## Abstract Submitted for the DAMOP16 Meeting of The American Physical Society

The role of dipole resonances in the photodetachment of AgF<sup>-1</sup> N. DOUGUET, Drake University, O. DULIEU, CNRS/Universite Paris-Sud/ENS-Cachan, S. FONSECA DOS SANTOS, Drake University, V. KOKOOULINE, Univ of Central Florida, M. RAOULT, CNRS/Universite Paris-Sud/ENS-Cachan — Dipole electronic resonances could play a significant role in the formation and photodetachment of negative molecular ions by providing a doorway for attachment of a low-energy electron incident on the neutral molecule. In this study, we consider photodetachment of the AgF- anion. Vibrational and rotational degrees of freedom are included in the theoretical approach. Close-coupling equations for the electron motion are solved using the renormalized Numerov method. The photodetachment cross section is computed. It demonstrates a significant effect of the dipole resonances on the photodetachment spectrum. Anisotropy in the photoelectron spectrum near the dipole resonances is studied. Our results are compared with recent experimental data [1]. [1] D. B. Dao and R. Mabbs, J. Chem. Phys. 141, 154304 (2014)

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