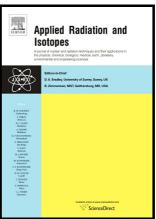
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Mapping ²³⁸U decay chain equilibrium state in thin sections of geo-materials by digital autoradiography and microprobe analysis

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ACCEPTED MANUSCRIPT

Mapping ²³⁸U decay chain equilibrium state in thin sections of geo-materials by digital autoradiography and microprobe analysis.

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Keywords: Uranium, alpha particle, radioactive equilibrium, digital autoradiography, alpha spectrometry

1. Introduction

In sub-surface sediments, soils and rocks, actinides are naturally produced in the decay chains of ²³⁸U, ²³⁵U and ²³²Th. Human activity linked to the nuclear industry also produces artificial actinides such as ²³⁹Pu. Radioisotopes found in these series are alpha or beta

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