

Hence, from (2), we have:

$$\begin{aligned} 3K_1 &= c_1 + c_1^*, & 3K_2 &= 3K_3^* = c_2, \\ 3L_1 &= \varepsilon^* c_1 + \varepsilon c_1^*, & 3L_2 &= 3L_3^* = \varepsilon^* c_2, \\ 3M_1 &= \varepsilon c_1 + \varepsilon^* c_1^*, & 3M_2 &= 3M_3^* = \varepsilon c_2. \end{aligned}$$

Furthermore, $F_H(x)$ and $F(x)$ with $q = p$ are expressed as

$$F_H(x) = (x - X_1)(x - X_2)(x - X_2^*) = 0$$

and

$$F(x) = (x - X_1)(x - X_2) = 0.$$

The order of $F_H(x)$ is higher than that of $F(x)$ with $q = p$.

In the case of $q \neq p$, the characteristic equation $F_H'(x)$ was not shown by Howard but it is given by $F_H'(x) = F(x)F^*(x)$ and then the difference equation is

$$\begin{aligned} &P_{m+4}^A + (1-p)P_{m+3}^A + (1-p+p^2-3pq)P_{m+2}^A \\ &+ p(1-p)(2-3q)P_{m+1}^A + p^2(1-3q+3q^2)P_m^A \\ &= 1 - 2pq + p^2q^2 \\ &= (\text{sum of five coefficients})/3. \end{aligned}$$

In the PT method, $F_H'(x) = F(x)F^*(x) = 0$ must be solved but in the matrix method, the necessary quantities are not the roots but the coefficients in $F(x) = 0$.

Thus, the matrix method is superior to the PT method.

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Restrictions on the components of third-order tensors for site symmetry $3m$: Correction of an error in Volume IV of *International Tables for X-ray Crystallography*. By C. SCHERINGER, *Institut für Mineralogie der Universität Marburg, D 3550 Marburg, Federal Republic of Germany*

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Abstract

For site symmetry $3m$, the covariant components 112 and 122 of the third-order tensors are not independent, and in row C38* of Table 5.5C (p. 329) of the *International Tables for X-ray Crystallography* [(1974), Vol. IV. Birmingham: Kynoch Press] the symbol D should twice be replaced by $-A/2$.

The result was established by applying the $3m$ symmetry operations which hold for the covariant components of the third-order tensor, and was confirmed by calculating the covariant components from the contravariant components. All other information is given in the *Abstract*.

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Corrections to Table 2.2B of Volume IV of *International Tables for X-ray Crystallography*. By RICHARD E. MARSH and KIRBY J. SLAGLE, *Arthur Amos Noyes Laboratory of Chemical Physics, California Institute of Technology, Pasadena, California 91125, USA*

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Abstract

Corrections are given for two of the coefficients for the analytical approximations to X-ray scattering factors in Table 2.2B of *International Tables for X-ray Crystallography* [(1974), Vol. IV. Birmingham: Kynoch Press]. For Ru^{+4} (p. 100), the coefficient b_3 should be 0.036495 rather

than 0.36495; for Bi^{+5} (p. 101), the coefficient b_2 should be 0.039042 rather than 0.39042.

All information is given in the *Abstract*. We thank Dr Don T. Cromer for confirming that the numbers were indeed misprinted as indicated.