CONTRIBUTION OF THE MIXING RATIO AND ANISOTROPY PARAMETERS OF VACANCY STATES 22.6 KEV PHOTON INDUCED L_3-SUBSHELL

M.R. KAÇAL, F. AKMAN, B. DOĞAN*, R. DURAK* AND N. EKİNCİ**

Department of physics, Ataturk University, Erzurum, Turkey, mustafakacal@hotmail.com, bdogan@atauni.edu.tr, rdurak@atauni.edu.tr, neslihanekinci@yahoo.com
**Department of physics, Bingöl University, Bingöl, Turkey, ferdiakaman55@hotmail.com*

Angular distribution of the *L* x-ray fluorescent lines induced by 22.6-keV x-rays emitted from a Cd-109 radioactive point source has been measured using a Si(Li) detector. For Th, and Ta elements, the anisotropy (β) parameters of $Ll(L_3\text{-}M_1)$, $L\beta_6(L_3\text{-}N_1)$, $L\alpha_{1,2}(L_3\text{-}M_{5,4})$, and $L\beta_{2,15}(L_3\text{-}N_{5,4})$ lines from the angular distribution measurements have been determined. The kinematic coefficients ratios $\alpha(Ll/\ L\beta_6)$ and $\alpha(L\alpha_{1,2}/L\beta_{2,15})$ were obtained from the anisotropy parameters ratios. The obtained results were compared with experimental results and theoretical predictions available in the literature.