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The Disruption of Potentials within a Raw Potato under Constant Applied Voltage

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for Iron and Cobalt films (Phys. Rev. 30, 681 (1927); 35 292 (1930)). Films about 130 μ thick attain a magnetization of about 380 c. g. s. units in a field of 200 gauss, a value about equal to that for bulk nickel. As in Iron and Cobalt the coercive force is high, but the remanence is somewhat less than was found for iron and cobalt.

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THE DISTRIBUTION OF POTENTIALS WITHIN A RAW POTATO UNDER CONSTANT APPLIED VOLTAGE

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Uniformly shaped sections of raw potatoes were placed between parallel plane electrodes and subjected to a constant potential. The potential drops existing between one electrode and various points in the potatoes were measured. The equi-potential surfaces were found to be planes parallel to the surface of the terminal electrodes. The potentials of these planes were found to vary with time and previous passage of current. The relative size of the probing electrodes used influenced the shape of the potential distribution curves.

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FACTORS INFLUENCING THE ELECTRICAL RESIST- ANCE OF THE POTATO

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Extensive experimentation upon the electrical resistance of raw potatoes has given the following results: (1) the resistance of a uniformly shaped section varies inversely as its cross-sectional area; (2) the resistance is independent of the applied voltage; (3) the resistance of sections taken from a relatively homogeneous part of the tuber varies directly with the length; (4) the cortical layer lengthwise of the potato has the least resistance, the resistances of internal medullary area, the external medullary area, and the outer skin following in the order named. No investigation