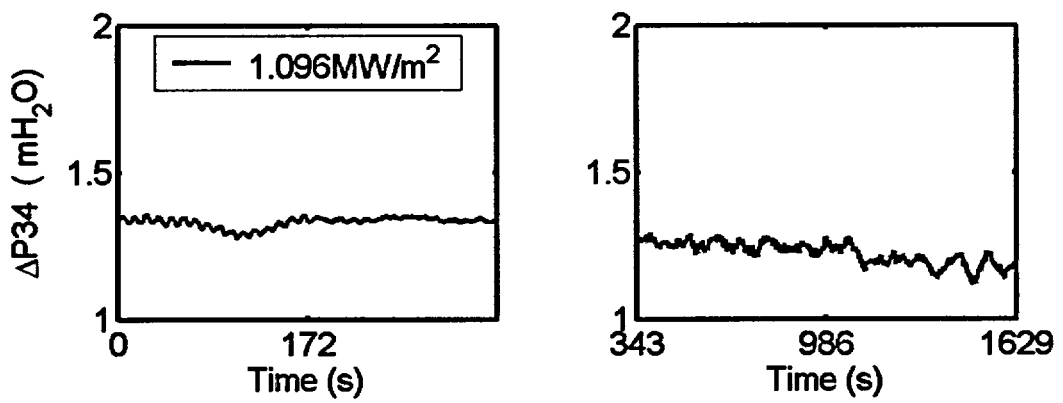

Figure A35.19. Differential Pressure ΔP34 at different heat fluxes.

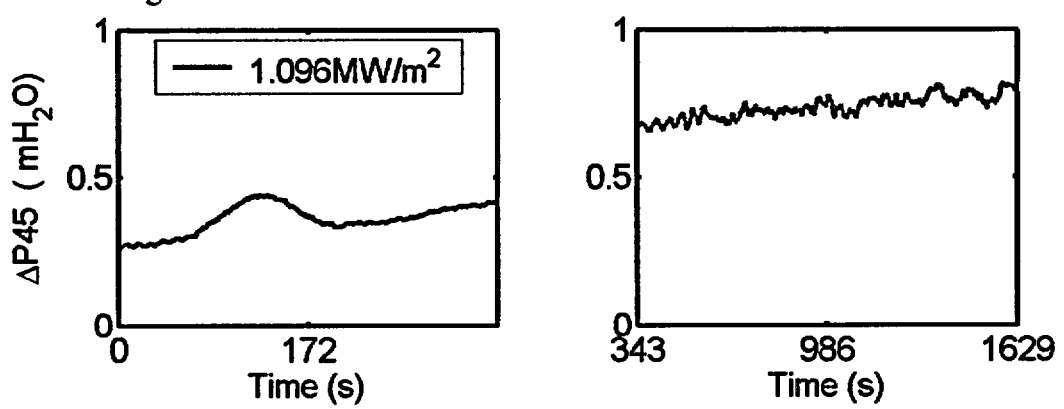

Figure A35.20. Differential Pressure ΔP45 at different heat fluxes.

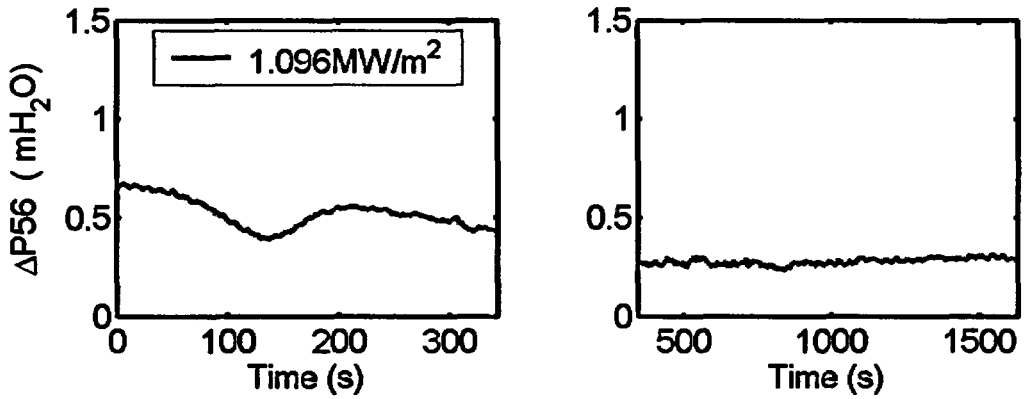

Figure A35.21. Differential Pressure ΔP56 at different heat fluxes.

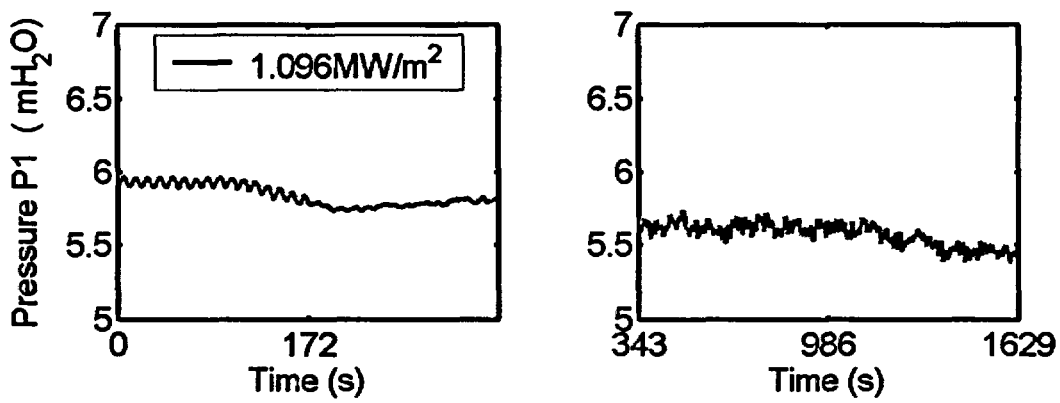

Figure A35.22. Pressure P1 at different heat fluxes.

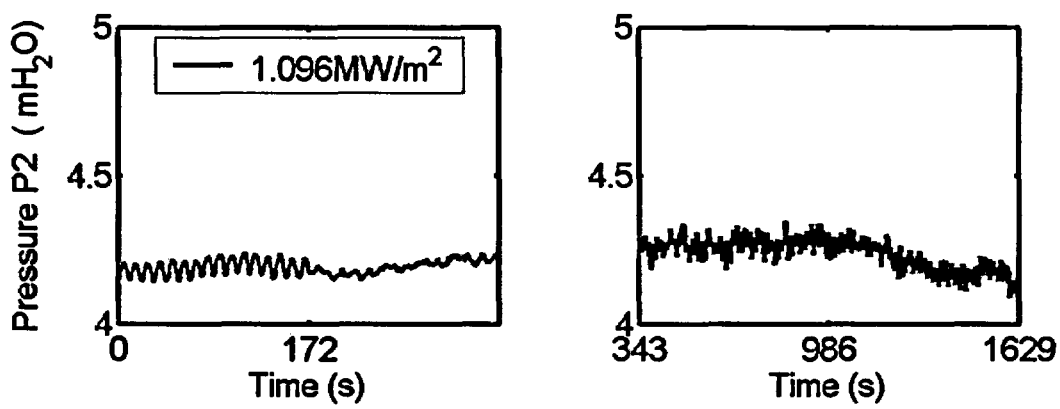

Figure A35.23. Pressure P2 at different heat fluxes.

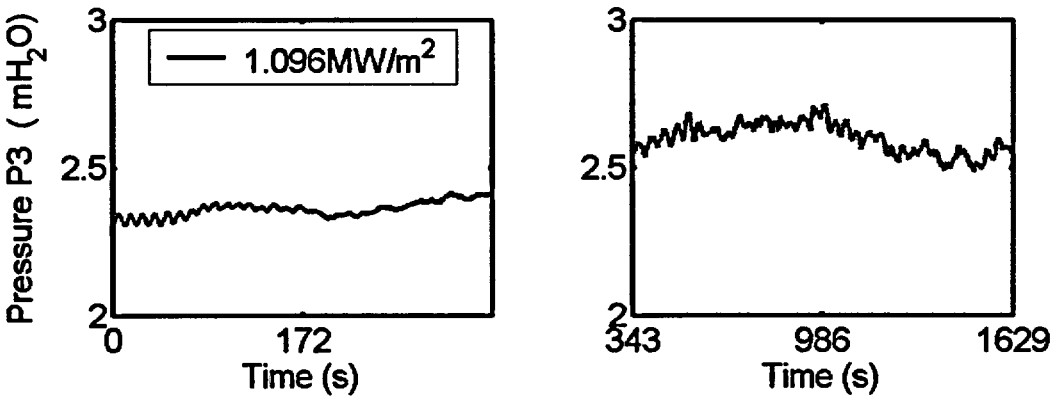

Figure A35.24. Pressure P3 at different heat fluxes.

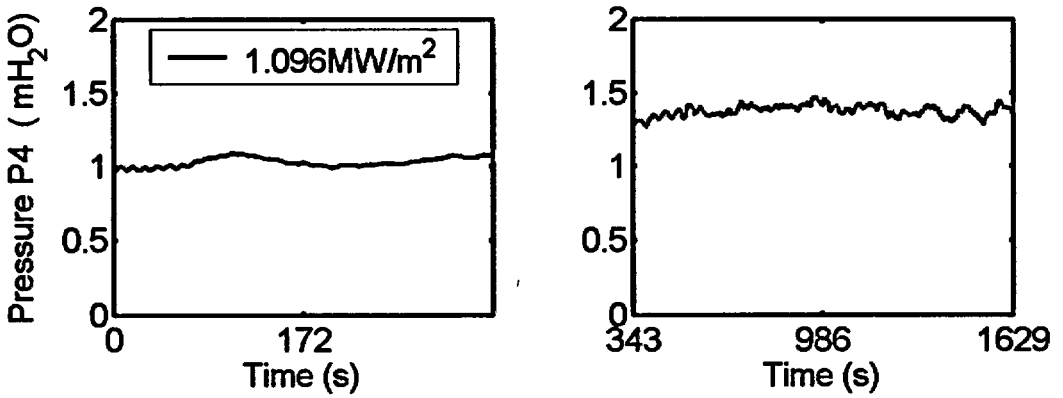

Figure A35.25. Pressure P4 at different heat fluxes.

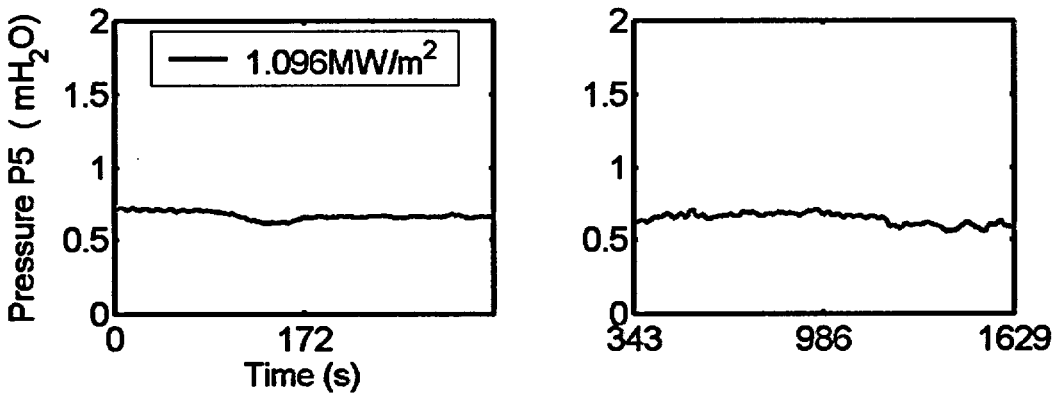

Figure A35.26. Pressure P5 at different heat fluxes.

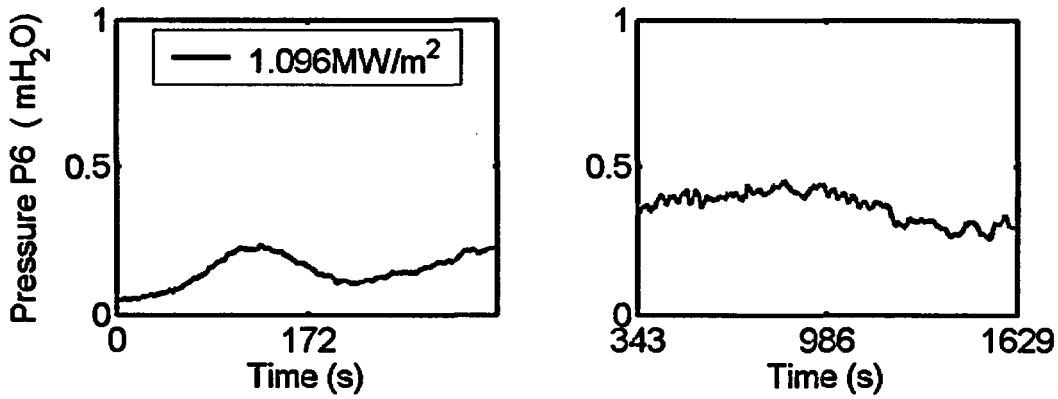

Figure A35.27. Pressure P6 at different heat fluxes.

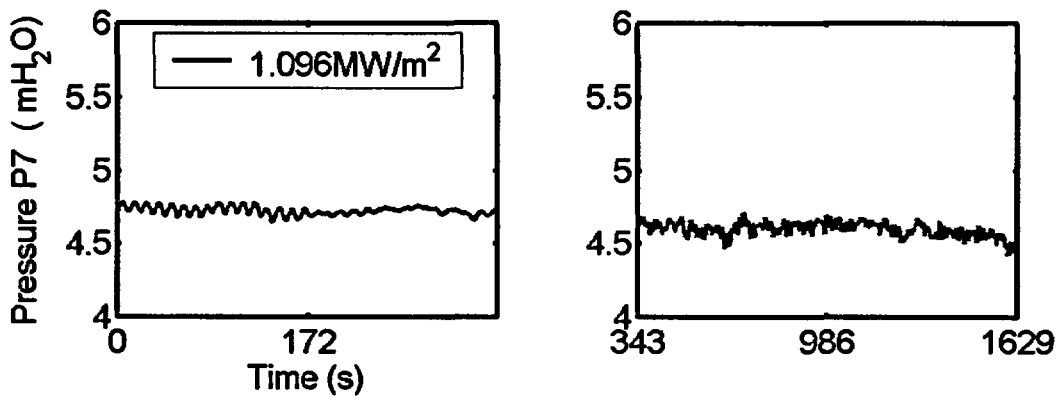

Figure A35.28. Pressure P7 at different heat fluxes.

ID #36

Baffle Position (inch)	Power shape	CHF (kW/m^2)	TC at CHF	CHF Location (°)	Pressure Transducer Configuration	Date/Time (mm/dd/yy/hh:mm)
6(top) 3(bottom)	T48C	1370	LC8	83	C	01/03/2003/13:10

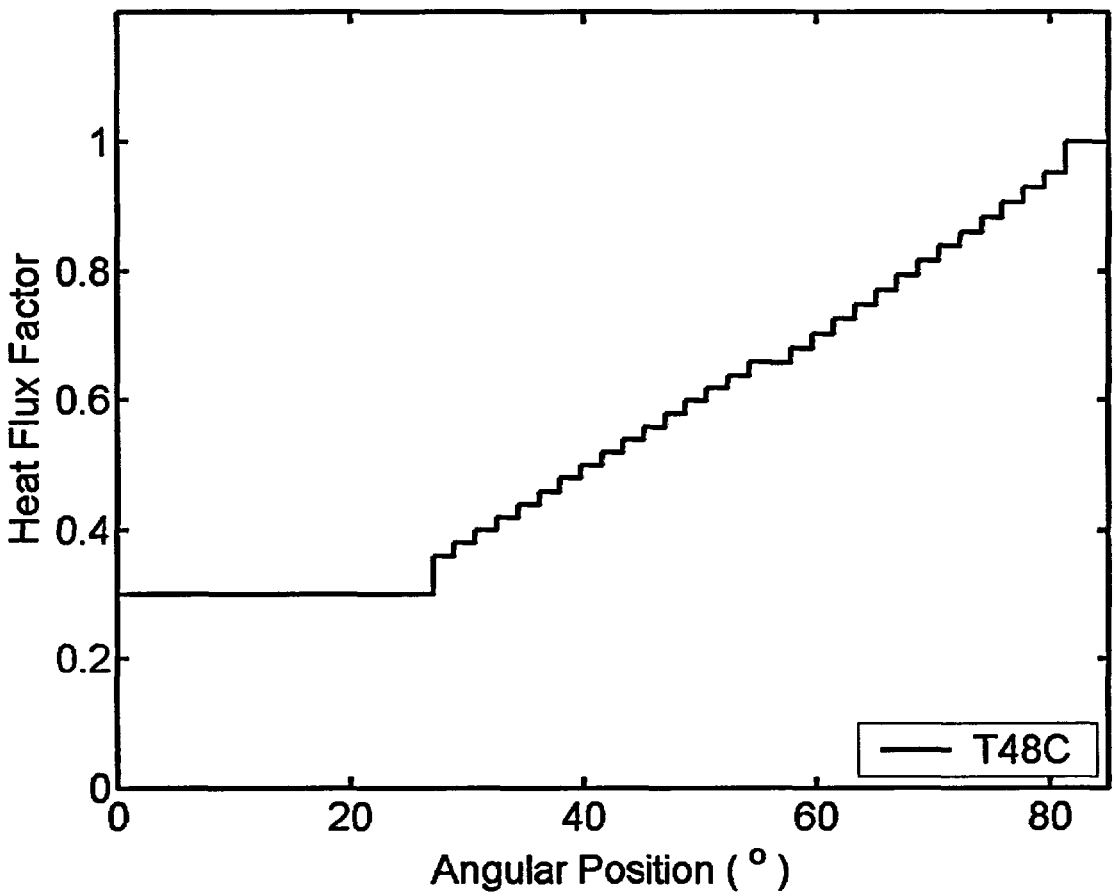

Figure A36.1. Power shape.

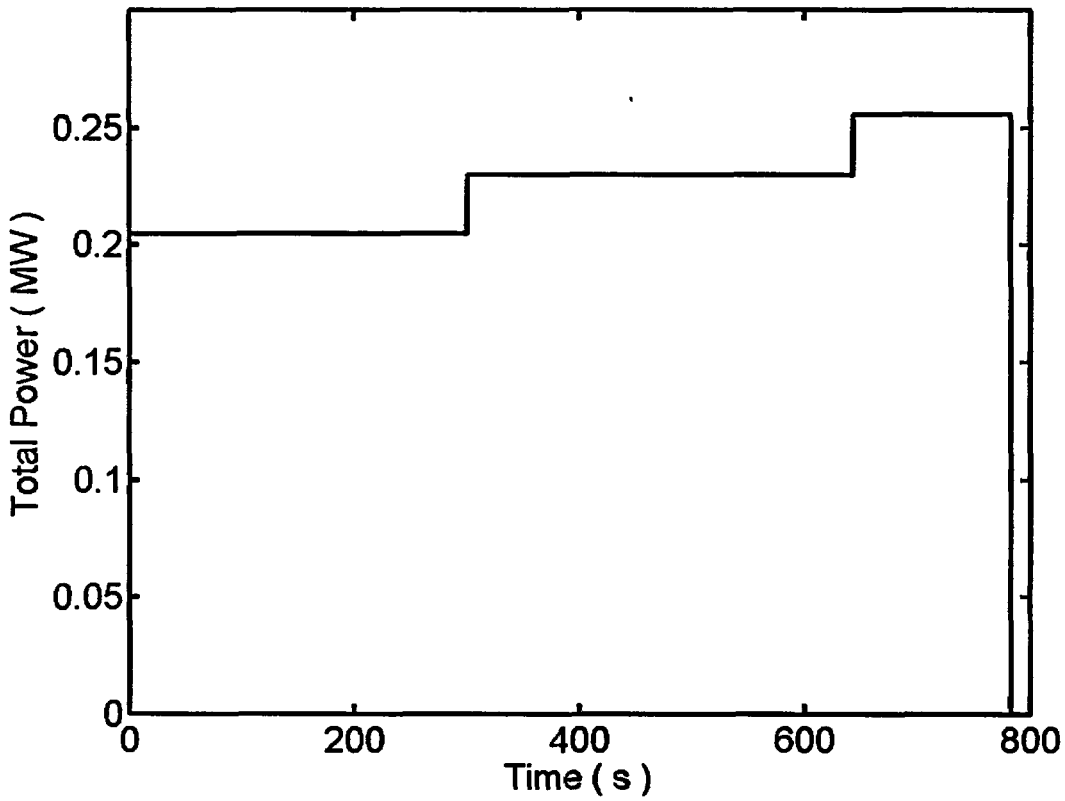

Figure A36.2. Total input power history.

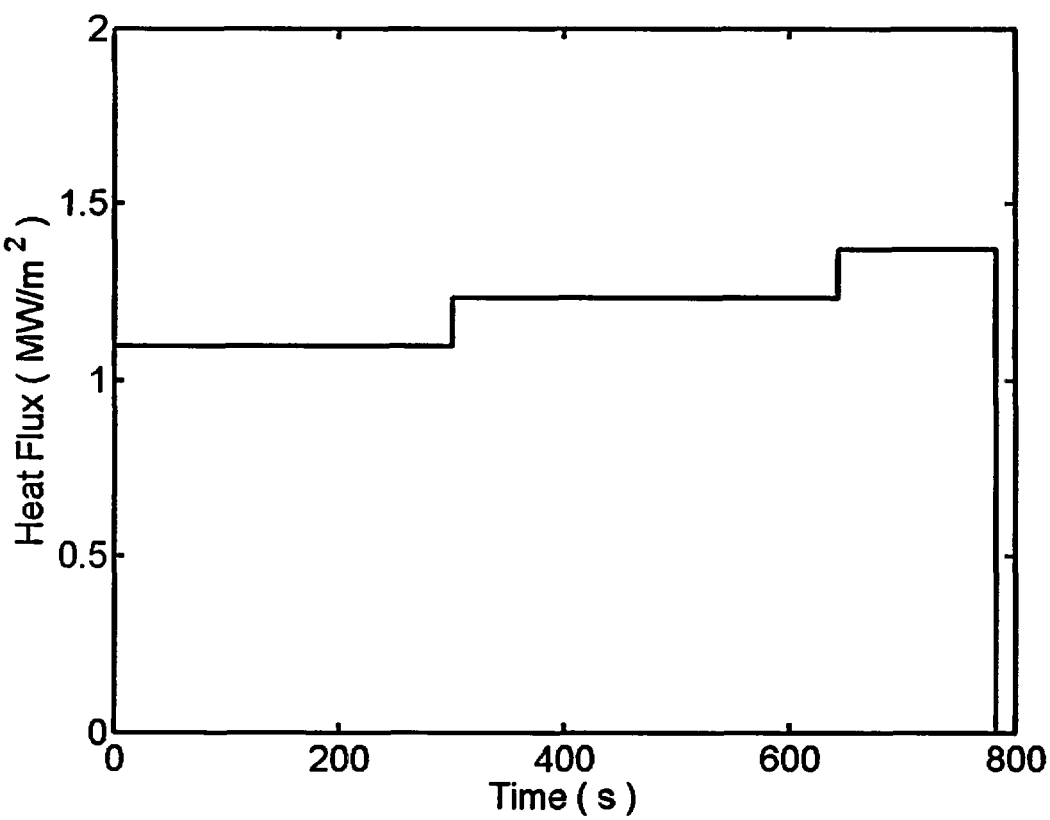

Figure A36.3. Heat flux history.

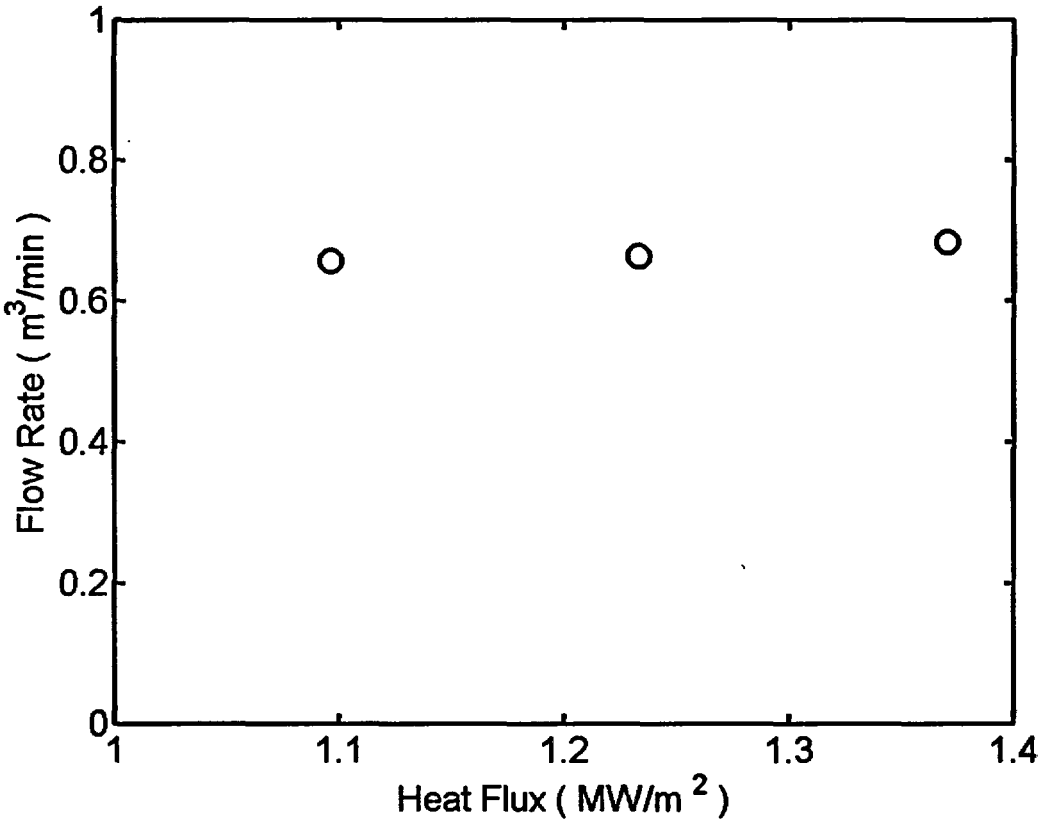

Figure A36.4. Flow rate vs. heat fluxes.

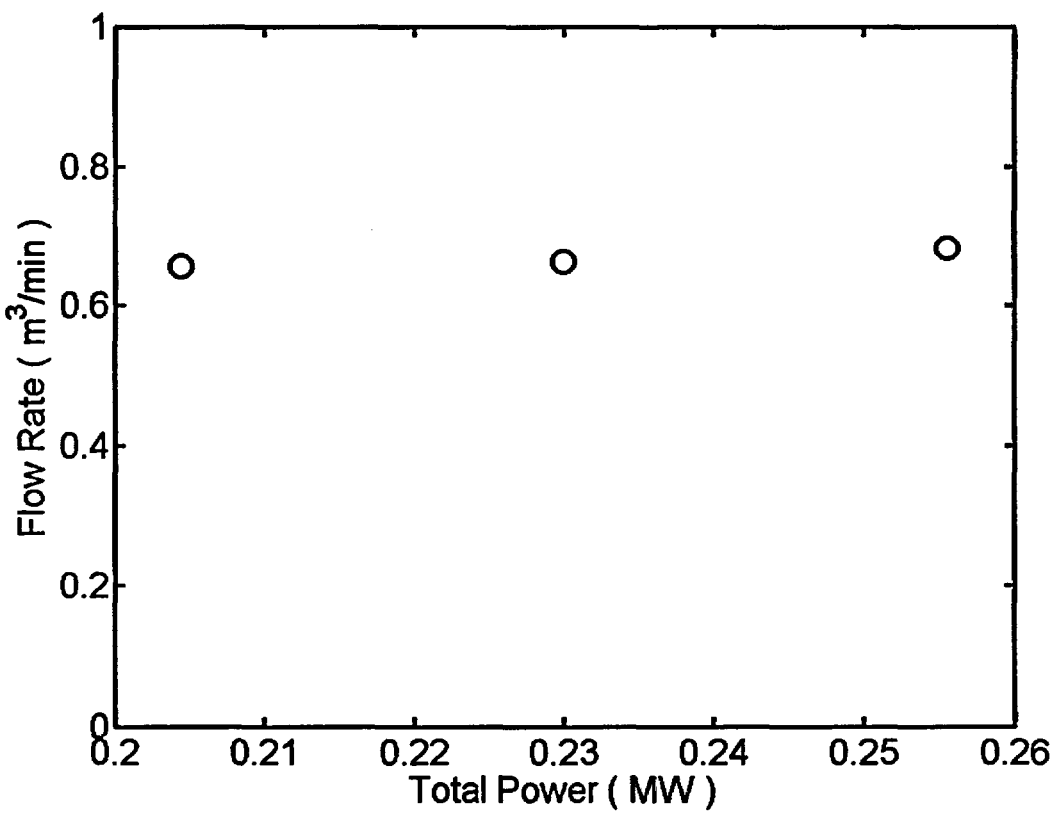

Figure A36.5. Flow rate vs. total input power.

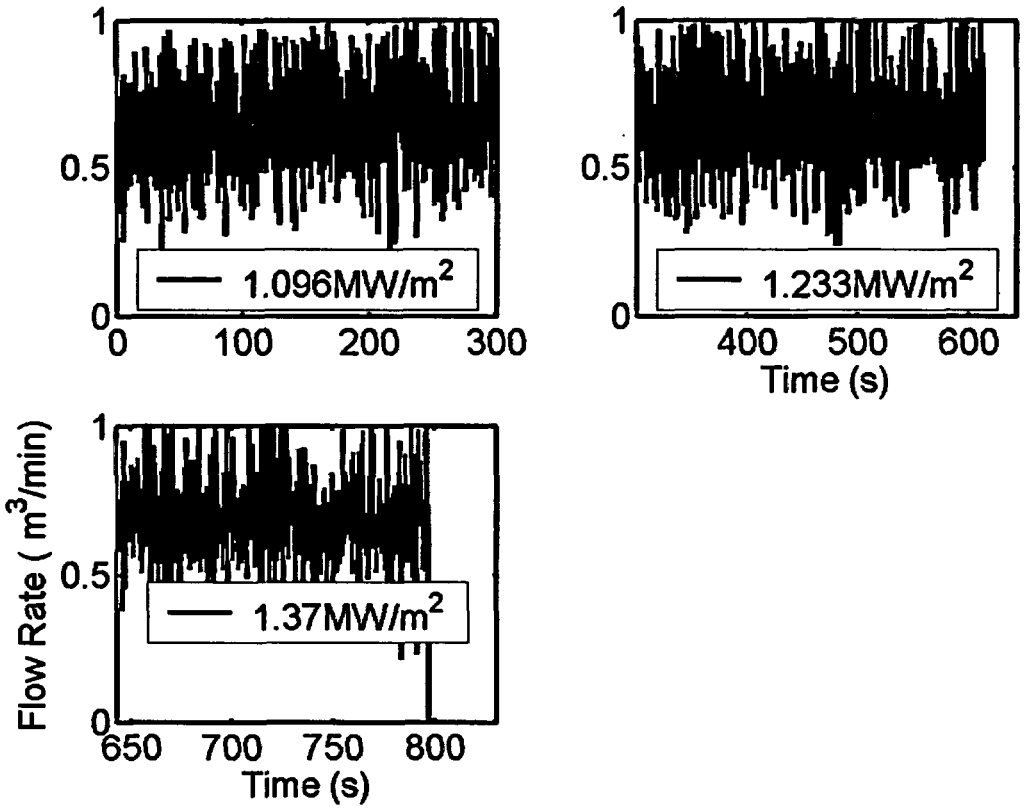

Figure A36.6. Flow rates at different heat fluxes.

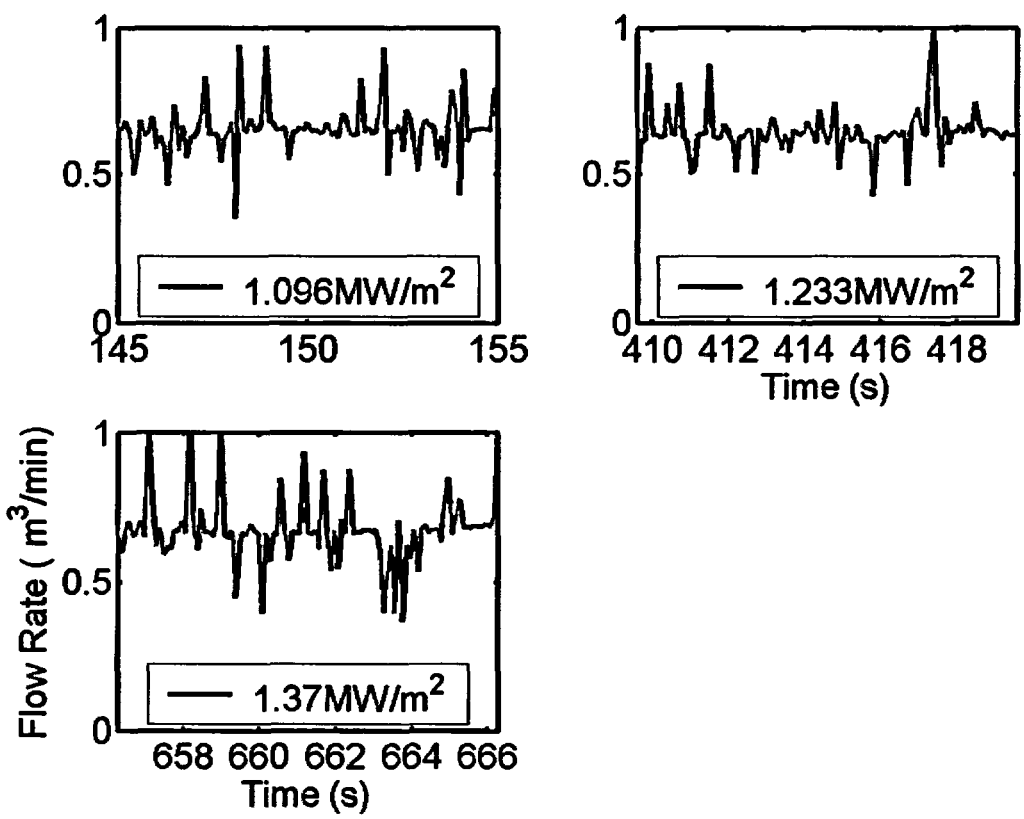

Figure A36.7. Flow rates at different heat fluxes at selected time intervals.

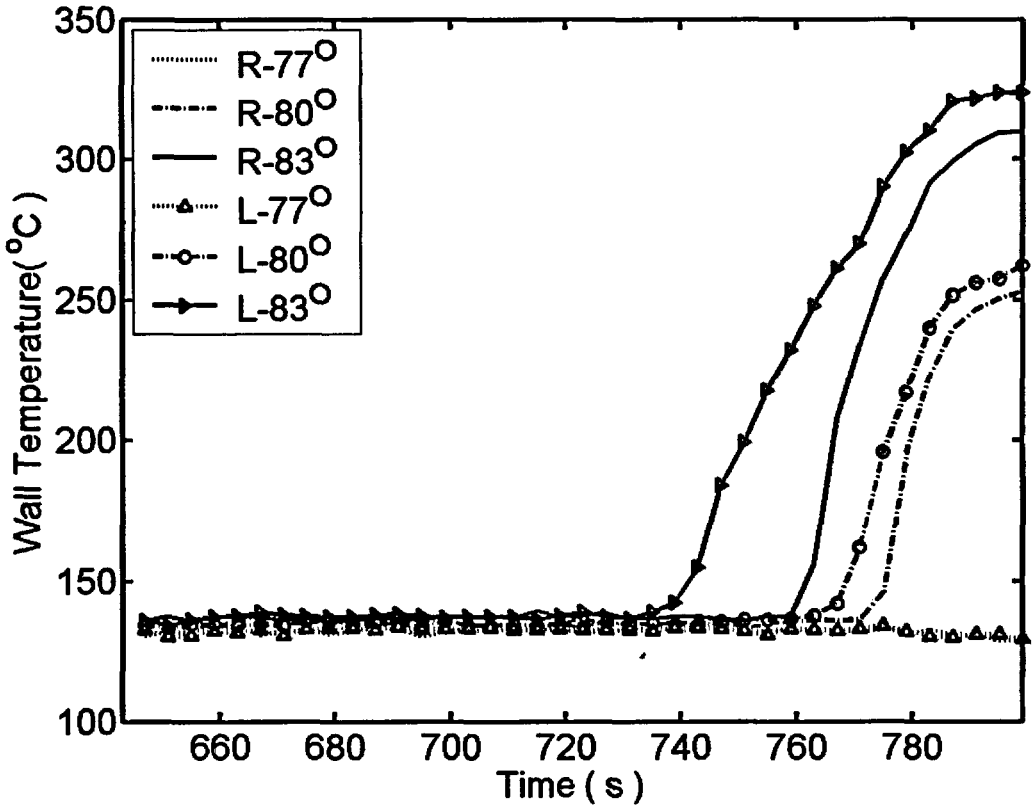

Figure A36.8. Temperature history at CHF.

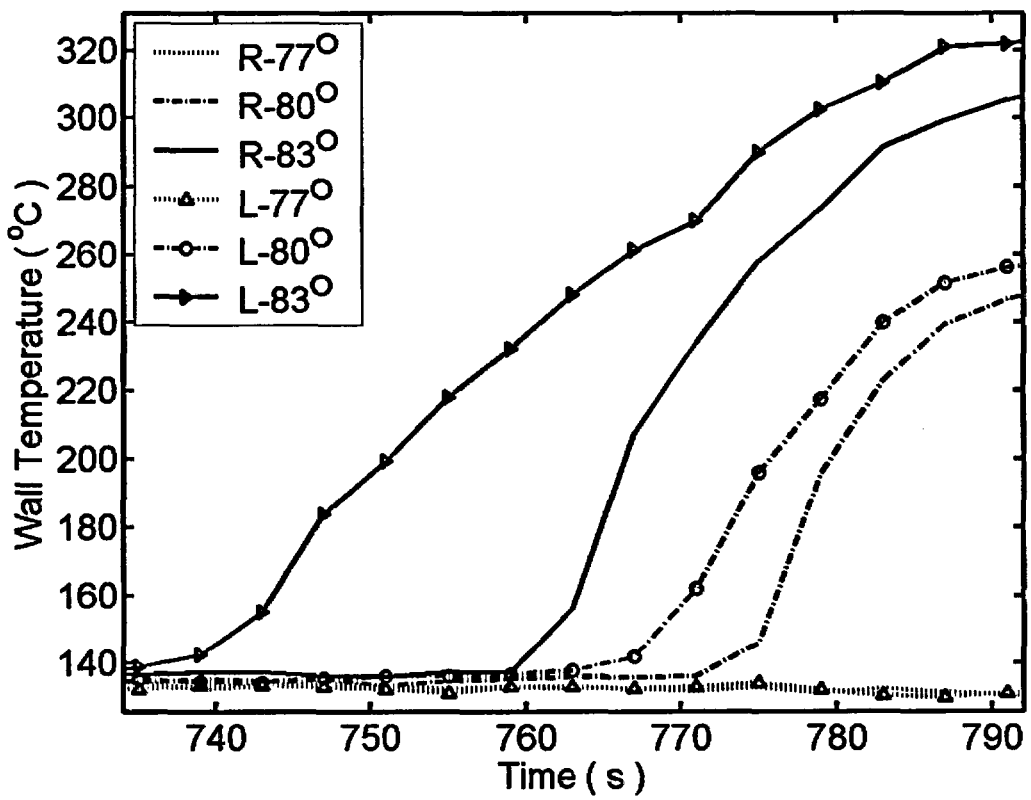

Figure A36.9. Temperature history at CHF in detail.

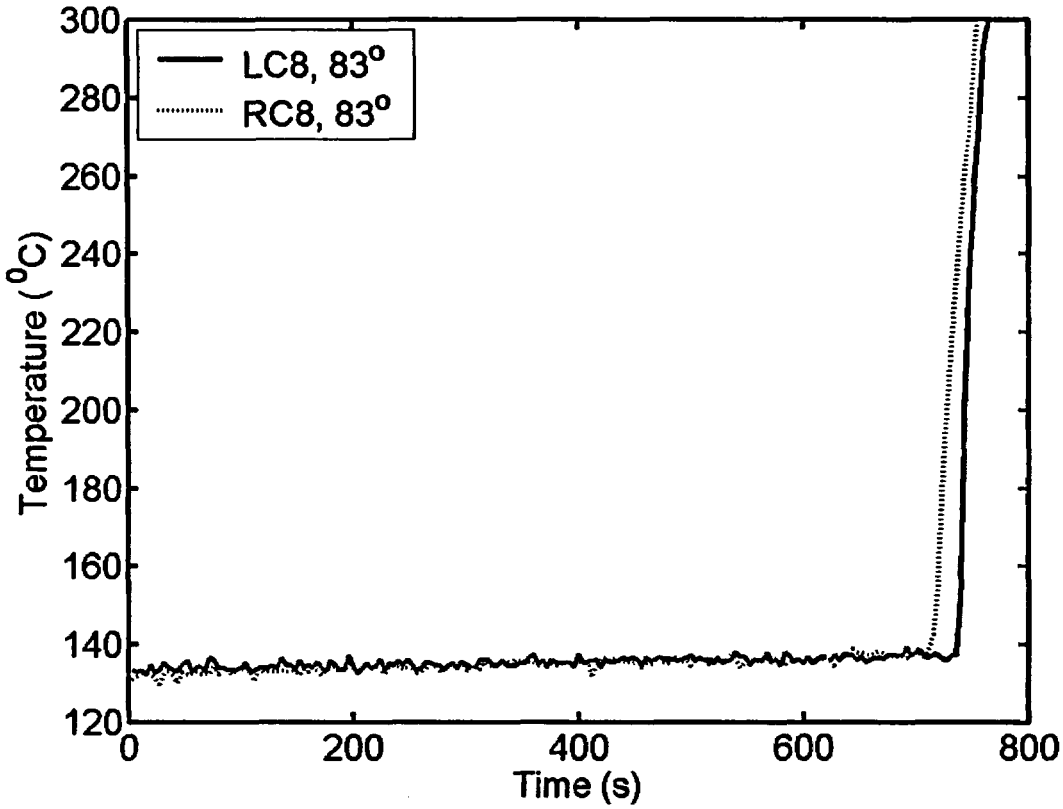

Figure A36.10 Wall temperature history measured by two thermocouples LC8 and RC8.

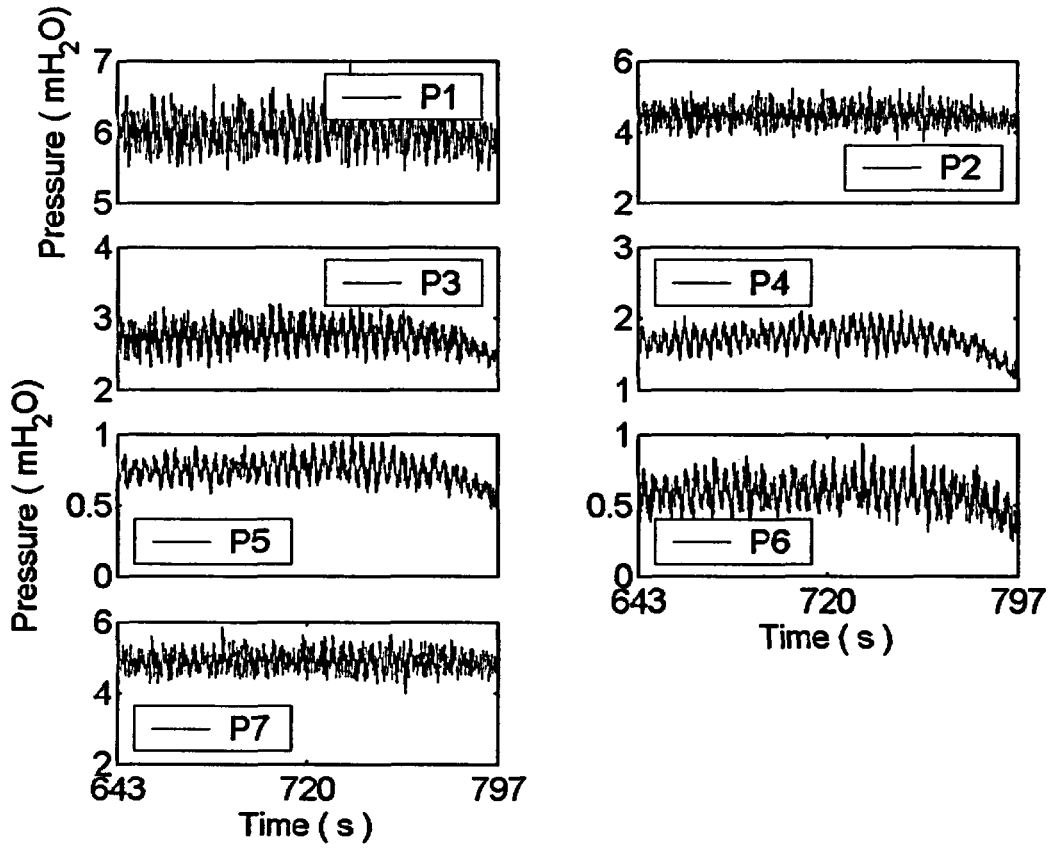

Figure A36.11. Pressure transducer data at q = 1.370 MW/m^2.

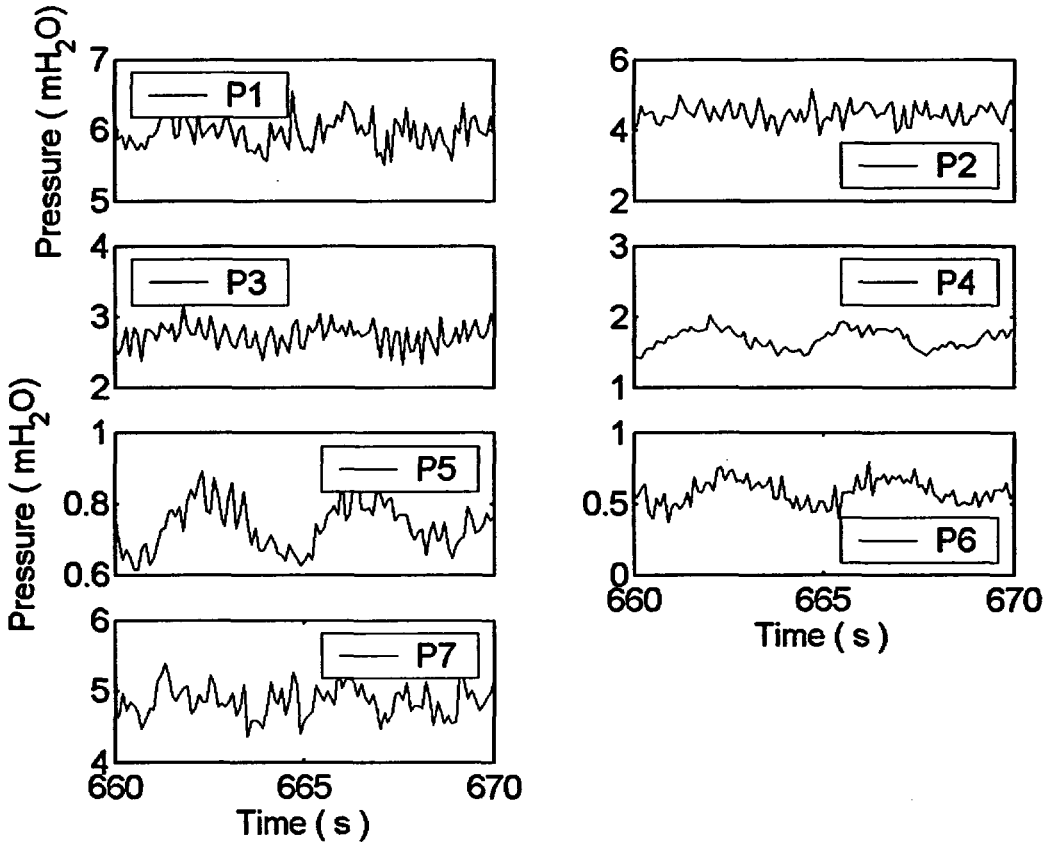

Figure A36.12. Pressure data in detail at q = 1.370 MW/m^2.

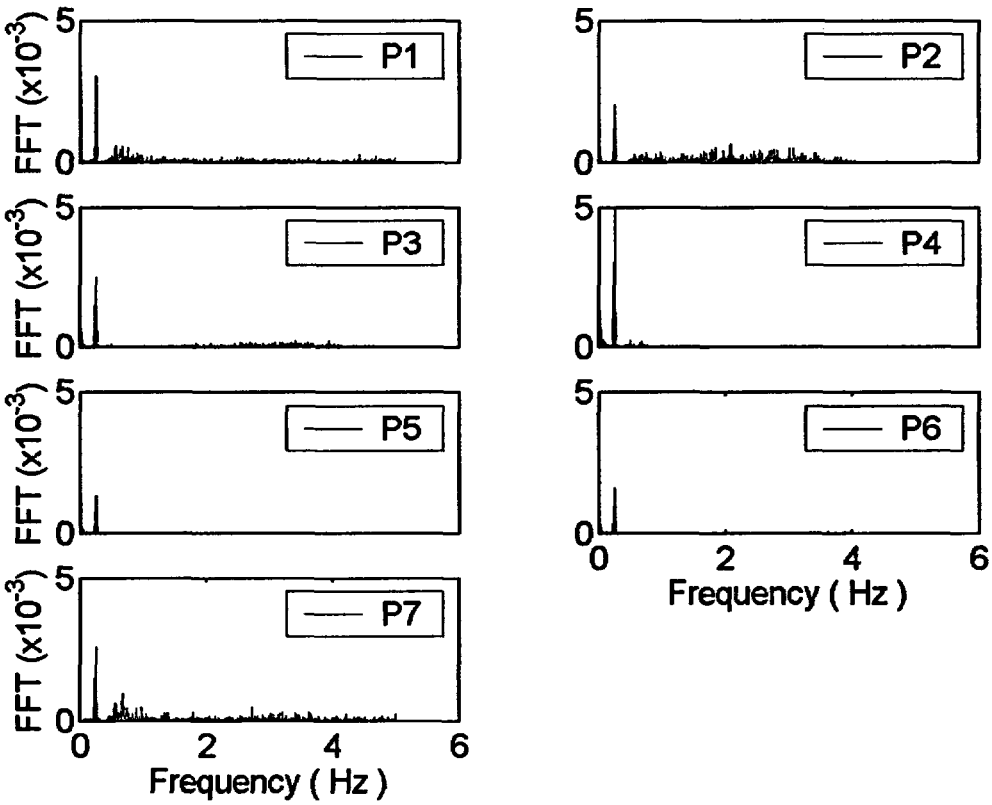

Figure A36.13. FFT of pressure time series at q = 1.370 MW/m^2.

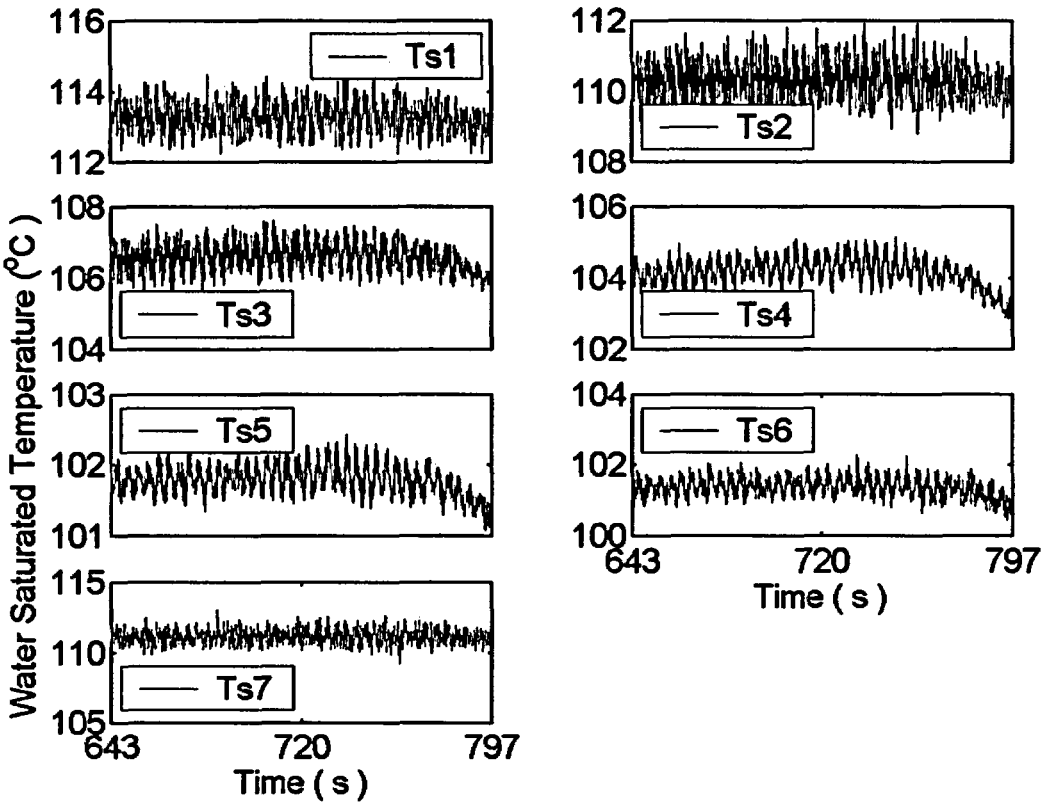

Figure A36.14. Water saturation temperature calculated from local pressure data at q = 1.370 MW/m^2.

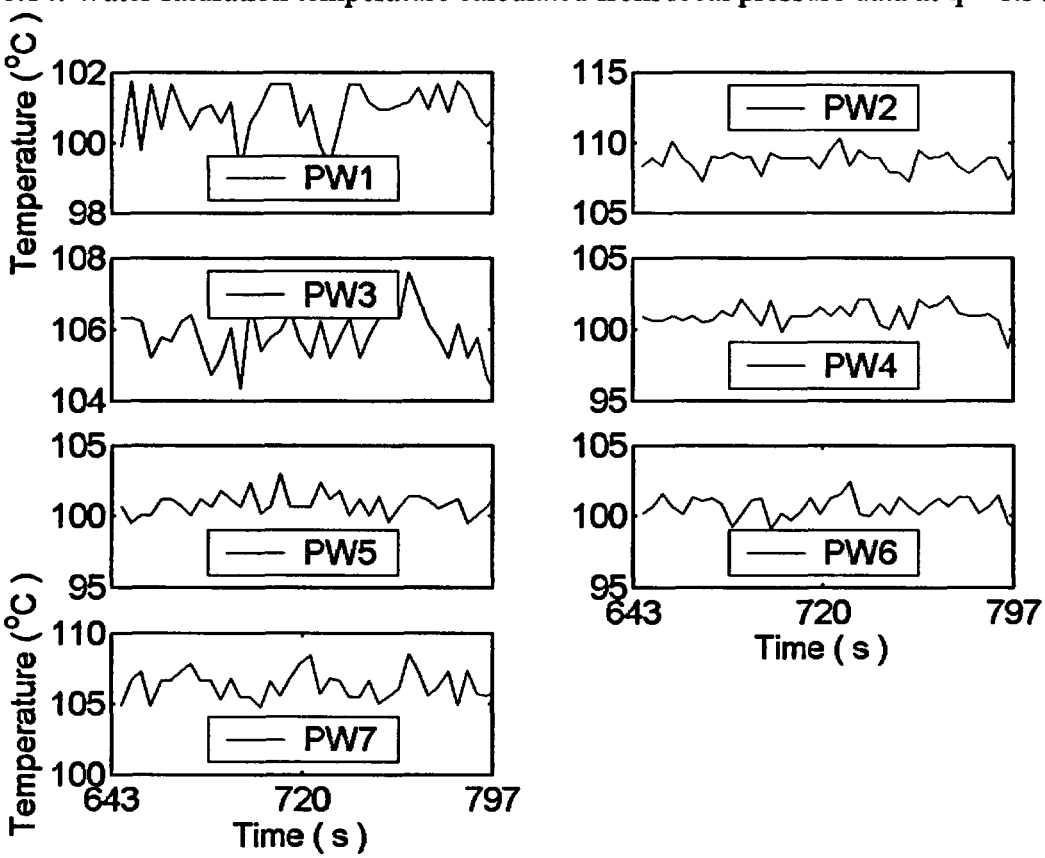

Figure A36.15. Water temperature measured at location of pressure transducer at q = 1.370 MW/m^2.

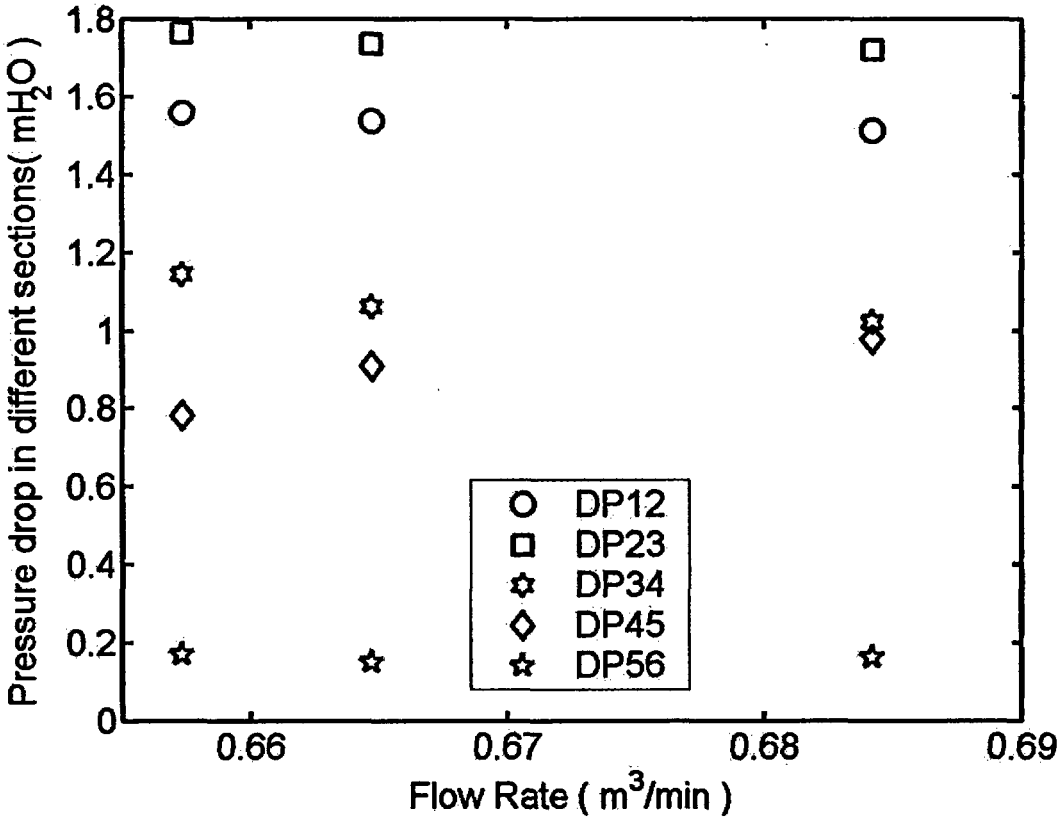

Figure A36.16 Pressure drop vs. flow rate at different heat fluxes.

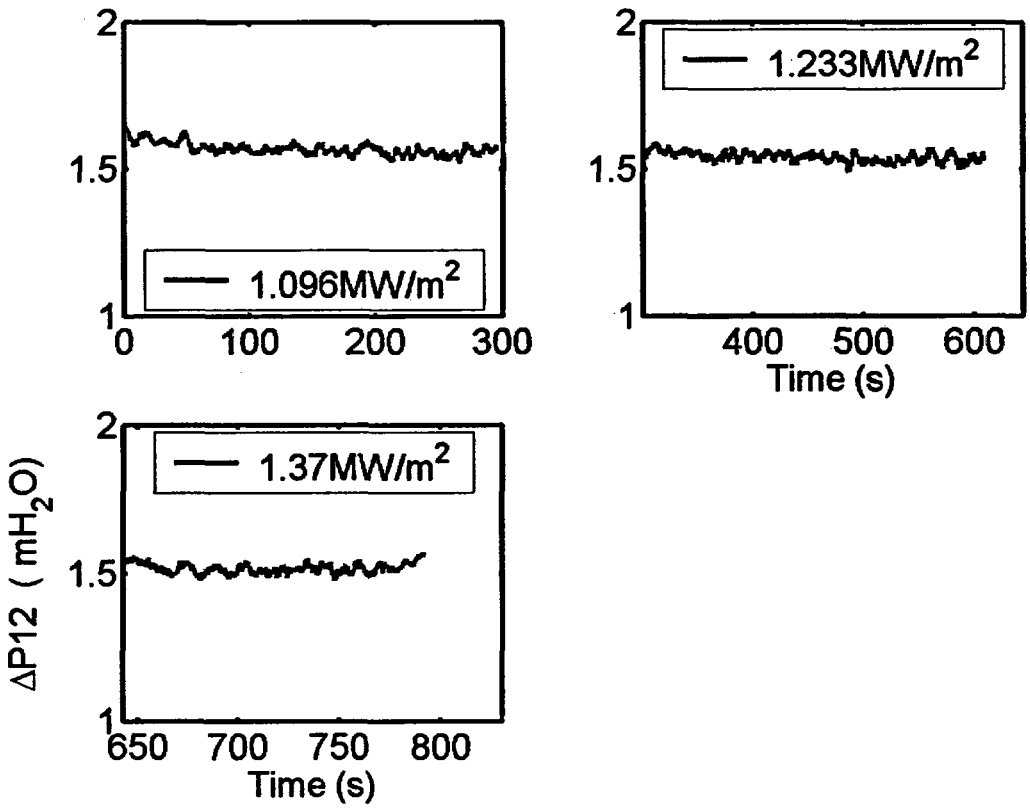

Figure A36.17. Differential Pressure ΔP12 at different heat fluxes.

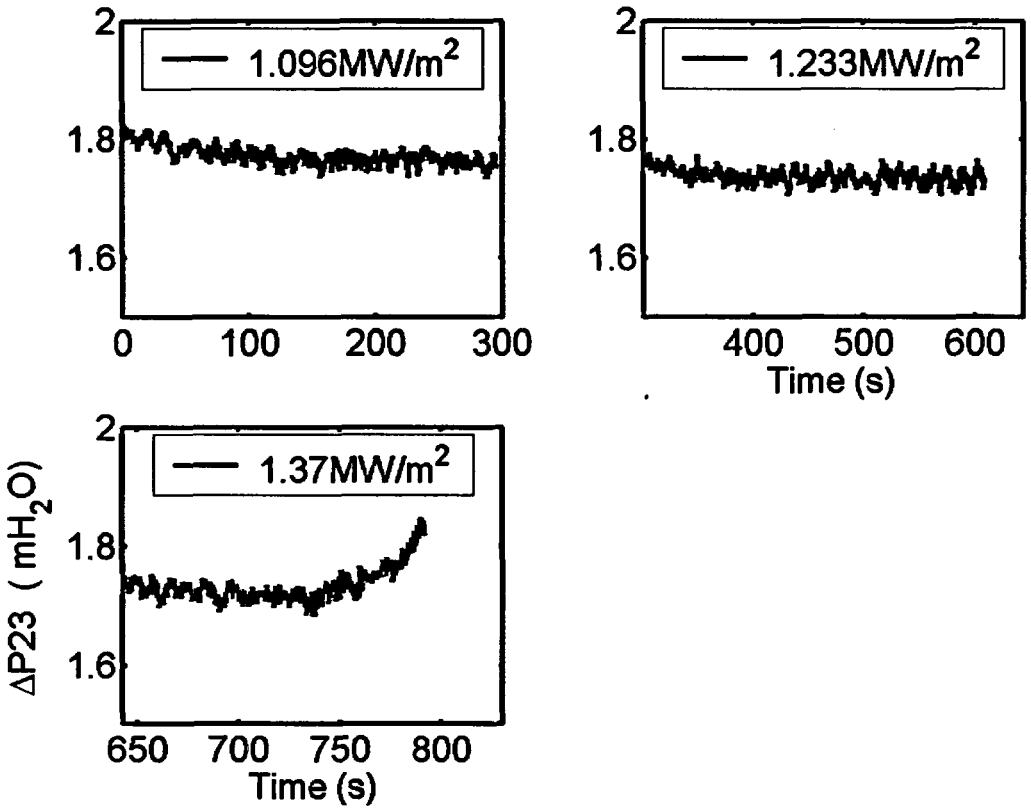

Figure A36.18. Differential Pressure ΔP23 at different heat fluxes.

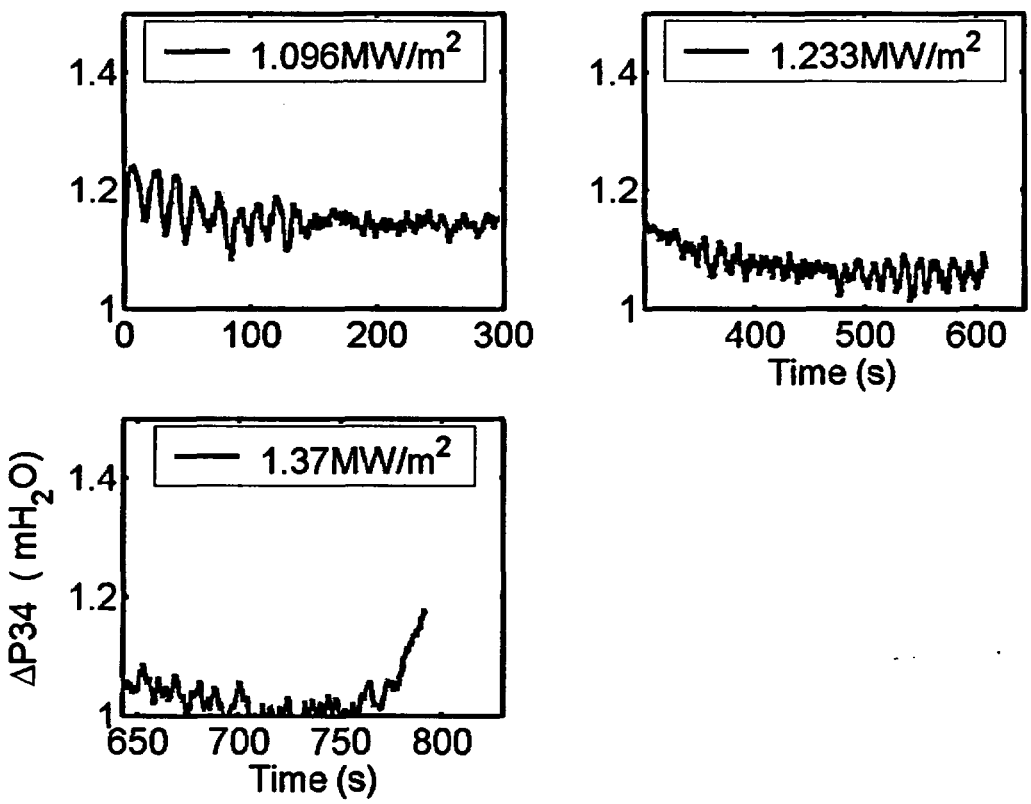

Figure A36.19. Differential Pressure ΔP34 at different heat fluxes.

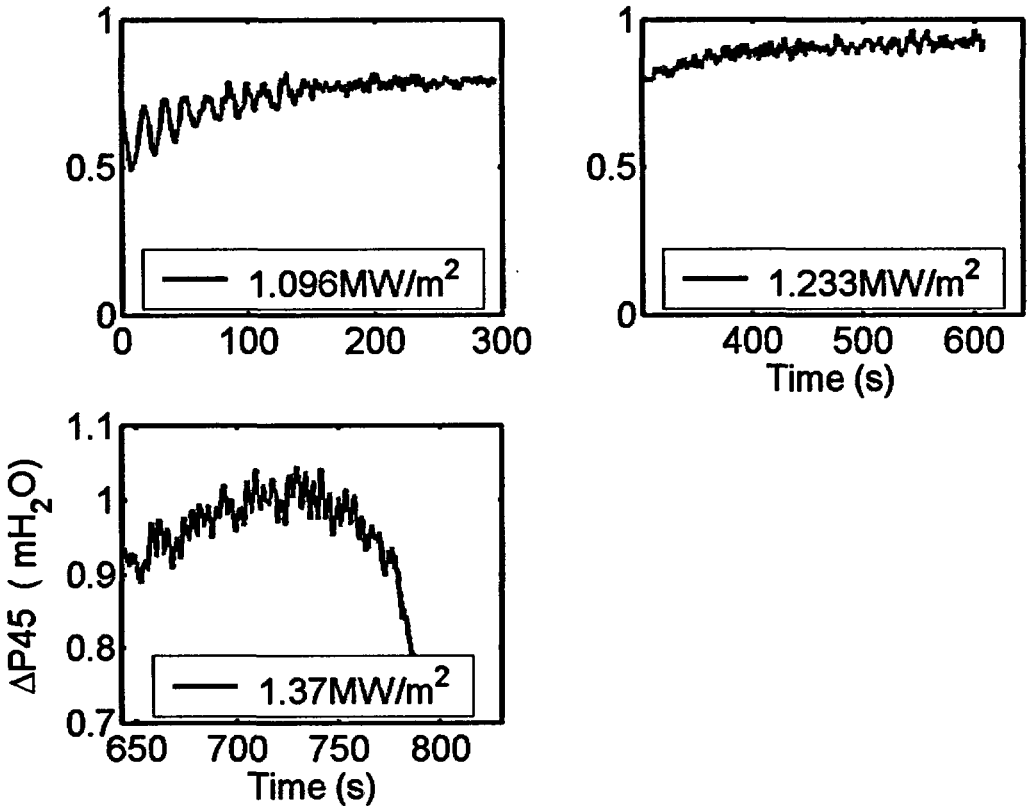

Figure A36.20. Differential Pressure ΔP45 at different heat fluxes.

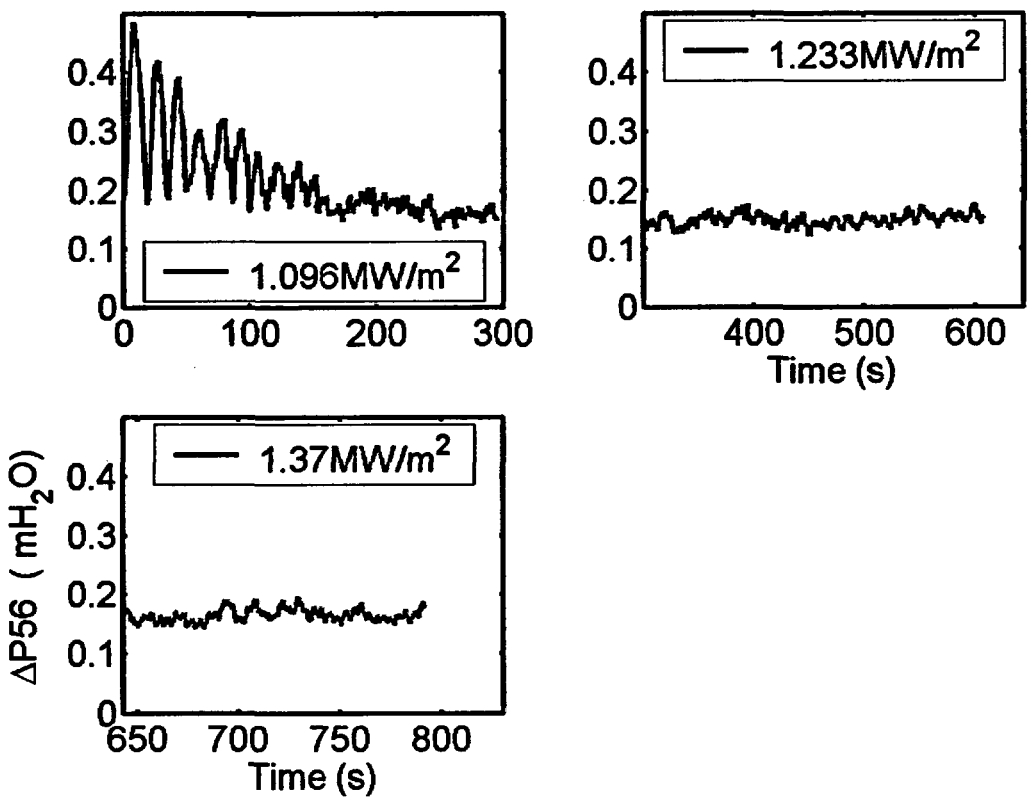

Figure A36.21 Differential Pressure ΔP56 at different heat fluxes.

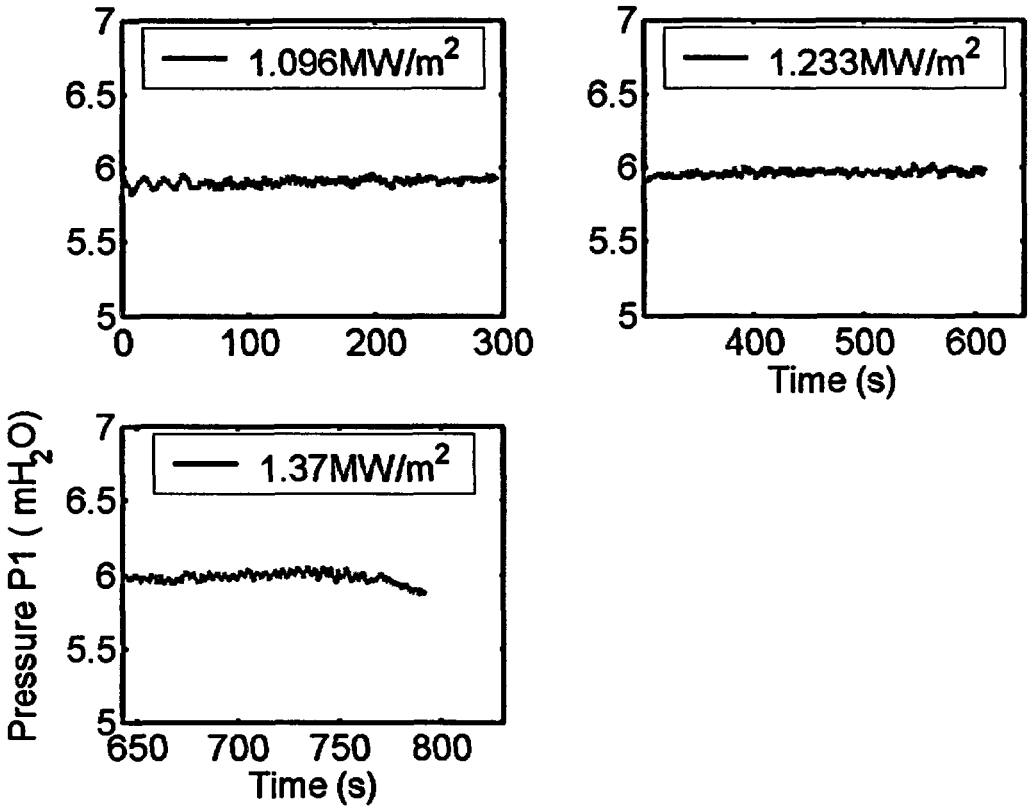

Figure A36.22 Pressure P1 at different heat fluxes.

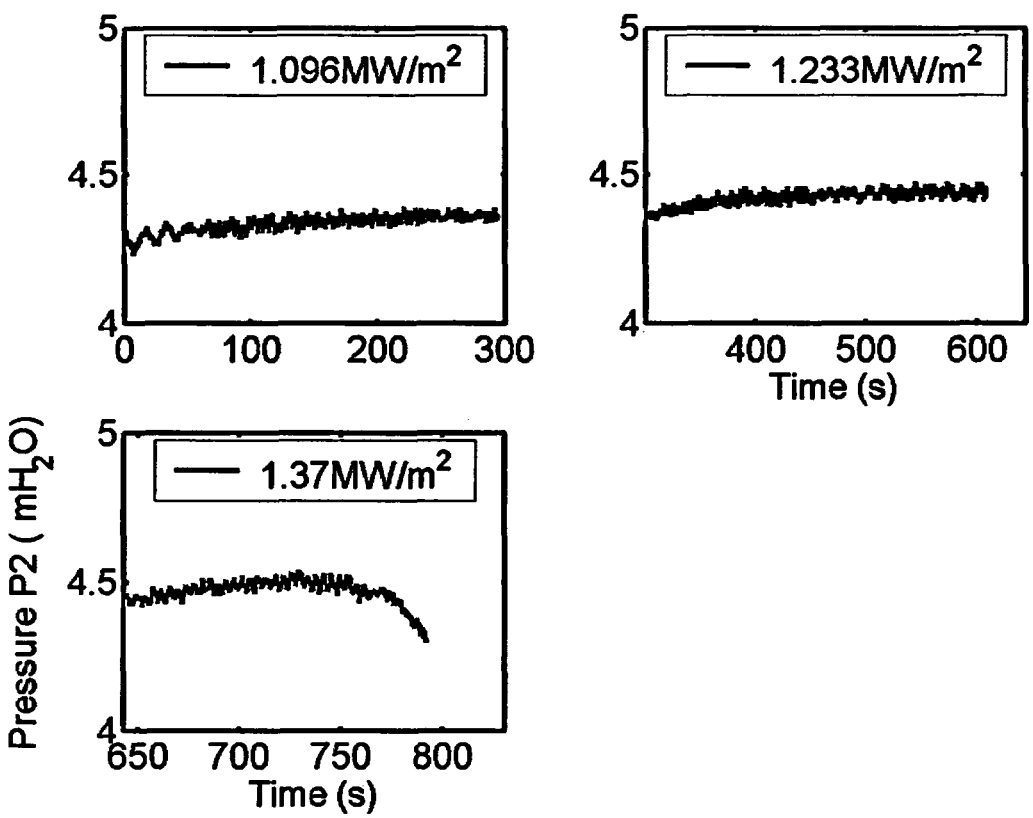

Figure A36.23 Pressure P2 at different heat fluxes.

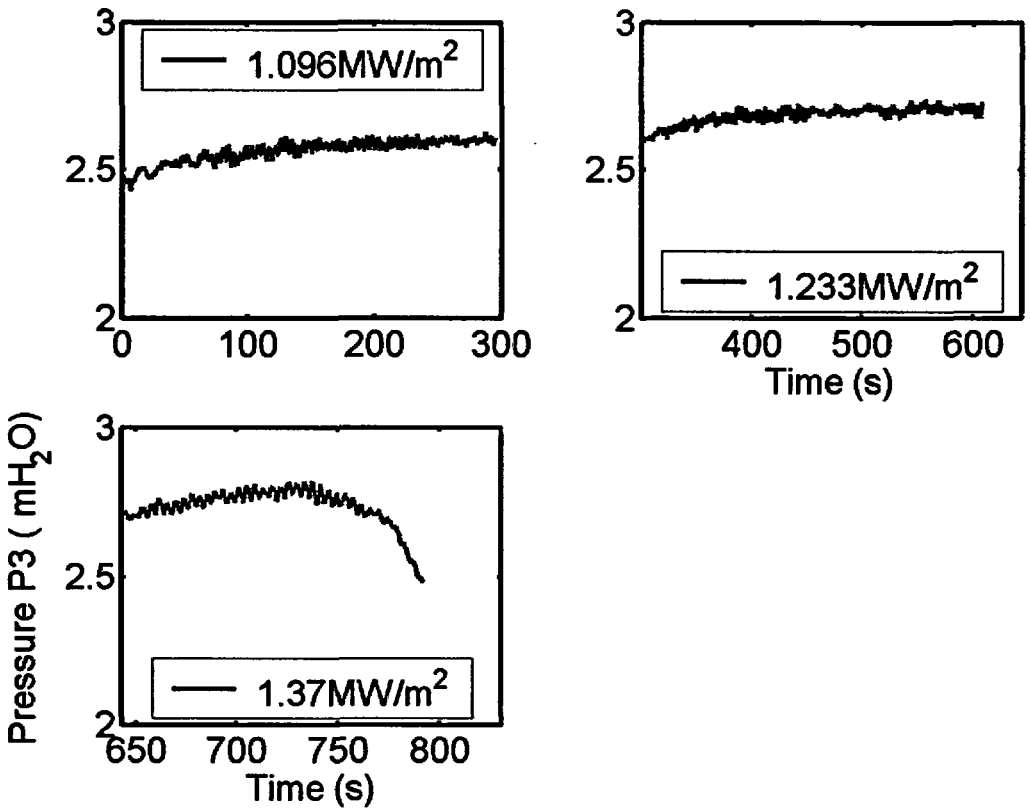

Figure A36.24 Pressure P3 at different heat fluxes.

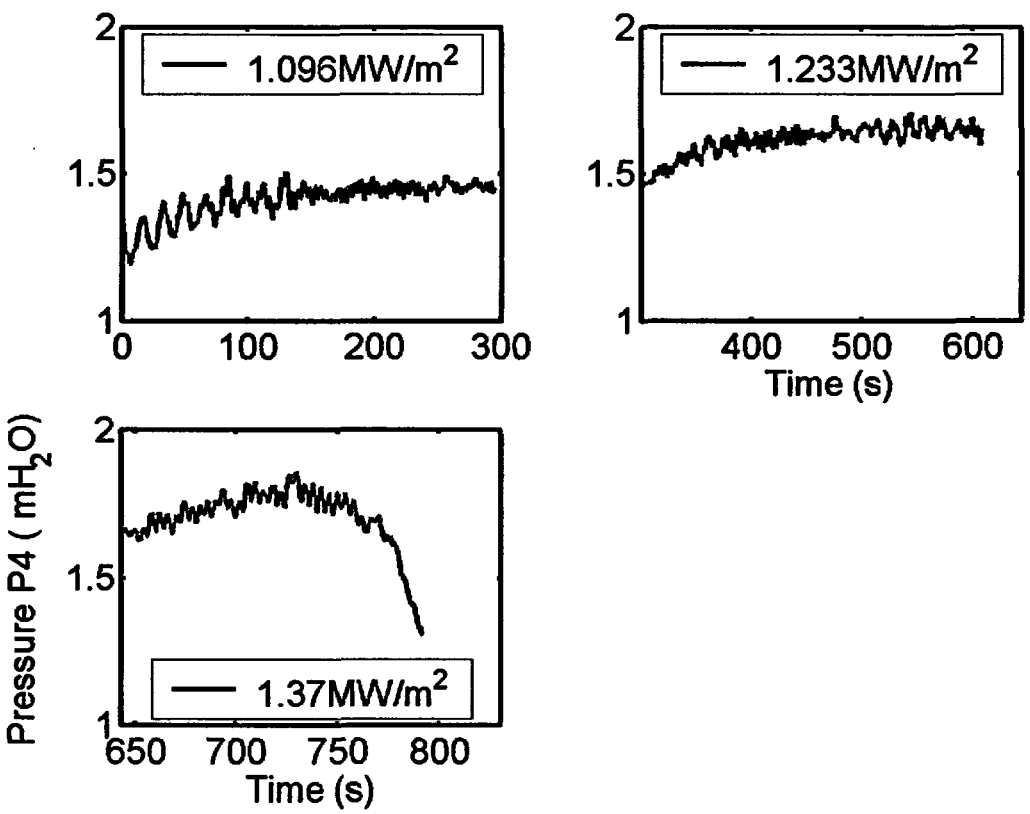

Figure A36.25 Pressure P4 at different heat fluxes.

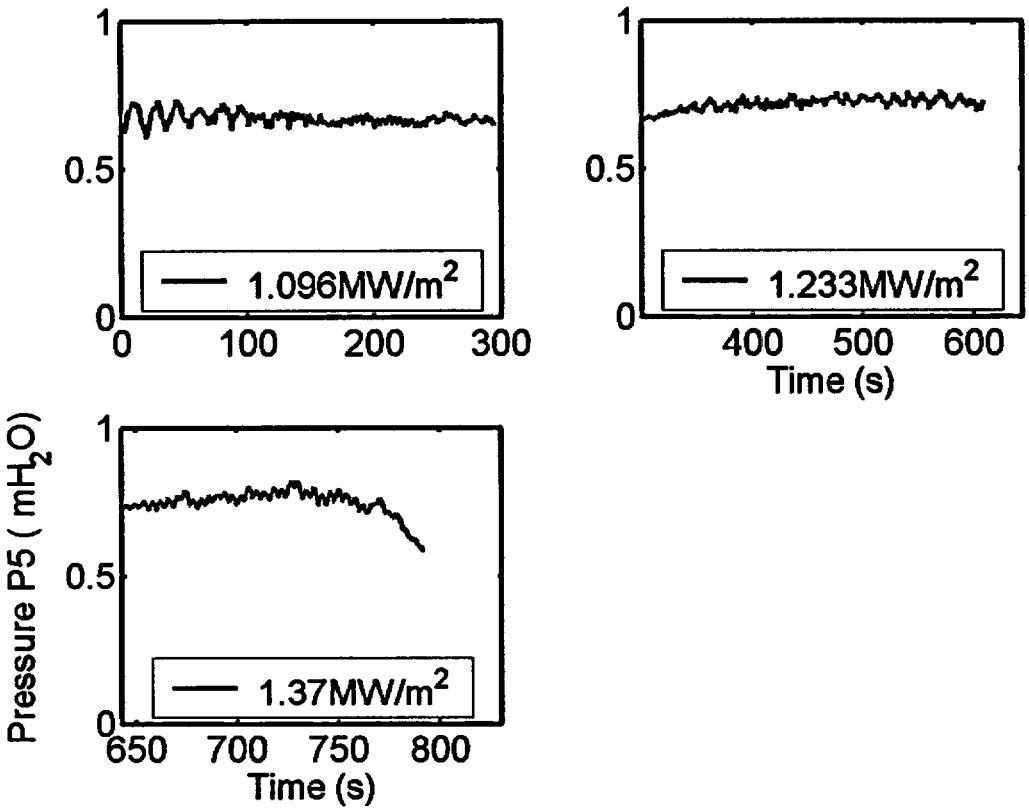

Figure A36.26 Pressure P5 at different heat fluxes.

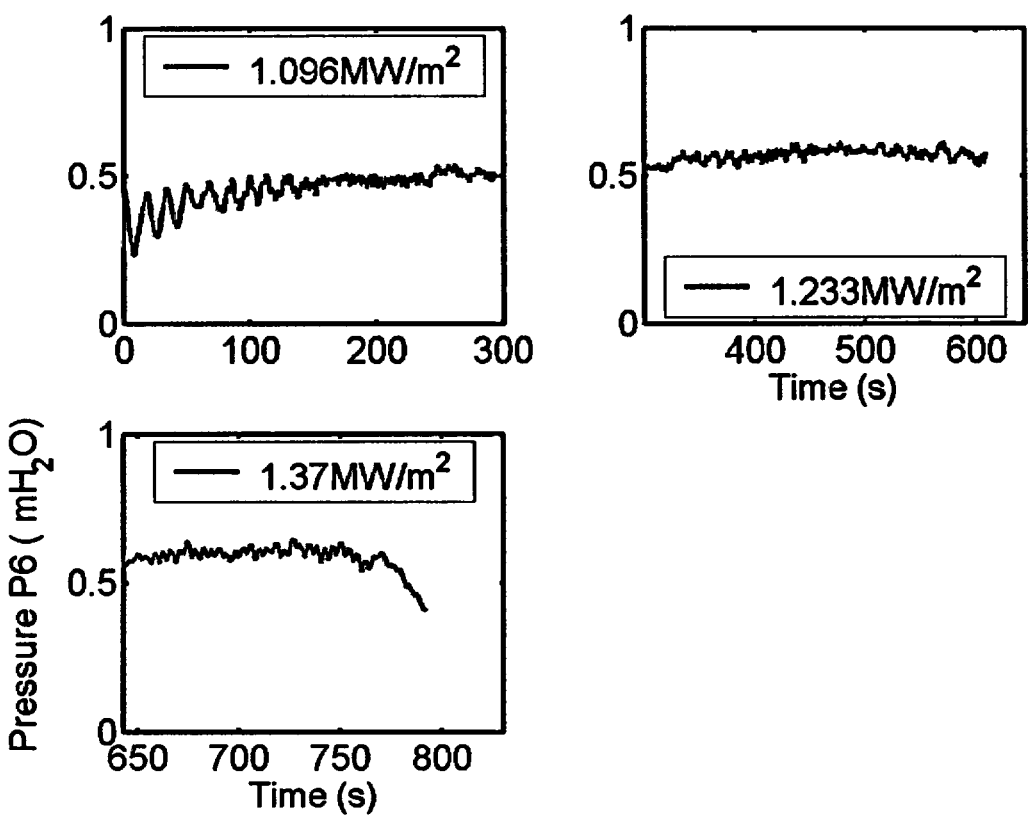

Figure A36.27 Pressure P6 at different heat fluxes.

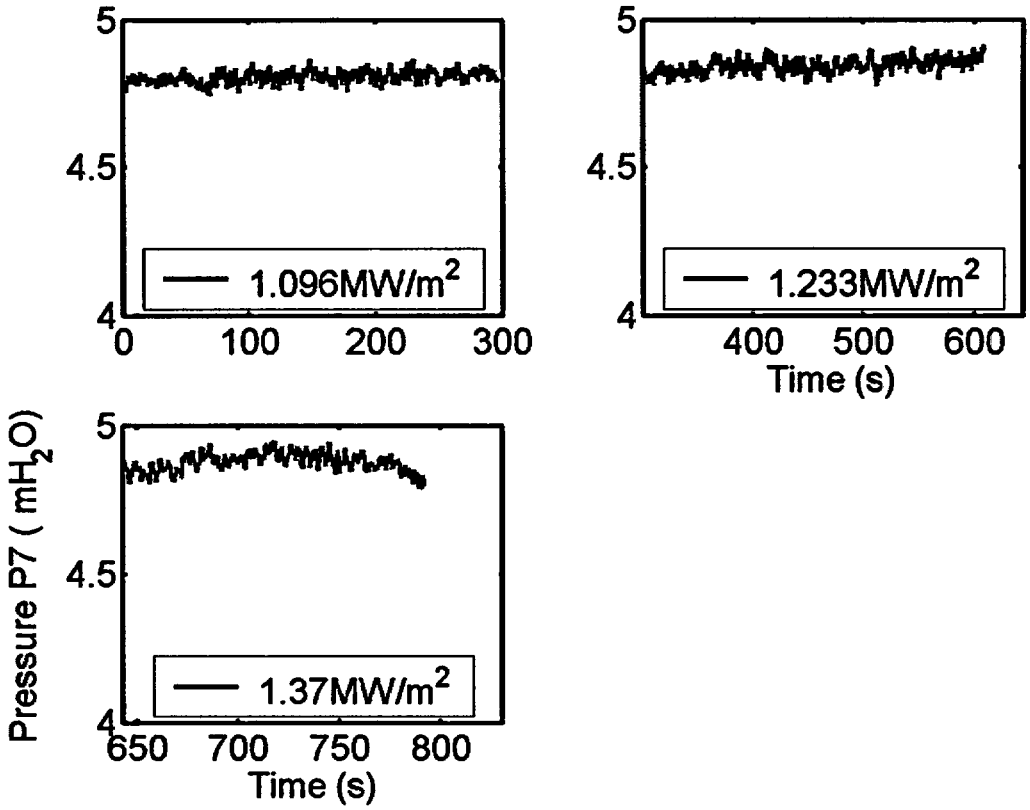

Figure A36.28 Pressure P7 at different heat fluxes.