TABLE III. $C(T)$ for copper (in units of 10^2 eV^{-1}).

T(°K)	Flinn *et al.* Experimental values θ_D	Flinn *et al.* Experimental values $C(T)$	C.F. model	Jacobsen	White	A-S	Debye model $\theta_D=335$°K
4	320±10	0.544∓0.02	0.552	0.579	0.537	0.570	0.520
20	320±10	0.588∓0.02	0.566	0.593	0.548	0.582	0.532
80	320±10	0.755∓0.04	0.762	0.808	0.733	0.779	0.697
300	315±10	2.17 ∓0.14	2.10	2.29	2.03	2.18	1.93
400	300±10	3.14 ∓0.25	2.77	3.02	2.67	2.87	2.50

for aluminum determined by Walker from his experimental dispersion curves. The experimental and calculated temperature dependence of $C(T)$ for copper is given in Table III. For comparison we calculated $C(T)$ using a Debye model, the results of these calculations are also shown in this table.

From the results in Table III we conclude that the experimental determination of the Debye-Waller factor for pure host lattices of cubic symmetry is not sensitive enough to distinguish between the various models. Models inconsistent with experimental dispersion curves such as the C.F. model and White's full tensor model give essentially the same Debye-Waller factor.

The results of the calculations for aluminum using Walker's force constants are given in Table IV. Using the A-S force constants the values of $C(T)$ are higher than Walker's by 1% at 0°K and by 4% at 400°N. Only a small difference is expected since Walker's constants are essentially axially symmetric.

TABLE IV. $C(T)$ for aluminum (in units of 10^2 eV^{-1}).

T(°K)	Walker	Debye model ($\theta_D=382$°K)
4	0.471	0.459
20	0.478	0.464
80	0.598	0.583
300	1.54	1.50
400	2.02	1.96