

Errata: Thermodynamics in Earth and Planetary Sciences

(To be updated as new errors are detected)

Page No/location	Printed as	Read as/correction
p. 6, para 2, l. 3 l. 8	$F\cos < 0$ for values ... Fig. 1.1	$F\cos\theta < 0$ for θ values Fig. 1.2
p. 18, l. 4 from bottom	$1 \text{ J} = 1.602 \times 10^{-19} \text{ eV}$	interchange J and eV
p. 25, para 2	$t^\circ \text{ C}, 400^\circ \text{ C}$	$t^\circ \text{ C}, 400^\circ \text{ C}$
p. 27, below Eq. (2.4.5)	Eqs. and (2.4.6)	Eqs. and (2.4.5)
p. 32, l. 4	do not	does not
p. 44, Eq. (2.7.7)	$(\delta w^+)_{\text{rev}} > (\delta \omega^+)_{\text{rev}}$	$(\delta w^+)_{\text{rev}} > (\delta w^+)_{\text{rev}}$
p. 66, Problem (3.3), l. 2 Hint:	metal cylinder go from there.	thick metal cylinder go from there, neglecting the effect of P on H.
Answers	(a) 237 K (b) 6.59 kJ/mol	(a) 218 K (b) 6.86 kJ/mol
p. 71, line after Eq. (3.9.3)	Since dV is an exact..	Since dV is an exact differential
p. 98, last para, l. 4	...also a great solvent..	..also as a great solvent...
p. 110 l. 2 below Eq. (5.4.13)	kb-cm^2 and kb-cm^m	bar-cm^3 and bar-cm^m
p. 120, last line	Eq. 5.4.27	Eq. 5.4.17
p. 130, Eq. (6.4.6)	$VP(\Delta_r\alpha)$	$T\Delta_r(V\alpha)$
p. 135, l. 2	... lower mantle	... upper mantle
p. 139, Eq. (6.7.2)	$T\Delta_r S(1, T')$	$T'\Delta_r S(1, T')$
p. 144, last line	Eq. (6.7.13)	Eq. (6.7.12)
p. 145, l. 2 below section heading	function of pressure	function of volume
p. 162, para 2, l. 4	$C_p' = 1214 \text{ kJ}\cdot\text{kg}^{-1}\text{K}^{-1}$	$C_p' = 1.214 \text{ kJ}\cdot\text{kg}^{-1}\text{K}^{-1}$
p. 163, Fig. 7.7 caption l. 2	The upper mantle solidus	The lower mantle solidus
p. 169, Fig. 7.10: caption line below figure	... in a one-component lower entropy	...in an one-component higher entropy
p. 171, above Eq. (7.5.9)	Substituting of the ...	Substituting the
p. 177, 2 nd line after unnumbered equation	$\Delta V_1 = - m_1 v'_1$	$\Delta V_1 = - m v'_1$
p. 182, Eq. (7.7.5a)	W^-	δw^-
p. 195, Problem 8.2	$h_i = \mu_i - Ts_i$	$h_i = \mu_i + Ts_i$
p. 211 (Fig. 8.10) & p. 215 (Fig. 8.11)	Henry's's law	Henry's law
p. 217, para 1, l. 2	as result	as a result

p. 218, para 1, l. 2	$w_{\bullet} \propto (X_{w_{\bullet}})^2$	$f_{w_{\bullet}} \propto (X_{w_{\bullet}})^2$
p. 220, l. 3	activity equal its fugacity	activity (numerically) equal ..
p. 228, after Eq. (8.12.4a)	Equation (8.12.1)	Equation (8.12.2)
p. 239, section 8.16.1, l. 3	field is uniform	field potential is uniform
p. 240, Eq. (8.16.1) left side & l. 4 below Eq. (8.16.3)	F	F'
p. 243, para 2, l. 3	relatively important ..	relatively unimportant....
p. 268, Eq. (9.2.32)		multiply denominator by $(a_1 + a_2)$
p. 269, Eq. (9.2.33)		replace b_j by a_j
p. 271, last equation	(9.3.34)	(9.2.34)
p. 285, para 1, end	closed become	closed system become ...
p. 287, Eq. (10.3.4)	+ P	- P
p. 291 Eq. (10.4.10b)	$\partial(1/T)$	$\partial(1/T)$
p. 294, l. 5 below Eq. (10.5.1)	activity ..equals its..	activity..(numerically) equals its
p. 295, l. 9 after section heading	moles such species	moles of such species
p. 296, l. 5	Eq. (7.3.3)	Eq. (7.2.3)
p. 301, Eq. (10.5.14), (10.5.15)	T_{\max}	T_{extm}
l. below	T_{\max}maximum	T_{extm}extremum
p. 302 l. 7	$v_2 > 0$	$v_j > 0$
p. 304, Eq. (10.5.1)	C_2	C
p. 305 para 1, 3 rd l. from end	magma compositions	volatile compositions
p. 306 l. 3	ΔH_m°	ΔH_m°
p. 309, line after Eq. (10.6.8)	H_A^s	X_A^s
p. 310, Fig. 10.10: caption	Tuttle	Tuttle
p. 311	$\Delta H_{m(\text{Fo})}^\circ = 92.173 \text{ kJ/mol}$	$\Delta H_{m(\text{Fa})}^\circ = 92.173 \text{ kJ/mol}$
p. 339, l. below Eq. (10.13.5)	Eqs. (10.13.2), (10.3.3)	Eqs. (10.3.1), (10.3.2)
p. 345, l. 8 (end)	wheras	whereas
l. 11 (end)	larger mass	smaller mass
p. 355, para 2, l. 4	$a_i \propto [i]$ write in a solvent	$a_i \propto [i]$ in a solvent
p. 358, Fig. caption, end	solidud	solidus
p. 381, Eq. (12.5.2)	+ $v_{\cdot}(\mu_{\cdot}^x)$	- $v_{\cdot}(\mu_{\cdot}^x)$
p. 390, Eq. (12.8.b)	3 SiO(aq)	3 SiO ₂ (aq)
p. 457, Eq. (B.3.5)	M_i and M_j	N_i and N_j

Author Index:

Ghiorso (add p. 114 to the list)

Li J. (add p. 156 to the list)

Fei, Y. (add p. 156 to the list)