

the belly oscillations alone  $\Delta A_E/A_B$  can be measured rather accurately, and so from the experiment that measures  $\Delta N_B$ ,  $\frac{\Delta A_N}{A_N}$  can be accurately derived. Alternatively the relative change of cross-section  $(\Delta A/A)_N - (\Delta A/A)_B$  may itself be the quantity desired.

Templeton's results for the three noble metals are summarized in Table III. They show that this provides a very accurate way of meas-

TABLE III. Change of anisotropy and Fermi surface with pressure

Metal	$\frac{\partial \ln \rho_{ph}}{\partial \ln V}$ (0° C)	$\gamma$	$\frac{d \ln K}{d \ln V}$	Change in elastic anisotropy with pressure $\left(\frac{d \ln A}{d \ln V}\right)^\dagger$	Distortion of Fermi surface with pressure
Li	-0.49	0.9	-2.3	-0.4	..
Na	4.6	1.3	2.0	0	..
K	5.6	1.3	3.0	0	Small
Rb	4.3	1.0	2.3	..	..
Cs	3.1	1.0	1.1	..	..
					$\left[\frac{d \ln r_N}{d \ln V}\right]$ distortion $^\ddagger$
Cu	3.0	2.0	-1.0	-0.87	$-1.1 \pm 0.2$
Ag	3.9	2.4	-0.9	-0.84	$-2.1 \pm 0.2$
Au	5.5	3.1	-0.7	-2.1	$-1.5 \pm 0.2$

$^\dagger A$  is the anisotropy parameter  $2 C_{44}/(C_{11}-C_{12})$ .

$^\ddagger$  This measures the distortion effect only; scaling effects have been subtracted.

uring essentially the pressure *derivative* of the different cross-sections at  $P = 0$ . In all three metals, pressure increases the area of contact at the zone boundaries, i.e., enhances the distortion of the Fermi surface. Since this was written further experimental work has been done on copper; see O'Sullivan and Schirber (1968), and Gerhardt (1968).

#### 6. Experiments on the Alkali Metals

So far Templeton has made measurements on K under the pressures available with liquid helium. He has measured the relative change in area of orbits on several different and randomly oriented crystals. The changes correspond, within experimental error, to those to be expected from simple scaling of the Fermi surface to the relative change in the size of the unit cell.