**Total and total ionization cross sections for NH\textsubscript{x} and NF\textsubscript{x} (x = 1, 2 and 3) on electron impact**\textsuperscript{1} C.G. LIMBACHIYA, P.S. Science College, Kadi, INDIA - 382 715, M. VINODKUMAR, V.P. Science College, V.V. Nagar, INDIA - 388 120, S. GANGOPADHYAY, K.N. JOSHIPURA, Dept.of Physics, S.P. Uni. V.V. Nagar, INDIA - 388 120 — Electron-impact induced ionization cross-sections for NH\textsubscript{3} and NF\textsubscript{3} and their chemically reactive free radicals, NH\textsubscript{X} & NF\textsubscript{X} (x = 1, 2) are relevant to processes in planetary & cometary atmospheres. In this paper we have reported the total (complete) and total ionization cross sections for molecules NH\textsubscript{X} and NF\textsubscript{X} (x = 1, 2 and 3) on electron impact from threshold to 5 keV. We used complex optical potential formalism (SCOP) \textsuperscript{[1]} to calculate the total inelastic cross sections \(Q_{inel}\) and total (complete) cross sections \(Q_{T}\). \(Q_{inel}\) includes \(Q_{ion}\) and we have developed a semi-empirical method, Complex Scattering Potential – ionization contribution (CSP-ic) to extract ionization cross sections \(Q_{ion}\) from calculated \(Q_{inel}\) \textsuperscript{[2]}. **References** \textsuperscript{[1]} M.Vinodkumar, K.N.Joshipura, C.G.Limbachiya & B.K.Antony, Eur. J. Phys. D. \textbf{37} (2006) 67 \textsuperscript{[2]} M.Vinodkumar, K.N.Joshipura, C.G.Limbachiya & B.K.Antony, Phys. Rev A \textbf{74} (2006) 022721

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