Analytic expression for triple-point electron emission from an ideal edge

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(Received 24 September 1997; accepted for publication 25 November 1997)

The electric field in the vicinity of a metallic edge attached to a dielectric half-space is calculated analytically. The resulting electric field is used to evaluate the current emitted from the edge using the Fowler-Nordheim formula. It is shown analytically that the emitted current is proportional to the dielectric coefficient of the material.
[S0003-6951(98)02904-0]