

Supplementary information

Common feedstocks of late accretion for the terrestrial planets

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Common feedstocks of late accretion for the terrestrial planets

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Supplementary Figures 1 | Various parameters used for iSALE-3D simulations

Model parameters

Cells per projectile radius (CPPR)	20
Gravity (m/s ²)	0.22
Mantle thickness (km)	170
Core radius (km)	110
Impact velocity (km/s)	3; 5; 10
Impactor diameter (km)	1- 64

Description	target mantle & impactor	target core
Equation of state	Dunite ANEOS*	Iron ANEOS†
Melt temperature at zero pressure (K)	1373‡	1,811§
Constant in thermal softening law	2.0‡	2.0§
Constant in Simon approximation (GPa)	1.4‡	107§
Exponent in Simon approximation	5.0‡	1.76§
Poisson's ratio	0.25	0.30§
Cohesion (damaged) (MPa)	0.01¶	-
Coefficient of internal friction for material (damaged)	0.6¶	-
Limiting strength at high pressure (damaged) (GPa)	3.5¶	-
Cohesion (intact) (MPa)	50¶	100§
Coefficient of internal friction for material (intact)	1.5¶	-
Limiting strength at high pressure (intact) (GPa)	3.5¶	-

* See *ref.* 128;

† See *ref.* 104;

‡ See *ref.* 107;

¶ See *refs.* 103, 129 and *references therein* for a description of the strength model parameters and their implementation in iSALE;

§ See *ref.* 103 and *references therein* for a description of the strength model parameters and their implementation in iSALE.