between 1 and 2. Thus, c for argon is ~~xuqx~~ equal to 1.16 /11/, for helium 1.554 /12/,

and for nitrogen 1.775 /11/. At c = 1 the melting temperature should rise linearly

with pressure. As c increases the melting curves T - P deviate more and more from

a straight line in the direction of the pressure axis. Simon /13/ attempted to

apply equation (1) to the melting of alkaline metals, making use of the data of

Bridgman /1/. It turned out that for these metals the quantity c ~~amountsxks~~ is

from 3.8 to 4.8. Moreover, all attempts to compute the magnitude of c on the basis

of various equations of state of liquids and solid bodies (cf. /14÷16/) led to

$1 < c < 1.5$. Apparently, Simon's equation may ~~xe~~ only be considered empirical for

the case of the melting of metals.

Figure 3. The dependence of the melting temperature of copper on pressure. The

points represent the results of individual tests

A computation indicates that in the case of the melting of lead and tin /4/

the values of c are ~~equal~~ approximately equal to 2.5 and 4.0 respectively; it must

be noted, however, that the quantities α and c are extremely sensitive to the

smallest variations in the melting curve, and therefore the accuracy of determining

these ~~eqm~~ quantities from melting ~~ex~~ curves is not very great. The melting curve

for tallium also bends toward the pressure axis /5/. In the case of ~~copperxxaluminumxx~~

~~radmiumxxandxzinex/5/xthexdependxxcopperxm~~ of copper and aluminum, and also cadmium

and zinc /5/, the dependence of the melting temperature on pressure is expressed by

a straight line within the accuracy ~~ofk~~ of the measurements.

It may be hoped that further accumulation of experimental data on the melting

of metals under pressure will make it possible to give a theoretical explanation of

the observed regularities and relate them to the ~~structural~~ structural characterisitics

of the metals.