

## CORRECTIONS

page	line	should read
4	12 ↓	(at 1414°C)
23	Fig.1.2.8	interchange subscripts of $\alpha_L, \alpha_S$
37	end of §2.1.B	add: Let us also observe that the incompatibility of the initial and boundary data forces a discontinuity at the origin which the solution accomodates by an infinite initial speed of the interface.
38	equ.(25)	$\dots 0 \leq \zeta \leq \Sigma(Fo), \quad Fo \geq 0,$
39	7 ↓	$\dots$ material with rather high specific heat. In $\dots$
39	9,10,11 ↓	$\dots T_m = 1996 \text{ K} \quad \dots \bar{c} = 1.12 \text{ kJ/kg K} \quad \dots L = 158 \text{ kJ/kg.} \quad \dots St = 12.$
41	12 ↓, 3 ↑	$\dots$ affect the process $\dots \alpha_L \dots = 1.348 \times 10^{-3} \dots$
45	18 ↓	$c_S \approx 2 \text{ J/g K}, k_S \approx 0.023 \text{ J/cm s K}$ , hence $\alpha_S = 0.0125 \text{ cm}^2/\text{s}$ . You $\dots$
47	Fig.2.2.1	interchange subscripts of $\alpha_L, \alpha_S$ , delete vertical line and boundary condition at $x = l$
48	end of §2.2.A	add: As in the 1-phase case, we observe that the interface starts off with infinite speed, accomodating the discontinuity at the origin arising from the incompatible initial and boundary conditions.
54	9 ↓	$\hat{\tau} \ll \tau^*$ , the melting curve at $\zeta^* = 0.2$ would change concavity but at a very early time.
57	2 ↓	$h'(x) = e^{x^2} \psi(x) > 0$ for $x > 0$ .
62	below (3b), 14 ↑	$\dots -\rho_S c_S [T(X(t), t) - T_m] = \rho_L L, \quad \dots$ this term is expected to be
69	5 ↑	$\dots \rho_L L X' \dots$
76	equ.(41),(42)	$\rho_L L X' + \frac{1}{2} \rho_L \dots \quad \rho_S L X' - \frac{1}{2} \rho_S \dots$
76	9 ↓	Note that in (40) and (42), $\dots$
80	2 ↑	$\dots$ (Figure 1.1.2) $\dots$
81	12 ↓	$\dots$ see [CHADAM-RASMUSSEN, 1993] for $\dots$
84	14 ↑	$\dots T_S \leq T_m \dots$
88	8 ↑	$\dots$ considerations. (delete "leading to (17) again")
88	6 ↑	$\dots$ to be $(1 - \rho_L / \rho_S) X_\infty$ or $(1 - \rho_S / \rho_L) X_\infty$ respectively, see $\dots$
91	equ.(34)	$\frac{d}{dT} \Delta s = \left( \frac{\partial \Delta s}{\partial T} \right)_P + \left( \frac{\partial \Delta s}{\partial P} \right)_T \frac{dP}{dT} = \dots$
95	equ.(53a),(53b)	$\dots = T_m + g_S y + \dots \quad \dots = T_m + g_L y + \dots$
95	2 ↑	$\dots = \dots = -k_L \dots$
96	equ.(56), 11 ↑	$\Lambda(\omega) = \omega [\Gamma \omega^2 (k_L + k_S) + \Gamma \omega V_0 \rho \Delta c + \dots] \quad \dots$ delete the inequality : ( $\omega^2 > \dots$ )
115	1 ↓	It can be $\dots$ to give ( delete "(PROBLEM 10)" )
144	equ.(1a)	$\dots = k_L \dots$
153	3 ↑, 2 ↑, 1 ↑	constant speed of $10 \text{ cm/s} \dots \quad \dots$ [use $v = 0.01 \dots \quad \dots$ 18 minutes $\dots$ ]
155	equ.(3b)	$\dots, \dots, \Sigma(\tau) = X(t) / \hat{x}$
160	2 ↑	delete " $c = c_L / c_S$ "
161	equ.(28c)	replace $\varepsilon \delta c$ by $\varepsilon(k-1)$
166	equ.(15)	denominator: $5 + 2S\mathbf{t}_L + \dots$
166	Table 3.4.2	replace top five entries of last two columns by 0.107E-06 0.107E-06 -0.624E-07 -0.680E-07 0.109E-06 -0.678E-07 0.191E-05 -0.368E-05 0.576E-04 -0.116E-03
169	equ.(4b)	in the denominator, replace upper case "L" by lower case "l"
177	12 ↓	$\dots$ (PROB.14)
189	10 ↓	$\dots$ §4.1.G).
193	15 ↓	<b>local truncation error:</b> $\dots [u(x_j, t_n)]$
200	equ.(52)	$E_{ijk}^{n+1} = \dots$
208	19 ↑, 8 ↑, 7 ↑	$\dots T(x, t) = \exp(-\pi^2 \alpha t / l^2) \cdot 100 \cos(\pi x / l), \quad \dots$ repeating (b) $\dots \quad \dots$ from (b).
220-2		in captions of Fig.4.3.1(a),(b), Fig.4.3.4(a),(b): replace $x = .3$ by $x = 0.2$
224	equ.(24)	numerator of first fraction: $u_{j-1}^{n+1} - u_j^{n+1}$
225	6 ↓	$(E - \rho L) / \rho c_L, \quad \rho L \leq E$ (liquid).
239	13 ↑, 7 ↑	$\dots$ At some point either $\dots \quad \dots$ a slab $-l_w \leq x \leq l \dots$
254	2 ↓	$\dots - H\phi_t - \operatorname{div}(\phi \nabla u) + \dots$
255	10 ↑	$N_t^\Sigma = \dots, \text{ and } \vec{N}_x^\Sigma = \dots$
305		ALEXIADES, V. and J.B. DRAKE, "..." in <i>Free boundary problems involving solids</i> , ... (1993).
307		CHADAM, J.M. and H. RASMUSSEN, "Free boundary problems involving solids," ... (1993).