

FIG. 1. The phonon spectrum $\alpha^2(\omega)F(\omega)$ of Pb at $P = 0$ (black line) and $P = 3445$ bar (dashed line).

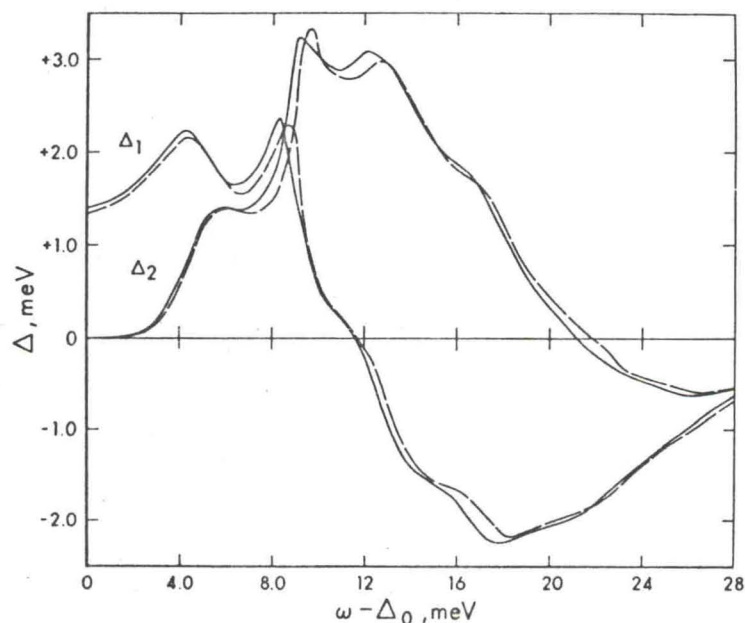


FIG. 2. Real part, Δ_1 , and imaginary part, Δ_2 , of the gap function of Pb. $P = 0$, black lines, $P = 3445$ bar, dashed lines.

In Fig. 2 we give the complex gap function $\Delta(\omega) = \Delta_1(\omega) + i\Delta_2(\omega)$ as function of energy and pressure. The phonon emission resonances are shifted to higher energies and somewhat reduced under pressure, indicating a move towards weaker coupling.

The Coulomb pseudo-potential, U_c , obtained from the inversion program is 0.12 at $P = 0$ and 0.14 at $P = 3445$ bar. This result is in good agreement with McMillan and Rowells'⁵ result, and also with the theoretical estimate⁷ of $U_c \approx 0.11$. It should be stated, however, that

is obtained with moderate dependence seriously.

The form from $\alpha^2(\omega)$

(i) the average

$\langle \alpha^2 \rangle$

(ii) the definition

(iii) the ratio

(iv) an average introduced

$\langle \omega^2 \rangle =$

The results

P (bar)
0
3445

The quantities

$\frac{d \ln}{d \ln}$

$\frac{d \ln}{d \ln}$

$\frac{d \ln}{d \ln}$

$\frac{d \ln}{d \ln}$

We estimate

$\pm 10\%$

The

$\langle \alpha^2 \rangle$ is

averaged

heavily

$\frac{d \alpha^2}{d \ln}$

Scalap

to help

explain

In spite