

Supporting Information for “Increased Melting of Marine-Terminating Glaciers by Sediment-Laden Plumes”

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1. Table S1

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Table S1. Unprocessed measurements from laboratory experiments from which all derived quantities can be calculated. Parameters are: ambient fluid density (ρ_a), source fluid density (ρ_s), ambient fluid temperature (T_a), source fluid temperature (T_s), ambient fluid depth (H), source sediment concentration by weight (ϕ), source flow rate (Q), initial ice mass (M_i), final ice mass (M_f), and duration of experiment (t).

| Experiment | ρ_a kg m ⁻³ | ρ_s kg m ⁻³ | T_a °C | T_s °C | H m | ϕ % | Q ml s ⁻¹ | M_i g | M_f g | t min |
|------------|--------------------------------|--------------------------------|-------------|-------------|----------|-------------|---------------------------|------------|------------|------------|
| A | 1022.015 | 998.865 | 3.2 | 0.5 | 0.25 | 0.00 | 6.0 | 4260 | 4202 | 6.0 |
| B | 1021.883 | 998.787 | 3.0 | 0.5 | 0.26 | 0.00 | 6.0 | 4186 | 4120 | 6.0 |
| C | 1022.235 | 998.765 | 3.1 | 1.2 | 0.26 | 1.00 | 6.0 | 4308 | 4236 | 4.5 |
| D | 1021.987 | 998.656 | 3.0 | 0.9 | 0.26 | 0.50 | 6.0 | 4254 | 4186 | 4.5 |
| E | 1022.264 | 998.6 | 3.0 | 0.7 | 0.27 | 0.25 | 6.0 | 4322 | 4260 | 4.5 |
| F | 1022.060 | 998.6 | 3.0 | 1.0 | 0.27 | 0.75 | 6.0 | 4390 | 4316 | 4.5 |
| G | 1022.585 | 998.6 | 3.2 | 0.7 | 0.27 | 1.25 | 6.0 | 4170 | 4094 | 4.5 |
| H | 1021.935 | 998.861 | 3.1 | 1.0 | 0.26 | 1.50 | 6.0 | 4328 | 4262 | 4.5 |