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Field electron emission in an external magnetic field parallel to the surface

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The work concerns relativistic effects and the influence of an external magnetic field on the transmission coefficient. The Fowler-Nordheim equation has been relativistically generalized and effect of the Lorentz contraction of a potential barrier at the metal-vacuum interface has been found. Influence of the magnetic field parallel to a metal surface on the transmission coefficient is taken into account when cB < E.

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