

ANEOS for Iron, after Thompson & Lauson (1972), with modifications (Canup & Asphaug 2001).

Number	Meaning/Symbol	Value (cgs ; temperature in eV)
V1	Number of elements	1
V2	Switch for type of EOS	4 solid-liquid-gas w/ detailed treatment of liquid-vapor region
V3	Reference density (ρ_o) in g/cm ³	7.85
V4	Reference temperature (T_o). If equal to zero, it's set to the default value of 298 K.	0
V5	Reference Pressure (P_o) (normally zero)	0
V6	Reference bulk modulus (dyne/cm ²)	1.45×10^{12}
V7	Gruneisen gamma (γ)	1.69
V8	Reference Debye temperature (θ), if this value is negative, code sets $\theta=0.025$	-0.0400
V9	TT	0.0
V10	3x limiting value of Gruneisen γ for large compression	2.
V11	Zero temperature separation energy	8.2×10^{10} erg/gram
V12	Melting temperature	0.15588 eV = 1807 K
V13	Parameter to adjust critical point	0
V14	Parameter to adjust critical point	0
V15	Thermal conductivity coefficient (if zero, thermal conduction is not included)	0
V16	Temperature dependence of thermal conduction coefficient	0
V17	Minimum density (ρ_{\min}). If $\rho_{\min}=0$, code sets $\rho_{\min}=0.8\rho_o$	0
V18	Solid-solid phase transition parameter D1	0.0
V19	“ “ D2	0.0
V20	“ “ D3	0.0
V21	“ “ D4	0.0
V22	“ “ D5	0.0
V23	Heat of fusion for melting	2.471×10^9
V24	Ratio of liquid to solid density at melting point. Because V24 and V23=0, V24=0.95	0.955