

Abstract Submitted
for the DAMOP09 Meeting of
The American Physical Society

Electron impact ionization of ground and metastable states of Ag, Au and Cu¹ M.A. ALI, P.M. STONE, NIST, Gaithersburg, MD — Direct ionization cross sections of metal atoms by electron impact are needed data for plasma physics, gas discharges and atmospheric physics. We present ionization cross sections of the ground states of silver, gold and copper calculated within the Binary-Encounter-Bethe (BEB) model of Kim and Rudd [1]. These are compared with available experimental data for silver and copper [2], very scant and old data for gold and discordant data for copper [3] and the theoretical Plane-Wave-Born [4] and non-relativistic one electron calculational results. We also investigate the importance of ionization from the metastable state of copper for the total direct ionization. [1] Y-K. Kim and M. E. Rudd, Phys. Rev. A **50** 3954 (1994).

¹This work was supported in part by the Office of Fusion Energy Sciences, US DOE.

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Date submitted: 22 Jan 2009

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