

in the surface and that within the apparatus. This gradual occlusion of the air by the zinc surface would therefore appear to account for and to be the cause of the gradual development of the electronic current.

#### IV. SUMMARY OF RESULTS.

1. In the present investigation, it has been shown that when a plate of zinc, with a freshly scraped surface, is placed in a highly exhausted chamber and bombarded by alpha rays, there is an emission of slow moving electrons or delta rays from it at the rate of three electrons for each alpha particle impact.

2. It has also been shown that the emission of electrons from such a plate of zinc under bombardment by alpha rays diminished with the lapse of time from the moment when it was placed in the high vacuum.

3. It has also been shown that initially there is no emission of electrons under bombardment by alpha rays from a surface of zinc deposited from zinc vapour in a high vacuum; but that as time elapses, an electronic emission is gradually developed under the gradual absorption of air by the surface of the zinc deposit.

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