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Non-dipole angular anisotropy parameters of photoelectrons from semi-filled shell atoms MIRON YA AMUSIA[1], LARISSA V. CHERNYSHEVA, Ioffe Physical-Technical Institute, St.-Petersburg 194021, Russia — We present the results of calculations of outer and next to the outer shell non-dipole angular anisotropy parameters of photoelectrons for semi-filled shell atoms in the Hartree-Fock one-electron approximation and in the frame of the Spin Polarized Random Phase Approximation with Exchange, which takes into account inter-electron correlations. We demonstrate for the first time that this characteristic of photoionization is essentially sensitive to the fact whether the photoelectron has the same or opposite spin orientation to that of the semi-filled shell. This can be detected experimentally since the term-dependence shows up in prominent corrections that are within the already achieved experimental accuracy. Note, that in spite of the fact that the non-dipole anisotropy parameter is usually for low enough photon energies much smaller than the dipole one (equal to 2 for s-subshells), it is quite measurable experimentally almost from the threshold even for He. For details see http://arxiv.org/phys/abs/physics/0606093

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