

ERRATA

Influence of the Phonon Spectrum of In-Tl Alloys on the Superconducting Transition Temperatures. R. C. Dynes [Phys. Rev. B 2, 644 (1970)]. In this paper the value for $\langle\omega\rangle$ was incorrectly calculated. Rather than calculate $\langle\omega\rangle$ as was defined in the paper, namely,

$$\langle\omega\rangle = \int_0^\infty \alpha^2(\omega)F(\omega) d\omega / \int_0^\infty \frac{\alpha^2(\omega)F(\omega)}{\omega} d\omega,$$

the author inadvertently calculated

$$\int_0^\infty \omega \alpha^2(\omega)F(\omega) d\omega / \int_0^\infty \alpha^2(\omega)F(\omega) d\omega,$$

which we will now denote $\bar{\omega}$. The correct numerical values for $\langle\omega\rangle$ and $\bar{\omega}$ are given in the revised version of Table II, which is presented here. It can be seen immediately that, using the correct values for $\langle\omega\rangle$, much better agreement is found between the values of T_c determined experimentally and those calculated using McMillan's equation [Eq. (8)]. This agreement is shown in Fig. 1 (which is a corrected version of Fig. 7). Clearly, when used with the correct $\langle\omega\rangle$, McMillan's equation adequately describes the T_c 's of these alloys throughout the entire series.

The correction of the values of $\langle\omega\rangle$ leaves the other conclusions of the paper unchanged. As Garland's equation does not involve $\langle\omega\rangle$, it is still in rather poor agreement with the experimental results. The values presented in the T_c -versus-con-

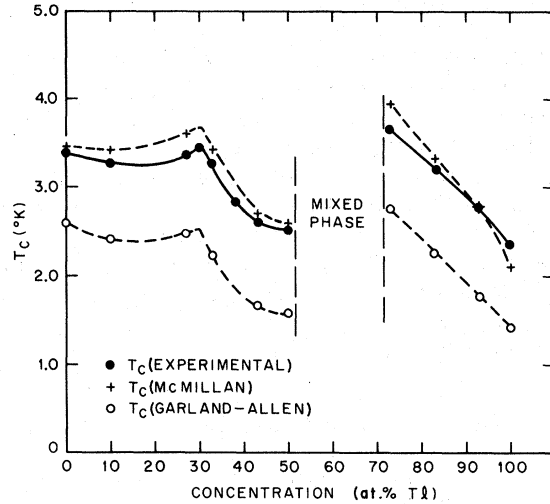


FIG. 1. Comparison of the experimentally measured transition temperatures with those obtained from the theoretical expressions of McMillan (using $\langle\omega\rangle$ as defined in the text) and of Garland and Allen. This is a revised Fig. 7.

centration plot (Fig. 9) are changed, as can be seen from the new Table II, but the basic shape of the curve, with a minimum in $\langle\omega\rangle$ near 30% Tl, remains the same. Thus the discussion of mode softening at the phase transition is unaltered.

The author wishes to thank C. Owen for pointing out this error.

TABLE II. (Revised)

| Alloy | $\langle\omega\rangle$ (meV) | $\bar{\omega}$ (meV) | $\langle\omega^2\rangle$ (meV ²) | λ | $T_{c \text{ expt}}$ (°K) | $T_{c \text{ McM11}}$ (°K) | $T_{c \text{ G. A.}}$ (°K) | $\langle\omega^2/\omega_0^2\rangle$ |
|---------------------------------------|---------------------------------|-------------------------|---|-----------|------------------------------|-------------------------------|-------------------------------|-------------------------------------|
| In | 6.91 | 8.86 | 61.17 | 0.834 | 3.40 | 3.44 | 2.57 | 0.2613 |
| In _{0.90} Tl _{0.10} | 6.46 | 8.41 | 54.30 | 0.850 | 3.28 | 3.42 | 2.40 | 0.2413 |
| In _{0.73} Tl _{0.27} | 5.76 | 7.67 | 44.19 | 0.933 | 3.36 | 3.60 | 2.47 | 0.2131 |
| In _{0.67} Tl _{0.33} | 5.88 | 7.81 | 46.00 | 0.899 | 3.26 | 3.42 | 2.21 | 0.2218 |
| In _{0.57} Tl _{0.43} | 5.51 | 7.33 | 40.50 | 0.847 | 2.60 | 2.70 | 1.68 | 0.2066 |
| In _{0.50} Tl _{0.50} | 5.45 | 7.20 | 39.32 | 0.835 | 2.52 | 2.58 | 1.57 | 0.2035 |
| In _{0.27} Tl _{0.73} | 4.56 | 6.46 | 29.32 | 1.092 | 3.64 | 3.95 | 2.76 | 0.1609 |
| In _{0.17} Tl _{0.83} | 4.67 | 6.30 | 29.45 | 0.980 | 3.19 | 3.31 | 2.26 | 0.1916 |
| In _{0.07} Tl _{0.93} | 4.86 | 6.09 | 29.61 | 0.889 | 2.77 | 2.76 | 1.79 | 0.2319 |
| Tl | 4.98 | 6.04 | 30.13 | 0.780 | 2.33 | 2.10 | 1.41 | 0.2584 |

Influence of the Dipole-Dipole Coupling on the Specific Heat of Cesium Titanium Alum. Paul H. E. Meijer [Phys. Rev. B 3, 182 (1971)]. In Sec. III the length $a\sqrt{2}$ is taken to be 12.17 Å. For the alum in question it should have been 12.45 Å. This is based on the results of Haussühl¹ and the fact that Haussühl is, in all comparable cases, 0.025 Å

higher than Lipson and Beevers.² Hence, the author averaged over the two by subtracting 0.012 Å. Note that with this lattice constant our τ becomes identical with the value of τ used by Hebb and Purcell.³

The numbers of g^2P remain the same, since they are expressed in units of a . The entropy correc-