

lattice vibration works as the mechanism to produce many lattice defects, which assure the mobility of atoms in the liquid. Although I believe that study along this line is important for the understanding of the phenomenon, I myself have not yet succeeded in the mathematical formulation of this problem.

The quantitative comparison of my theory with Lindemann's criterion⁴ is restricted by various factors. It is suggested in Ref. 1 that there might be ambiguity in the experimental data. Some approximations adopted in my theory should also be examined in more detail for this purpose. For in-

stance, I assumed for the mathematical simplicity that the dependence of the sound velocity on the interatomic distance is the same between the longitudinal and shear modes [i. e., α in Eq. (17) is assumed to be constant]. Usually this assumption is not met very well in real substances. Apart from these restrictions, let us examine Table I in Ref. 1. In spite of the opposite conclusion drawn by the authors, it seems to me that the condition of Q_m being constant is satisfied systematically within each group having the same structure (e. g., three alkali metals, five fcc metals, two bcc metals, ten alkali halides, etc.).

¹K. Ishizaki, P. Bolsaitis, and I. L. Spain, preceding paper, Phys. Rev. B 7, 5412 (1973).

²Y. Ida, Phys. Rev. 187, 951 (1969).

³Y. Ida, Phys. Rev. B 1, 2488 (1970).

⁴F. A. Lindemann, Z. Phys. 11, 609 (1910).

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Phonon-Radiation Force in Defect Crystal Lattices, Richard S. Sorbello [Phys. Rev. B 6, 4757 (1972)]. Equation (11) and the subsequent definition of its symbols should be corrected to read as follows:

$$\langle u_\alpha(l)u_\beta(m) \rangle = \frac{\hbar}{2N} \sum_{\vec{q}} \frac{n_{\vec{q}}}{\omega_{\vec{q}}} \phi_\alpha(\vec{q}, x_l) \phi_\beta^*(\vec{q}, x_m) + \text{c. c.},$$

where $\phi_\alpha(\vec{q}, x_l)$ is the α component of the classical displacement field for scattering of an incident wave in mode \vec{q} . The summation is over all modes \vec{q} and the corresponding wave polarizations. The normalization is such that the γ component of the incident-wave displacement field at a regular-atom site in the n th unit cell is $\epsilon_\gamma(\vec{q})M_\gamma^{-1/2}e^{i\vec{q}\cdot\vec{x}_n}$, where $\epsilon_\gamma(\vec{q})$ is the γ component of the polarization vector, M_γ is the unperturbed mass of the atom defined by γ , and where \vec{x}_n is the position of the n th unit cell.

The right-hand side of Eq. (14) should be divided by $M^{1/2}$. The remainder of the paper, including Eq. (15), is not affected by these changes.

Application of a Variational Principle to the Calculation of Low-Energy Electron Diffraction Intensities. I. One-Dimensional Problems, A. P. Shen and J. B. Krieger [Phys. Rev. B 1, 2500 (1970)]. A minus sign should be inserted on the right-hand side of both Eq. (19) and Eq. (20). The title of the subsection C of Sec. IV should read: "... for $k'(\epsilon)$," instead of $k(\epsilon)$. In the right-hand side of Eq. (28), brackets should be placed to

enclose the denominator which includes both the last term of the first line and the term of the second line.

There are also several typographical errors in the Appendices. The first line in Eq. (A1) should read:

$$\begin{aligned} -(2k/i)\delta R &= (1/D^2) \left\{ \int dx \psi(x)V(x) \right. \\ &\quad \times [\psi(x) - \int G(x, x')V(x')\psi(x')dx'] \\ &\quad \times 2 \left[\int e^{ikx}V(x)\delta\psi(x)dx \int e^{ikx}V(x)\psi(x)dx \right]. \end{aligned}$$

The first line of the equation immediately after Eq. (A1) should read:

$$\begin{aligned} -(2k/i)\delta R &= (2/D^2) \left[\int e^{ikx}V(x)\psi(x)dx \right] \left\{ \int dx \psi(x)V(x) \right. \\ &\quad \times [\psi(x) - \int G(x, x')V(x')\psi(x')dx'] \\ &\quad \times \left[\int e^{ikx}V(x)\delta\psi(x)dx \right]. \end{aligned}$$

The second line of Eq. (B3) should read:

$$+ \sum_{l, m, n=-\infty}^{+\infty} \ln \left(1 - \frac{\alpha(2lx + 2my + 2nz) - x^2 - y^2 - z^2}{\alpha^2(l^2 + m^2 + n^2)} \right).$$

The first two lines of Eq. (B4) should read:

$$\sum_{l^2+m^2+n^2 > N^2}^{\infty} \ln \left(1 - \frac{\alpha(2lx + 2my + 2nz) - x^2 - y^2 - z^2}{\alpha^2(l^2 + m^2 + n^2)} \right) = \sum_{l^2+m^2+n^2 > N^2}^{\infty} \left\{ \frac{-\alpha(2lx + 2my + 2nz) + x^2 + y^2 + z^2}{\alpha^2(l^2 + m^2 + n^2)} \right. \\ \left. - \frac{1}{2} \left(\frac{-\alpha(2lx + 2my + 2nz) + x^2 + y^2 + z^2}{\alpha^2(l^2 + m^2 + n^2)} \right)^2 + O((l^2 + m^2 + n^2)^{-2}) \right\}.$$

Application of a Variational Principle to the Calculation of Low-Energy Electron Diffraction Intensities. II. The Generalized Formalism of Three-Dimensional Problems, A. P. Shen and J. B. Krieger [Phys. Rev. B 3, 4189 (1971)]. The last two lines of Eq. (3.6) should read:

$$\times [e^{-i\vec{k}\vec{r}} \cdot \vec{r} \mathcal{D} - (\int e^{-i\vec{k}\vec{r}'} \cdot \vec{r}' V(\vec{r}') \psi(\vec{r}') d\vec{r}') (\tilde{\psi}(\vec{r}) - \int \mathcal{G}(\vec{r}, \vec{r}') V(\vec{r}') \tilde{\psi}(\vec{r}') d\vec{r}')] \} / \mathcal{D}^2.$$

The second line below Eq. (3.10) should read: "... the adjoint of $\psi(r)$, ...", instead of $\tilde{\psi}(r)$. Cancel one minus sign immediately after the first equality sign in Eq. (5.1). In the third line of Eq. (6.8), the opening parenthesis should be placed after the term $i/2AK\vec{u}$ instead before it.

Application of a Variational Principle to the Calculation of Low-Energy Electron Diffraction Intensities. III. Application to Muffin-Tin Potentials, A. P. Shen [Phys. Rev. B 3, 4200 (1971)]. Several typographical errors should be corrected as follows: The left-hand side of Eq. (2.4) should read: $A_{\vec{r}}$ instead of $A_{\vec{r}}$. In the denominator of Eq. (2.9), place a closing square bracket at the end of the terms. The letter appearing in the denominator of Eq. (2.12) should be a script \mathcal{G} , that is $\mathcal{G}(r, r')$. The equations after Eq. (4.14) should be labeled as Eq. (4.15). In Appendix B, the first line immediately after Eq. (B5) should read: "where $\phi(\vec{k}_{\parallel} + 2\pi\vec{u})$ is ..."