

## Evaluation of Magnetic sub-state Photoionization Cross-sections for Each of L3, M3 and N3 States

**ABSTRACT :** Theoretically, the fractional and absolute magnetic sub-state photoionization cross-sections ( $\sigma_{3/2}(m_j)$ ) for the magnetic sub-states  $m_j = 3/2$  and  $1/2$  of the p<sub>3/2</sub> state of L, M and N shells have been evaluated under non-relativistic dipole approximation for elements in the range  $57 \leq Z \leq 92$  at photon energies threshold to 60 keV. For these calculations, the simplest possible atomic model, the point Coulomb potential, is used as the calculations involve high Z's at moderate energies.