

1936

X-Ray Scattering from a Linear Charge Distribution

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Recommended Citation

Stewart, G. W. (1936) "X-Ray Scattering from a Linear Charge Distribution," *Proceedings of the Iowa Academy of Science*, 43(1), 268-268.

Available at: <https://scholarworks.uni.edu/pias/vol43/iss1/78>

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X-RAY SCATTERING FROM A LINEAR CHARGE
DISTRIBUTION

G. W. STEWART

In n-alcohols and n-paraffins the molecules lie parallel with such a configuration and distribution of scattering centers that one desires to know the character of x-ray scattering from a linear charge wherein there is a break in the continuity. The computation shows that a certain broken line charge will give a distribution of x-ray somewhat similar to that of two charges separated, not by the distance between their centers of charge but approximately 50 per cent more than this distance.

DEPARTMENT OF PHYSICS,
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IOWA CITY, IOWA.

THE LIQUID STRUCTURE OF N-ALIPHATIC
ALCOHOLS

G. W. STEWART

There is substantial agreement that the molecules of n-aliphatic alcohols lie generally parallel, with the alternate ends of a longitudinal series of molecules being a pair of polar ends and a pair of non-polar ends. The suggestion has been made that there is no transverse space relationship of the polar pairs. The reasons for and against this suggestion are stated and it is concluded that there is high probability that their polar groups in n-alcohols do have a three dimensional space relationship in the liquid state.

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X-RAY EXTINCTION IN PIEZOELECTRICALLY
OSCILLATING QUARTZ

J. R. FREDERICK AND G. W. FOX

Fox and Fraser¹ have investigated the extinction of x-rays in piezoelectric quartz crystals by photographic methods for both the oscillating and non-oscillating cases. Apparent increased blackening of the photographic plate was observed for both the dif-

¹ Unpublished work.