Abstract Submitted
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Spin-Orbit Activated Interchannel Coupling Effect in Dipole and Quadrupole Photoionization[1] S. SUNIL KUMAR, P.C. DESCHMUKH, IIT-Madras, T. BANERJEE, Manipal Institute of Technology, S.T. MANSON, Georgia State University — Spin-orbit activated interchannel coupling has been found to affect photoelectron parameters in both the dipole and quadrupole manifolds [1-3]. This effect has been reported in the dipole photoionization parameters of 3d subshells of Xe [1], Ba [1, 3] and Cs [1, 3] and quadrupole spin-polarization parameters of Xe 3d [2]. In the present work, dipole and quadrupole photoionization from 4d and 4p subshells of Xe and 5d and 5p subshells of Rn have been investigated. The effect is significant in dipole photoionization of Xe 4d and Rn 5d, and in quadrupole photoionization of Xe 4p and of Rn 5p states. [1] M. Ya. Amusia, L. V. Chernysheva, S. T. Manson, A. M. Msezane, and V. Radojevic, Phys. Rev. Lett. **88** 093002 (2002). [2] M. Ya. Amusia, N. A. Cherepkov, L. V. Chernysheva, Z. Felfli and A. Z. Msezane, J. Phys. B **38** 1133 (2005). [3] T. Richter, E. Heinecke, P. Zimmermann, K. Godehusen, M. Yalçinkaya, D. Cubaynes, and M. Meyer, Phys. Rev. Lett. **98** 143002 (2007).

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