14th International Conference on Nuclear Microprobe Technology and Applications



Contribution ID: 17

Type: Poster

P16 - Reconstruction of relief by means of stereo-PIXE for curved target

Friday, 11 July 2014 13:00 (1 hour)

This paper demonstrates an innovative simple technique to reconstruct the irregularities on the surfaces with curved geometry in stereo-PIXE (Particle Induced X-ray Emission) set-up. The method assumes that local inclination of the topographical structure of the object results in X-ray yield asymmetries in two spectrometers mounted on both sides of probing beam. The relief on curved target could be quantitatively reconstructed by comparing the detected yield asymmetries and those calculated from a known non-structure cylindrical sample model of target. The results of measurement on a cone seashell at different position of tip are presented.

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Session Classification: Poster Session with Cheese and Wine