Photoionization of Atomic Ba in the Region of the $5p-n_1l_1n_2l_2n_3l_3$ Excitations

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This paper investigates the interaction of ultraviolet light, photons, with the valence electrons of atomic Barium. In particular I'm interested in how these valence electrons behave when the atom absorbs one of these photons. That is, the electrons can gain energy from the photon and be ejected from the atom, or in some cases the electron can be promoted to a higher energy state in the atom. When this excited state of the atom decays, it ejects an electron of the same energy as the direct ejection process. The interaction between these two possible pathways can lead to interesting effects.