

Abstract Submitted
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Excitation of the Resonance Lines of Copper and Silver by Electron Impact¹ BERNHARD STUMPF, University of Idaho — We present a summary of our experimental investigations of the copper resonance lines 4P-4S (324.8, 327.4 nm) and silver resonance lines 5P-5S (328.1, 338.3 nm) excited by electrons with energies from threshold (3.8 eV) to 1000 eV. Linear polarizations and excitation cross sections have been measured for the unresolved copper resonance lines and for the resolved silver resonance lines. Systematic experimental errors like instrumental polarization, finite solid angle of observation, and radiation trapping have been carefully studied and corrected. Relative experimental cross sections are normalized at an energy of 1000 eV with respect to first Born theory. We compare our experimental data with theoretical calculations using the close-coupling method and the relativistic distorted-wave approximation.

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