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Modelling low energy laser assisted free-free scattering[1] B.A. DEHARAK, K.C. NORTH, R. ZHANG, Illinois Wesleyan University, N.L.S. MARTIN, University of Kentucky — Free-free scattering, particularly when it involves electrons with incident energies below the ionization potential of the target atom, can be a significant contributor to the opacity of a medium. Here we present calculations and Monte Carlo simulations of laser assisted free-free scattering for incident energies from 1 eV to 20 eV using the Kroll Watson Approximation (KWA) [2]. According to the KWA, laser assisted free-free scattering is target independent. Our results are therefore generic for all neutral atomic and molecular species.

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[2]N. M. Kroll and K. M. Watson Phys. Rev. A 8, 804 (1973)

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