

Table 0.1: Experiment Nomenclature

Parameter	Abbreviation	Units
Fluid (Water)	W	
Aggregate Material or Sample	R	
Energy	Q	J
Net Energy Exchange [Source – Sink]	$Q_{net}[W - R]$	J
Time Step Energy Exchange [Source – Sink]	$Q(t)[W - R]$	J
Volumetric Heat Capacity of Fluid (Water)	Cv_W	$\frac{J}{L * K}$
Bulk Specific Heat of Aggregate	c_R	$\frac{kJ}{kg * K}$
Vessel Residency Time	t_V	s
Aggregate Bulk Specific Gravity	ρ_R	
Aggregate Bulk Thermal Conductivity	κ_R	$\frac{W}{m * K}$
Aggregate Bulk Thermal Diffusivity	α_R	$\frac{m^2}{s}$
Aggregate Mass	m_R	kg
Average Top Sensor Temperature	$T[TOP]$	$^{\circ}C$
Time Stepped Bottom Sensor Temperature	$T(t)[BOTTOM]$	$^{\circ}C$
Fluid Flow Rate (L/s)	ν_W	$\frac{L}{s}$
Top - Bottom temperature difference	$\Delta T[TB]$	$^{\circ}C$
Time Stepped $\Delta T[TB]$	$\Delta T(t)[TB]$	$^{\circ}C$
Ambient Temperature	$T[AMBIENT]$	$^{\circ}C$