

1926

Electricity and Mechanics

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Recommended Citation

Eldridge, John A. (1926) "Electricity and Mechanics," *Proceedings of the Iowa Academy of Science*, 33(1), 253-253.
Available at: <https://scholarworks.uni.edu/pias/vol33/iss1/76>

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controlled velocity. In accordance with some earlier observations by Dr. J. A. Eldridge, it is found that the lines divide into two classes. In one class the intensity of the line increases uniformly from zero to a certain limit as the velocity of the electrons increases above the minimum exciting velocity. In the other class the intensity rises rapidly to a maximum at a velocity not far above the minimum exciting velocity, and then decreases to a certain limit. The lines which have so far been found to be in the first class are: $2p_2-2S$, $2p_2-4d_2$, $2P-mD$ ($m = 5, 6, 7, 8$), $2p_2-3d_2$, $2p_1-3d_2$; $2p_2-4D$; and in the second class; $2p_1-3s$, $2p_3-2s$, $2p_1-4s$, $2P-4S$, $2p_1-4d_1$, $2p_1-3d_1$.

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ELECTRICITY AND MECHANICS

JOHN A. ELDRIDGE

When electric charges are in motion the forces between them differ from the electrostatic forces. The magnetic concept is used to take account of these non-electrostatic forces. The magnetic effect of a moving charge is relative to the electrostatic extremely small except when the velocity approaches that of light. However due to the circumstance that the electrostatic effects often, as in a wire carrying a current, practically cancel, the magnetic forces are very important.

According to our present beliefs any field of force changes in an analogous manner if it be moved. There is theoretically the same excuse for speaking of a magnetic field about a moving mass as a moving charge. The difference is that in this latter case the discrepancy from the gravitostatic force is not of practical importance.

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THE SCATTERING OF X-RAYS BY CAMPHOR

ROGER M. MORROW

(*ABSTRACT*)

The ionization chamber method of analysis was used. A Soller slit placed between the scattering material and the x-ray tube, gives a wide beam of nearly parallel rays; one placed between the