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METHODS TO DETERMINE PHOTON INDUCED VACANCY ALIGNMENT IN ATOMIC INNER-SHELLS

ABSTRACT : As alignment is fractional difference of magnetic sub-state (j_z) ionization cross-sections, thus, these cross-sections based upon different models and assumptions have been used to determine alignment parameter (A_2). Vacancy alignment also results in anisotropic distribution of x-rays originated from the state; therefore, the distribution measurements of the x-rays lead to A_2 determination. Moreover, the magnetic sub-state ionization cross-sections of an orbital electron lead to projectile energy dependence of x-rays. The determination of A_2 from these methods is being discussed here.