

Young-type Interference in Soft Lepton Scattering of Diatomic Homonuclear Molecules

Marcos Barp¹ and Felipe Arretche¹

¹Federal University of Santa Catarina

November 15, 2021

Abstract

Interference patterns in the scattering of positrons and electrons by diatomic homonuclear molecules are ab initio calculated. Our results are compared to model potential calculations with incident particles in twisted and plane wave states. All calculations are obtained in the first Born approximation framework. The comparison of the elastic differential cross sections shows how an ab initio description of the electronic molecular structure influence the interference minima structure. The origin of such patterns are also discussed.

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