

Errata

The Publisher apologizes for several misprinted equations which appeared in *Journal of Materials Science*, volume 36, number 19:

Nonlinearity in piezoelectric ceramics by D. A. Hall, pp. 4575–4601.

A list of corrections follows:

CORRECTED EQUATIONS

Equation 1:

$$x_m = s_{mn}^E X_n + d_{im}^X E_i$$

(lower case 's')

Equation 25:

$$x_0(E_0) = d_{init} E_0 + \alpha_{cp} E_0^2$$

(lower case 'x')

Equation 33:

$$D_3^{(2)} = \left(\frac{1}{2} \varepsilon_{333}^X E_0 + \dots \right) E_0 \sin \left(2\omega t - \frac{\pi}{2} \right)$$

(the change to this equation is just the superscript to ε , which should be uppercase 'X', not lowercase 'x').

Equation 42:

$$dG = -x_{ij} dX_{ij} - D_i dE_i$$

(lower case 'x')

Equation 44:

$$df = \frac{\partial f}{\partial x} dx + \frac{\partial f}{\partial y} dy + \frac{1}{2!} \left(\frac{\partial^2 f}{\partial x^2} dx^2 + 2 \frac{\partial^2 f}{\partial x \partial y} dx dy + \frac{\partial^2 f}{\partial y^2} dy^2 \right) + \frac{1}{3!} \left(\frac{\partial^3 f}{\partial x^3} dx^3 + 3 \frac{\partial^3 f}{\partial x^2 \partial y} dx^2 dy + 3 \frac{\partial^3 f}{\partial x \partial y^2} dx dy^2 + \frac{\partial^3 f}{\partial y^3} dy^3 \right) + \dots$$

Equation 47:

$$s_{ijkl}^E = \left(\frac{\partial x_{ij}}{\partial X_{kl}} \right)_E$$

(lower case 's')

Equation 51:

$$x_m = s_{mn}^E X_n + d_{im}^X E_i$$

(lower case 's')

Equation 53:

$$dD_i = \left(\frac{\partial D_i}{\partial X_{jk}} \right)_E dX_{jk} + \left(\frac{\partial D_i}{\partial E_j} \right)_X dE_j + \frac{1}{2} \left[\left(\frac{\partial^2 D_i}{\partial X_{jk} \partial X_{lm}} \right)_E dX_{jk} dX_{lm} + 2 \left(\frac{\partial^2 D_i}{\partial X_{jk} \partial E_l} \right) dX_{jk} dE_l + \left(\frac{\partial^2 D_i}{\partial E_j \partial E_k} \right)_X dE_j dE_k \right]$$

Equation 54:

$$x_m = s_{mn}^E X_n + d_{im} E_i + \frac{1}{2} s_{mnp}^E X_n X_p + \kappa_{imn} X_n E_i + \frac{1}{2} d_{ijm} E_i E_j$$

Equation 55:

$$D_i = d_{im} X_m + \varepsilon_{ij}^X E_j + \frac{1}{2} \kappa_{imn} X_m X_n + d_{ijm} X_m E_j + \frac{1}{2} \varepsilon_{ijk}^X E_j E_k$$