Iranian Journal of Crystallography and Mineralogy, Vol.2, No.2, Autumn 1994

Quantitative X-ray Fluorescent Analysis Without Reference Samples

Baradaran Dilmaghani, S.
Department of Physics, Faculty of Sciences,
University of Tabriz,Tabriz-IRAN.

Mantler, M.
University of Technology,Vienna-Austria.

Key Words: *X-ray Spectroscopy,X-ray Fluorescent,First and Scond Excitations.*

Abstract: quantitative analysis of elements by X-ray spectroscopy has many applications. In order to measure a relative amount of an element in a material it is necessary to use standard samples. However, using too many standard samples with different percent of elements needs a long processing time and calculations. X-rays with definite energies are incident to the sample, penetrate to a certain depth, and excite atomes to emit X-ray fluorescence. The emitted X-ray passes through the sample and reaches the detector. In this work we have calculated exactly the fluorescent intensity throughout its passage in the sample.

[Downloaded from ijcm.ir on 2024-04-23]