

Abstract Submitted
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Nondipole Effects in the Photodetachment of Cl^- JOBIN JOSE, GAGAN B. PRADHAN, VOJISLAV RADOJEVIC¹, PRANAWA C. DESHMUKH, Indian Institute of Technology - Madras, STEVEN T. MANSON, Georgia State University — Calculations of the quadrupole channels for Cl^- photodetachment have been carried out using the relativistic-random-phase approximation (RRPA) over a broad energy range from threshold to several hundred eV. Unlike the dipole channels, shape resonances occur in both 2p and 3s quadrupole photoabsorption; consequently, both subshell cross sections are significantly modified owing to interchannel coupling. The nondipole photoelectron angular distribution parameters exhibit structure that is explained in terms of these shape resonances and Cooper minima in both dipole [1] and quadrupole channels. This work was supported by DST (India), DOE and NSF. [1] V. Radojevic, J. Jose, G. B. Pradhan, P. C. Deshmukh and S. T. Manson, Can. J. Phys. (in press).

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