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INVESTIGATION OF ELASTIC ELECTRON SCATTERING FROM DESFLURANE MOLECULE AT INTERMEDIATE ELECTRON ENERGY

JELENA VUKALOVIĆ[1,2], JELENA B. MALJKOVIĆ[1], FRANCISCO BLANCO[3], GUSTAVO GARCIA[4] and BRATISLAV P. MARINKOVIĆ[1]

[1] *Institute of Physics Belgrade, University of Belgrade, Pregrevica 118, 11080 Belgrade, Serbia*
E-mail jelena.vukovic@pmf.unibl.org

[2] *Faculty of Science, University of Banja Luka, Mladena Stojanovića 2, 78000 Banja Luka, Republic of Srpska, Bosnia and Herzegovina*

[3] *Departamento de Física Atómica Molecular y Nuclear, Facultad de Ciencias Físicas, Universidad Complutense, Avda. Complutense s/n, E-28040 Madrid, Spain*

[4] *Instituto de Matemáticas y Física Fundamental, Consejo Superior de Investigaciones Científicas, Serrano 121, 28006 Madrid, Spain*

Abstract. Our investigation focuses on the elastic electron scattering phenomenon involving the anaesthetic molecule, desflurane, specifically at a medium energy of 250 eV. Utilizing an experimental setup employing a crossed beam technique, comprising an electron gun, a single capillary gas needle, and a detection system equipped with a channeltron, we measured the differential cross sections. To establish the absolute scale for these cross sections, we employed the relative-flow method, using argon gas as a reference. Our calculations are rooted in the Independent Atom Model (IAM), incorporating the screening corrected additivity rule (SCAR) technique, and account for interference effects.

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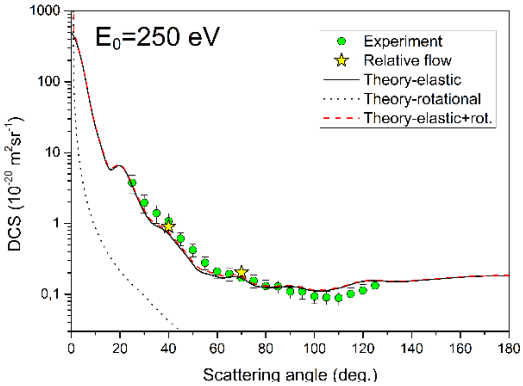

Figure 1: Differential cross section for elastic electron scattering from desflurane at 250 eV.

References

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