

1935

The Scattering of Potassium Ions in Mercury Vapor

Arthur Rouse
State University of Iowa

Copyright ©1935 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Rouse, Arthur (1935) "The Scattering of Potassium Ions in Mercury Vapor," *Proceedings of the Iowa Academy of Science*, 42(1), 152-152.

Available at: <https://scholarworks.uni.edu/pias/vol42/iss1/62>

This Research is brought to you for free and open access by the Iowa Academy of Science at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

shorter wave length. The remaining 9 or 20.8 per cent occurred when the short wave length was used as the standard. Only 6 out of the 32 markedly color-blind students confused the wave bands in the red and the green. No band below 4950 Å was confused in the green, but all bands studied from 6200 to 6800 Å were almost equally confused with the possible exception of 6600 Å which seemed less disturbing.

The experiments seem to indicate that color-blind subjects do not match colors by intensity and that unequal intensities do not affect color discrimination of relatively pure colors.

DEPARTMENT OF PHYSICS,
IOWA STATE COLLEGE,
AMES, IOWA.

THE SCATTERING OF POTASSIUM IONS IN MERCURY VAPOR

ARTHUR ROUSE

An apparatus has been designed to measure the angular distribution loss of potassium ions scattered in mercury vapor. The range of accelerating voltages was from 20 to 300 volts, and the range of scattering angles was from 60° to 150°. Preliminary curves have been obtained showing the angular distribution and energy loss. A comparison has been made with the theoretical curves of Massey, Mott, and Mohr. The results show what points must be more completely investigated.

DEPARTMENT OF PHYSICS,
STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

THE ZERNIKE AND PRINS METHOD OF COMPUTING X-RAY DIFFRACTION INTENSITIES IN LIQUIDS

DONALD O. HOLLAND AND G. W. STEWART

A study has been made of the nature of the approximation in the Zernike and Prins formula by using it with an ideal simple cubic crystal. The computations show the following:

(1) That the use of one term in addition to the integral term