

Abstract Submitted
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Rotationally elastic total cross sections for NH₃ on electron impact over a wide energy range¹ MINAXI VINODKUMAR, V.P. & R.P. T.P. Science College, CHETAN LIMBACHIYA, P.S. Science College, BOBBY ANTONY, Indian School of Mines Dhanbad 826004 (INDIA) — Electron molecule collisions are important over incident energy from very low (0.01 eV) to intermediate and high energies (10 keV). We present rotationally elastic total cross sections for electron scattering for NH₃ from 0.01 eV to 2 keV using two different theoretical formalisms. We use Quantemol-N formalism[1] for calculating total cross sections up to threshold of the target and the Spherical Optical Complex Potential (SCOP) method for calculating total cross sections beyond threshold up to 2 keV [2].

[1] J.Tennyson, D. B. Brown, J. M. Munro, I. Rozum, H. N. Varambhia, and N.Vinci, J. Phys.Conf. Series **86**, 012001 (2007).

[2] M. Vinodkumar, K. Korot, and H. Bhutadia, International Journal of Mass Spectrometry **294**, 54 (2010).

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