



Contribution ID: 14

Type: Poster

History, development and main achievements in sixteen years of the Neutron Activation Analysis based method used for the establishment of the nuclear database at CNESTEN Morocco.

Tuesday, 9 July 2024 17:53 (1 minute)

History, development and main achievements in sixteen years of the Neutron Activation Analysis based method used for the establishment of the nuclear database at CNESTEN Morocco.

Hamid. Bounouira^{1*}, Hamid. Amsil¹, Abdessamad. Didi¹, Iliasse. Aarab¹, and Abdelwahab. Badague¹

¹ National Center of Energy, Sciences and Nuclear Techniques (CNESTEN), Morocco

*E-mail: bounouira2000@gmail.com

Keywords: Neutron activation analysis, Comparative method, k₀-standardization method, TRIGA reactor

Neutron Activation Analysis is a technique used to determine the chemical elemental composition of materials from various matrices. Since the start-up of the Moroccan TRIGA Mark II research reactor in 2007, it has been used by the neutron activation laboratory at the National Centre for Nuclear Energy, Science and Technology (CNESTEN-Morocco). Different approaches of this technique, such as the comparative method utilizing the NADA programme and the k₀-standardisation method, were developed and enhanced at CNESTEN in 2009 and 2013, respectively, for determining multielemental concentrations. The outcomes of proficiency testing revealed which unacceptable data supplied by the NAA technique should be improved throughout time.

This study discusses the history of the NAA technique's development in our NAA laboratory as well as its major accomplishments.

Primary author: Dr BOUNOUIRA, Bounouira (CNESTEN-Maroc)

Presenter: Dr BOUNOUIRA, Bounouira (CNESTEN-Maroc)

Session Classification: Poster Session

Track Classification: Experimental facilities