integral, assumed to dominate all other erlaps,

$$\xi \approx |J|^{-1} . \quad (2)$$

der the same assumptions the linear intraband ctron-phonon coupling [7] is essentially proional to $q_0 J$, where the Slater coefficient q_0, sumably weakly dependent on stress, deribes the exponential decrease, $\exp(-q_0 r)$, of involved d-functions. Therefore

$$\lambda \approx q_0^2 |J|^2 . \quad (3)$$

he constant of proportionallity depends somehat on the procedure and the model ‡ used to lculate V, and physically, on the appropriately eraged renormalized phonon frequency. The ressure dependence of the constant of proporonality is expected to arise mainly from the ariation of this latter quantity, i.e., to be oughly model independent. The renormalized honon frequencies usually increase somewhat nder pressure, reducing V. On the contrary the ndwidth $4|J|$ increases, increasing V. Here we stimate this latter effect which is dominant, iving the upper bound to the variation of T_c omputed from eq. (1): the variation of $|J|$ due to he strain ϵ is $\delta|J| = -aq_0|J|\epsilon$, where a is the nteratomic distance in the chain at zero pressure. Combining this results with eqs. (1)-(3) we obtain

$$\delta T_c/T_c \lesssim -3aq_0\epsilon = aq_0 p/K . \quad (4)$$

Here p is the applied pressure and K the bulk modulus of the crystal. The term of the order ϵ^2 is still negligible for used pressures.

Experimentally $p/K \approx 1.5\%$ induces $\delta T_c/T_c \approx 4\%$. This is not only in sign but also in rough quantitative agreement with eq. (4) since with* $q_0 \approx 1$ Å^{-1}, $aq_0 \approx 2.4$, and the estimated $aq_0 p/K \approx 3.6\%$.

A similar calculation may be done for transition metals on combining the eq. (9) of ref. [7] with the eq. (19) of ref. [9]. It yields for the volume dependence of the Mac Millan quantity $n_F\langle J^2\rangle$ at constant number Q of electrons in the d-band, the expression

$$(\delta \ln n_F\langle J^2\rangle/\delta \ln \Omega)_Q = -\frac{1}{3} aq_0 , \quad (5)$$

in reasonable agreement * with results quoted by Garland and Bennemann [10].

‡ In order to obtain a nonvanishing superconductive coupling for small momentum transfers along the chain a weak interchain coupling must be assumed from the outset [8].

* q_0 in eqs. (4) and (5), since related to the second derivative of the overlap integral with respect to distance, may be somewhat different (larger) than q_0 appearing in eq. (3).

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