K-L VALANCY TRANSFER PROBABILITIES FOR SOME PURE METALS OF MEDIUM ATOMIC NUMBERS

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The probabilities for vacancy transfer from K to L shell, η_{KL} for some pure metals such as Cr, Fe, Co, Cu, Zn, Ga, Se, Y, Mo, Cd, In, Sn, Te and Ba were obtained by measuring the $I_{K\beta}/I_{K\alpha}$ intensity ratios. The targets were irradiated with □photons at 59.5 keV from 50 mCi ^{241}Am radioactive source. The characteristic K X-rays emitted by samples were detected by using a super Si(Li) detector having a resolution of 150 eV at 5.9 keV. The obtained experimental values of vacancy transfer probabilities from K to L shell have been compared with theoretical values. The measured values were in good agreement with theoretical values.

Keywords: Vacancy transfer probability; EDXRF; Super Si(Li) Detector

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