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EMISSION OF CONDUCTIVITY ELECTRONS FROM METALS, PRODUCED BY IONS

The number of conductivity electrons ejected from the metal foil by incident ions is calculated in the Born approximation. The interaction between the ion and electrons is approximated by the screened Coulomb potential. The conductivity electrons are treated as an ideal gas, confined in the potential well. Attenuation of the electron wave, excited by an ion inside the crystal, as well as its refraction at the crystal surface are taken into consideration.

Keywords: secondary electron emission, metal strip detectors, ions, conductivity electrons.