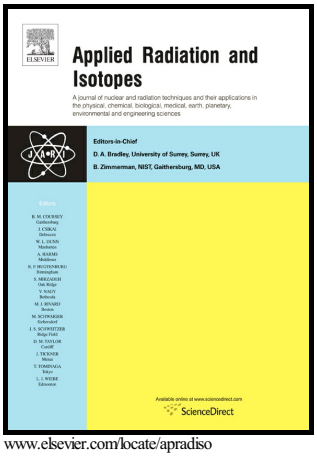

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Coordinated underground measurements of gamma-ray emitting radionuclides for plasma physics research

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Abstract

Forty-eight samples made of CaF_2, LiF and YVO_4 were placed inside the KSTAR Tokamak and irradiated by neutrons and charged particles from eight plasma pulses. The aim was to provide information for plasma diagnostics. Due to the short pulse durations, the activities induced in the samples were low and therefore measurements were performed in five low-background underground laboratories. Details of the underground measurements, together with data on the quality control amongst the radiometric laboratories, are presented.

Keywords

EUFRAT; underground laboratory; gamma ray spectrometry; charged particle activation; neutron activation; fusion plasma