(1960) in their work on the
Ettinghausen–Nernst coeffi-
d by the relationship:

$$\left.\frac{\partial T}{\partial y}\right) \qquad (3)$$

ıt flowing in the x direction,
ıxis. A temperature gradient
ıd an electric field E_y in the
ıed from the potential differ-
ı divided by the correspond-

$_{EN}$ arises from the quantiza-
ıe field, H, and their passage
aas–van Alphen effect.
in $1/H$ and their period, P,

(4)

ea of the Fermi surface nor-

e

different methods as applied
Schirber (1966) and is shown
ss-sections of the needles in
see Fig. 4); it illustrates that
are in very good agreement
-resistance measurements of
surements used the helium
om these measurements are
ays:
; with that found by Balain
tic pressures transmitted by
nd Schirber themselves used
40 b) to check the pressure

variation of the needle cross-sections. They did this using the phase-shift† de Haas–van Alphen technique, which is possible when the pressure can be varied continuously without upsetting the other experimental conditions (in particular, the temperature).

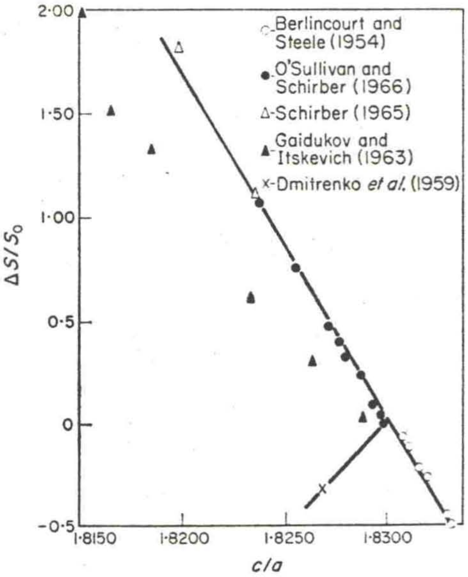

Fig. 3. Change in extremal cross-section for needles in Zn as a function of c/a ratio (After O'Sullivan and Schirber, 1966.)

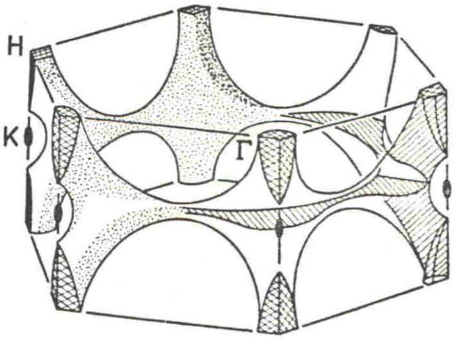

Fig. 4. Part of the Fermi surface of Zn. The "needles" are the black ellipsoids in the middle of the hexagon edges. (From O'Sullivan and Schirber, 1966.)

(b) The results of the pressure measurements form a smooth continuation to smaller values of c/a of the data obtained by Berlincourt

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† For a description of this technique, see Section III D5 on noble metals.