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Interesting Case Where the Heat Flow Increases the Heat Conductivity of a Fluid (Abstract)

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ANGULAR DISTRIBUTION OF GAMMA RAYS FROM FLUORINE BOMBARDED WITH PROTONS

(ABSTRACT)

STANLEY ATCHISON

Certain considerations suggest the possibility of an asymmetric distribution of the gamma rays from light elements bombarded with protons.

A thin fluorine solid target was used, and coincidence Geiger counters were mounted in such a way that gamma ray intensities at various angles with respect to the direction of the beam could be observed.

Within the limitations of the apparatus, the gamma rays examined appeared to be distributed symmetrically.

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

INTERESTING CASE WHERE THE HEAT FLOW INCREASES THE HEAT CONDUCTIVITY OF A FLUID

(ABSTRACT)

SULAMITH BERESKIN AND G. W. STEWART

If the molecules in liquid crystalline para-azoxyanisole are oriented by a magnetic field, the coefficient of heat conduction is thereby increased by (roughly) twenty-five per cent. The orientation of the molecules produces also orientation of the swarms, often called liquid crystals. Using the results of this experiment in conjunction with earlier experiments in which the flow of heat has also an orienting effect, one can state that the flow of heat decreases the coefficient of heat conduction.

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HIGH INTENSITY FLASH TUBE

(ABSTRACT)

T. ROBERT BURNIGHT

The design and construction of a high energy gaseous flash tube and appertaining equipment for high speed single exposure photography is described.