

Errata for G. S. Girolami, *X-ray Crystallography*, first printing

- p. 18, middle: after “reorientation” insert “of”
- p. 18, definition for geometric element: after “set of points  $p$ ” insert “, less than all of space,”
- p. 31, figure 3.3: in the orthograph for the  $\bar{1}$  point group, the lower point should be a dot, not a dot in a circle
- p. 51, last paragraph before exercises:  $2 = m$  should have a bar over the 2
- p. 69, figure 6.2: in the  $4mm$  diagram, the two sets of commas at left and right are drawn incorrectly
- p. 74, last bullet: after “if you shift the centered” insert “rectangular”
- p. 91, figure 8.1: in the diagram for the  $c2mm$  plane group, the horizontal line in the middle of the cell should be solid to indicate a mirror, not a glide
- p. 93, figure 8.2 caption: replace “mirror planes” with “mirror lines”
- p. 108, near bottom: benzene’s point group is  $6/mmm$ , not  $6mm$
- p. 116, equation 10.1: in  $\cos^2 y$ , the symbol should be a gamma, not a y
- p. 138, table 12.4 header: replace “organic” with “inorganic”; also, space group  $I4/mma$  should be  $I4/mmm$  and this space group is tetragonal, not orthorhombic
- p. 147, figure 13.3: the 10 kV curve is mislabeled 15 kV
- p. 162, figure caption: the vertical shadow is that of the support for the beam stop, not the support for the crystal.
- p. 183, figure 16.4: delete “oscillation axis”
- p. 190, third full paragraph: replace “diffraction from an atom” with “scattering from an atom”
- p. 190, bottom: replace “in which the electrons inside of the atom behave as if they were free electrons” with “in which the scattering takes place off of electrons inside the atom”
- p. 238, just above equation 22.7: after “ $h$ ,  $k$ , and  $l$ ” insert “for cubic crystals”
- p. 251, first line in Section 23.2: “Equation 23.15 in Section 23.2” should refer instead to Section 23.1
- p. 258, equation 24.11: replace middle line with  $f_{\text{aluminum}} \cos[2\pi(0)] + f_{\text{boron}} \cos[2\pi(-0.667)] + f_{\text{boron}} \cos[2\pi(-0.333)]$ , and in the next line replace  $-480^\circ$  with  $-240^\circ$

- p. 258, equation 24.12: in the first line, replace “ $hkl$ ” with “ $21\bar{4}$ ” (twice)
- p. 259, in equation 24.14:  $\sin(-\theta) = -\sin(\theta)$  is missing the minus sign on the right hand side
- p. 260, equation 24.18: insert minus signs in front of the two  $H$ 's
- p. 262, figure 24.2: in  $\bar{3}/m$  delete the / sign
- p. 313, middle,  $r_{\text{oxide}}$  should be 1.35 Å, not 1.40 Å, and the volume for 20 atoms should be 278 Å<sup>3</sup>
- p. 328, after equation 31.2: delete the floating 0 between the two lines
- p. 353, figure 33.2: in the right figure, the outer circle is warped but should not be
- p. 364, equation 34.9: insert absolute value signs around the numerator in the tanh term
- p. 371, bottom paragraph: add vector arrows over  $a/2$  and  $a/2 + b/2$
- p. 392, equations: in each case,  $\pi$  should be  $\pi^2$ ; also, in the last expression,  $U_{33}$  should be  $U_{23}$
- p. 402, fourth bullet: replace “large compared with” with “approaches or exceeds one-tenth of”
- p. 413, second bullet at top: replace “some of the molecules” with “some of the atoms”
- p. 414: the last section should be Section 38.5, not 38.6
- p. 422, middle: replace “ $b$ -axis unique” with “61.7 Å axis unique (because the  $2_1$  axis runs in this direction).” Also, change  $C2_1$  to  $B2_1$
- p. 452, middle: the neutron half-life is 10.2 min, not 10.6 min
- p. 454, end of first full paragraph: replace “Incoherent scattering, which is” with “The presence of different isotopes, which is”
- p. 465, top of subsection: move the equation so that the sentence reads: “We will prove the Euler identity  $e^{i\phi} = \cos \phi + i \sin \phi$  by showing that...”
- p. 469, beginning of fourth paragraph: replace “centered at the origin of reciprocal space” with “centered where the vector  $\vec{S}_0$  begins (its left end in the figure)”