A Study on the Thermal Behaviour of Micron-Sized Aluminium Powder in Contact with Water

Supporting Information

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Table S1. Fitted heat-loss correction parameters under different experimental conditions.

Variable	Water content (%)	Heating power (W)	Particle size (μm)	hA ($W \cdot K^{-1}$)	Fitting interval (s)
Particle size	20	2.5	3	0.021	3-304
Particle size	20	2.5	21	0.031	0-364
Particle size	20	2.5	47	0.029	19-379
Particle size	20	2.5	90	0.028	22-380
Particle size	20	2.5	106	0.027	0-822
Water content	50	5	106	0.053	57-439
Water content	33	5	106	0.026	124-350
Water content	25	5	106	0.026	1-297
Water content	20	5	106	0.035	76-246
Water content	17	5	106	0.031	90-232
Water content	12	5	106	0.022	108-211
Heating power	20	2.5	106	0.027	0-822
Heating power	20	5	106	0.035	76-246
Heating power	20	10	106	0.044	0-133

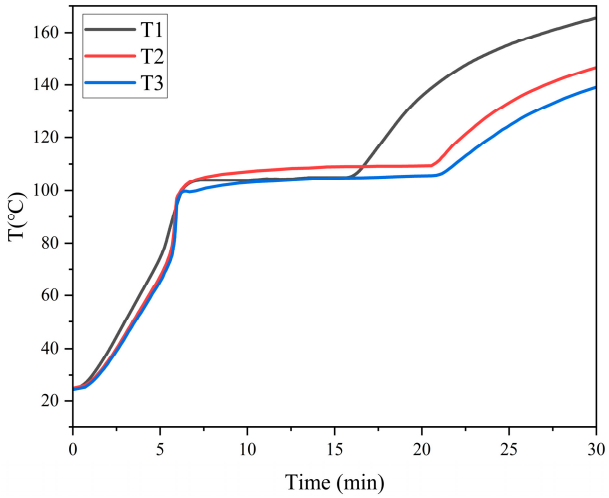


Figure S1. Temperature profiles measured at the bottom (T1), center (T2), and top (T3) positions of the aluminium-water mixture under the representative condition of 5 W heat-source power, 20% water content, and 106 μm particle size.