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R-matrix calculations of the electron collisions CF_3Cl in the fixed-nuclei approximation¹ MICHAL TARANA, ILYA I. FABRIKANT, Department of Physics & Astronomy, University of Nebraska Lincoln, 510 Stadium Drive, Lincoln 68588 NE, USA — Previous studies on CF_3Cl show a resonance which lead to dissociative electron attachment under standard plasma conditions. Here the R-matrix method is used to treat electron collisions with the CF_3Cl molecule at its equilibrium geometry using a coupled states expansion. These calculations concentrate on obtaining low-energy, sub-6 eV, elastic cross sections and properties of the 2A_1 resonance. Present results are compared with previously published experimental data.

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