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Correlation of Neatness and Scholarship in Physics

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precautions had to be observed in the taking of this particular type of data.

IOWA STATE COLLEGE,
AMES, IOWA.

CORRELATION OF NEATNESS AND SCHOLARSHIP IN PHYSICS

GEORGE E. DAVIS

353 reports, written by 33 students in three laboratory sections of junior physics, were graded as to neatness. The average neatness grade and the term laboratory grade for each student were used in a correlation study. For each of the three laboratory sections the correlation coefficient was positive. The coefficient for all 33 students was $+0.27$.

Although the number of students graded was small, we may conclude that in general we may expect neatness and high grades in physics to be associated. Exceptions to the rule and a low correlation coefficient both definitely indicate that neatness of written reports can not alone be relied upon as an index of scholarship in physics.

THERMO-ELECTRIC EFFECT IN SINGLE CRYSTAL ZINC

ERNEST G. LINDER

Data are presented on the thermal e.m.f. against copper of six single crystal wires of zinc, of which the orientations of the main crystallographic axis with respect to the wire axis, range from 11.4° to 90° . The temperature interval is from -182° to 475° C.

From the data are calculated the thermo-electric power, Peltier coefficient, and difference of the Thomson coefficients for Zn against Zn. The data also provide a test for the Voigt-Thomson law for the variation of the thermo-electric power with crystal orientation. The law is verified for the low temperatures, but the deviations at the high temperatures ($300^\circ - 400^\circ$) are greater than the experimental errors are thought to be.

The thermo-electric powers of liquid zinc against solid single crystal zinc of different orientations, and against polycrystalline zinc are given, the value $-7.89/\text{deg.}$ for $(e_t - e_s)$ for polycrystalline zinc having been found.