Instruments and Precision

Measurement variables	Instruments	Model	Range	Accuracy
Chamber temperature	Relative humidity/temperature transmitter	Omega Engineering: HX94CW	0–100 °C	±0.6 °C
Chamber temperature	Quick disconnection TCs	Omega Engineering: SCPSS-062G-6		
Chamber humidity	Relative humidity/temperature transmitter	Omega Engineering: HX94CW	3–95%	±2%
Test plate temperature	PFA insulated T/Cs	Omega Engineering: 5TC-TT-T-30-72	−267 to 260 °C or −450 to 500 F	±0.5 °C
Heat flux	Thin-film heat flux sensor	Omega Engineering: HFS-4	<30,000 Btu/Ft^2-Hr	Sensitivity of 6.5 μV/Btu/Ft^2-Hr; ±0.5%
Heat flux temperature	Thin-film heat flux sensor with built-in T/C Type K	Omega Engineering: HFS-4	−200 to 150 °C or −330 to 300 F	
Mass	Digital scale	Acculab: ALC-320.3	0–320 g	±3 mg
Frost image	High-intensity illuminator	Edmund Fiber-Lite Optics: MI-150		
Frost front/side profile	5.1 megapixel CMOS color camera	BigCatch: DCMC510		

(continued)

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Measurement variables	Instruments	Model	Range	Accuracy
Frost front profile	Zoom imaging lens	Edmund Optics: VZM 450i, 4.5×		
Frost side profile	Zoom imaging lens	Navitar Zoom 7000, 6.0×, 6.4 mm; 0.5″ CCD monochrome sensor	25 frame/s	

Slumping Image

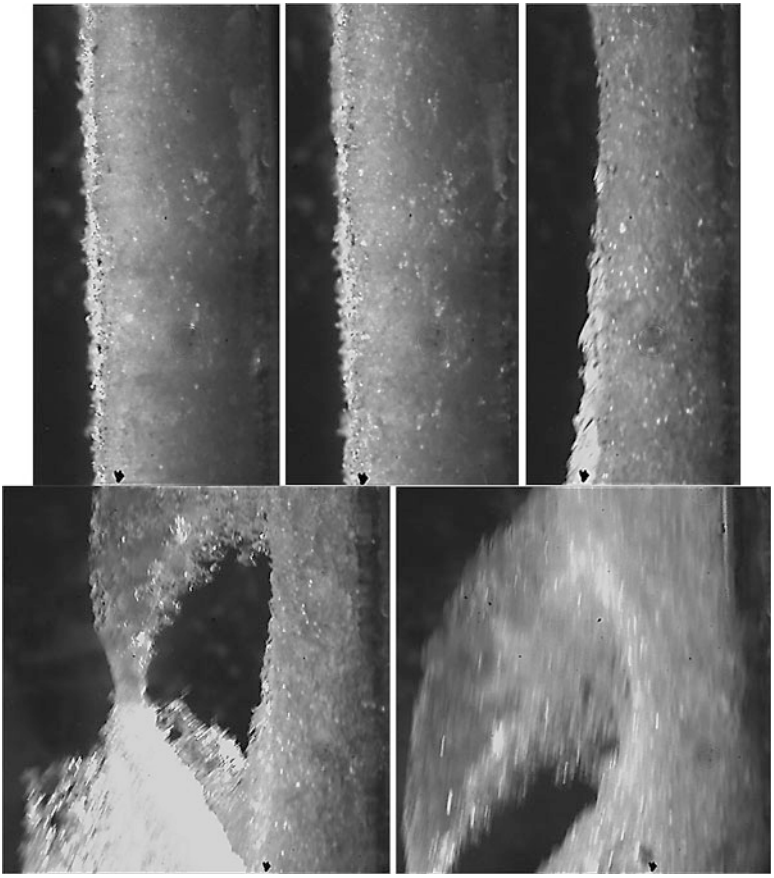

Fig. B.1 Frost slumping process after frost grows for 4 h (TestID-3)

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