Errata
Theory of Dislocations, 3rd ed.
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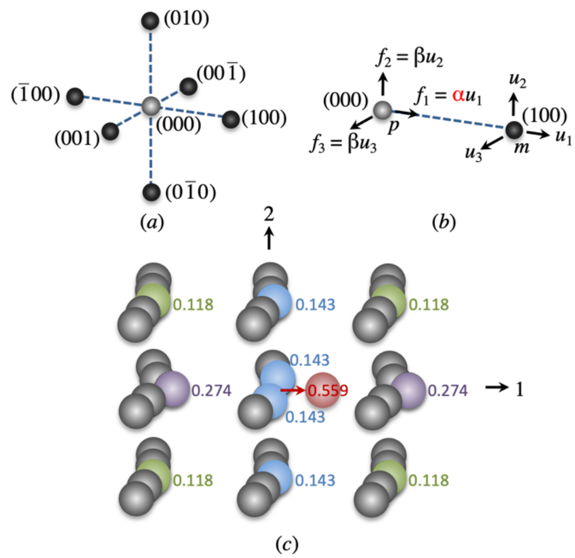
Additional Resources: Worked solutions to end-of-chapter problems with supporting MATLAB programs are available at: https://www.cambridge.org/us/academic (search "Theory of Dislocations")

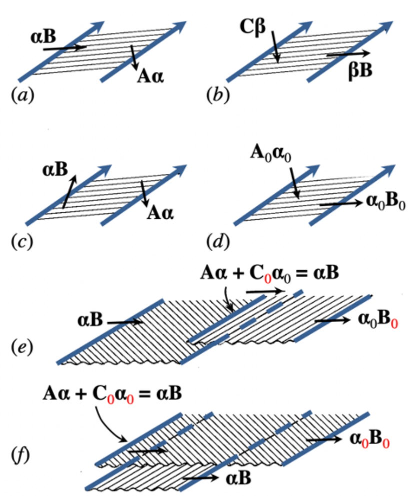
PAGE #, ITEM	**CORRECTIONS**
44, Figure 2.6*b*:	βu_1 should read αu_1 and u_3 should read u_3.
44, Figure 2.6*c*	Figure 2.6*c* is missing. The revised figure and caption are below.



2.6. Features of a Rosenstock-Newell (R-N) model showing (*a*) the coordinates for a simple cubic lattice with central atom (000) and (*b*) the forces resulting at atom (000) due to imposed displacements at atom (100) and (*c*) the displacement field in the vicinity of atom (000) (shown in red) with a unit force $f_1 = 1$ (indicated by a red arrow), with spring constants $\alpha = 1$, $\beta = 0.25$, and periodic dimension $2L = 20a$, where a is the lattice parameter. The numerical values next to select atoms indicate the displacement u_1 (in units of a). The other components of displacement are zero ($u_2 = u_3 = 0$) for the R-N model.

44, Eq. 2.103:	$u_j(\xi)$ should read $u_j(\eta)$.
45, Last paragraph:	Figure 2.5*c* should read Figure 2.6*c*.
89, Problem 3.6:	$\sigma_{xy} = 10^{-3}E$ should read $\sigma_{yy} = 10^{-3}E$.
90, Problem 3.9:	In the first equation for σ_{yz}, both occurrences of (1/d) in the sums should read (l/d).

100, Eq. 4.31:	$\Phi\sigma =$ should read $\sigma =$.
119, line above Eq. 5.50a:	...from Eq. 4.30 gives should read ...from Eq. 4.30 and integrating over *y* gives.
120, 2nd line from bottom:	The line integrals in the resulting should read The line integrals over y in the resulting.
127, Margin note:	Angular segments (Figure 5.12) should read Angular segments (Figure 5.10).
171, Eq. 7.19:	W should read W_0.
176, 3 lines above Eq. 7.41:	applied to a vibrating screw dislocation should read applied to a screw dislocation vibrating at frequency Ω.
234, Table 9.1	In the row for hcp, <1$\bar{1}$20> should read <11$\bar{2}$0> and <1$\bar{1}$23> should read <11$\bar{2}$3>.
238, Table 9.3:	All cases of <1$\bar{1}$20> should read <11$\bar{2}$0>. For Cd, {10$\bar{1}$0}(T)^{8} should read {10$\bar{1}$1}(T)^{8}. For Mg, {10$\bar{1}$0}$^{1\text{-}4}$ should read {10$\bar{1}$1}$^{1\text{-}4}$. See corrected Table 9.3 below.
238, 3rd line:	of <0001> only in beryllium at high T should read of <0001> in beryllium at room T.
245, Eq. 9.14, margin note:	General basis not aligned to slip system should read Basis aligned to slip system.
252, Problem 9.3:	(11$\bar{2}$0) {10$\bar{2}$0} should read <11$\bar{2}$0> {10$\bar{1}$0}
252, Problem 9.10:	Figure 9.17 should read Figure 9.18.
264, Figure 10.10 caption:	The font size for [1$\bar{1}$0> is too large and creates a gap in the line spacing.
265, Figure 10.11 caption:	view should read views.
289, Figure 11.2:	There are several occurrences of missing "0" subscripts. See the revised figure below. Corrections are shown in red text.



310, Problem 11.4:	Figure 10.38*b* should read Figure 10.8*b*.
338, Exercise 13.1:	Inverting should read Invert.
339, Figure 13.2 caption:	k′ = $(1/\sqrt{6})[\bar{1}01]$ should read k′ = $(1/\sqrt{2})[\bar{1}01]$ so that k′ is a unit vector.
382, Eq. 14.6:	The fraction a/h should be $a/\hbar$, where ħ (h bar) is Planck's constant.
410, Problem 14.6	with a vacancy should read with a given vacancy.
410, Problem 14.10:	between *l*′ and some value *l*′ should read between *l*′ and some value *l*′′. $l' = 10^{-3}$ cm should read $l'' = 10^{-3}$ cm. $G_B \sim 0.5\ e$V should read $F_B \sim 1.0\ e$V.
474, 3 lines below Eq. 17.6:	0.1 has the wrong font.
487, Problem 17.2:	and 10^{-4} *E* should read and 10^{-1} *E*.
487, Problem 17.3:	For should read that.
551, Eq. 19.43:	In the expression for $\mathbf{N}_2$, $-\mathbf{b}$ should read $-\mathbf{b}_1$.
632, Problem 22.8:	Eq. 22.5 should read Eq. 22.6.
632, Problem 22.10:	Eq. 22.6 should read Eq. 22.5.
672, reference:	Hirth JP, Hoagland RG, Barnett DM (2016a) submitted to Acta Mater should read Hirth JP, Barnett DM, Hoagland RG (2017) *Acta Mater.* 131: 574.
672, reference:	Hirth JP, Wang J, Tome CN (2016b) should read Hirth JP, Wang J, Tome CN (2016).

TABLE 9.3. Slip Systems for HCP Metals* (revised-corrections shown in red text)

Metal	Predominant Slip System at Room Temperature	Less Prominent Systems: High Temperatures	Less Prominent Systems: Favorable Resolved Shear Stress
(1) Cd (c/a = 1.89)	$\langle 11\bar{2}0\rangle\{0001\}$[1-4]	$\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[5]	$\langle ?\rangle\{11\bar{2}2\}$[6] $\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[7] $\langle 11\bar{2}0\rangle\{10\bar{1}1\}(T)$[8] $\langle 11\bar{2}3\rangle\{11\bar{2}2\}(T)$[8] $\langle 11\bar{2}3\rangle\{hkil\}(T)$[8,9]
(2) Zn (c/a = 1.86)	$\langle 11\bar{2}0\rangle\{0001\}$[1-4]	$\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[10]	$\langle 11\bar{2}3\rangle\{11\bar{2}2\}$[11] $\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[12] $\langle 11\bar{2}3\rangle\{11\bar{2}2\}(T)$[8] $\langle 11\bar{2}3\rangle\{hkil\}(T)$[8,9]
(3) Mg (c/a = 1.62)	$\langle 11\bar{2}0\rangle\{0001\}$[1-4]$(T)$[16]	$\langle 11\bar{2}0\rangle\{10\bar{1}1\}$[1-4]	$\langle 11\bar{2}0\rangle\{10\bar{1}1\}$[13,14]$(T)$[16] $\langle 10\bar{1}0\rangle\{11\bar{2}2\}$[14] $\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[14,15] $\langle 11\bar{2}0\rangle\{hkil\}$[15]
(4) Co (c/a = 1.62)	$\langle 11\bar{2}0\rangle\{0001\}$[17]$(T)$[18]		$\langle ?\rangle\{11\bar{2}2\}$[17]
(5) Re (c/a = 1.62)	$\langle 11\bar{2}0\rangle\{0001\}$[19] $\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[19]		
(6) Ti (c/a = 1.59)	$\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[20,21]		$\langle 11\bar{2}0\rangle\{10\bar{1}1\}$[20,21] $\langle 11\bar{2}0\rangle\{0001\}$[20,21]
(7) Zr (c/a = 1.59)	$\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[22]$(T)$[23]		$\langle 11\bar{2}0\rangle\{0001\}$[21]$(T)$[25] $\langle ?\rangle\{10\bar{1}3\}$[25] $\langle ?\rangle\{11\bar{2}1\}$[25]
(8) Be (c/a = 1.57)	$\langle 11\bar{2}0\rangle\{0001\}$[26,27]	$\langle 11\bar{2}0\rangle\{1\bar{1}04\}$[27] $\langle 10\bar{1}0\rangle\{?\}$[29] $\langle 11\bar{2}3\rangle\{11\bar{2}2\}$[29]	$\langle 0001\rangle\{10\bar{1}0\}$[28] $\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[26,27] $\langle 11\bar{2}0\rangle\{10\bar{1}1\}$[27]
(9) Yt (c/a = 1.57)	$\langle 11\bar{2}0\rangle\{10\bar{1}0\}$[30]		$\langle 11\bar{2}0\rangle\{0001\}$[30]

*Studies using electron-transmission microscopy are indicated by (T). The other studies mainly involve surface slip trace or resolved shear stress criteria.

Sources: 1. Schmid and Boas (1950); 2. Barrett (1952); 3. Maddin and Chen (1954); 4. Clarebrough and Hargreaves (1959); 5. Gilman (1961a); 6. Stoloff and Gensamer (1962); 7. Brown (1952); 8. Price (1963: 41); 9. The notation {*hkil*} indicates that cross slip occurs on any plane for which the slip direction is a zone axis; such slip is also called banal; 10. Gilman (1956); 11. Bell and Cahn (1957); 12. Seeger and Trauble (1960); 13. Burke and Hibbard (1952); 14. Reed-Hill and Robertson (1958); 15. Chadhuri *et al*. (1955); 16. Thomas *et al*. 1961: 447); 17. Seeger *et al*. (1963); 18. Votava (1961); 19. Churchman (1960); 20. Rosi *et al*. (1956); 21. Churchman (1954); 22. Rapperport and Hartley (1960); 23. Howe *et al*. (1962); 24. Martin and Teed-Hill (1964); 25. Bailey (1963); 26. Tuer and Kaufmann (1955: 372); 27. Levine (1964); 28. Garber *et al.* (1961); 29. Pointu *et al*. (1961); 30. Rapperport and Hartley (1959).