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A Heat Vaporization Experiment for Elementary Laboratory

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graph screen leads us to suppose that the high yield (line) at 150 ekv is due to emission of a homogeneous long-range group.

PHYSICS DEPARTMENT,
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DISTRIBUTION IN ANGLE OF ALPHA PARTICLES FROM $F^{19} + H^1$

A. ELET, W. B. McLEAN, V. J. YOUNG, G. J. PLAIN

The distribution in angle of long range alpha particles from fluorine bombarded by protons has been studied in the range 270 - 440 ekv. The distribution shows a very strong concentration in the forward direction. Intensity as a function of angle in the center of mass system may be represented by the equation

$$I(\Theta) = 1 + .77 \cos \Theta + .17 \cos^2 \Theta$$

for a bombarding energy of 375 ekv. The distribution shows little, if any, energy dependence and in particular is not observably different at 330 ekv bombarding energy.

Targets were prepared by electrolyzing hydrogen fluoride on tantalum and were fairly thin, the apparent half width of the 330 ekv gamma ray line being 40 ekv or less.

DEPARTMENT OF PHYSICS,
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A HEAT VAPORIZATION EXPERIMENT FOR ELEMENTARY LABORATORY

L. T. EARLS

An electric heating coil is used in an ordinary pint vacuum bottle to evaporate water under steady state conditions. The system is used on a platform balance; the heat of vaporization is determined from total energy input and total change of weight. Sources of error are discussed and accuracy obtainable in actual use is indicated.

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