



An Application of Neutron Activation Analysis to Determine the Pathways of Underground Streams using Bark from Eucalypt Trees (Ironbark) within an Afforested Region near Rushworth, Central Victoria

KARL NELMS

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A group of Year 11 students from Trinity Grammar School, Kew, Victoria, together with advice from Dr David Garnett of Becquerel Laboratories, Lucas Heights, devised a program seeking evidence for the delineation of the pathways(s) of underground stream(s) within a uniform region of eucalypt (ironbark) forest in the Rushworth region of Central Victoria.

Bark and soil samples from representative grid sectors within the forest region were prepared for irradiation at HIFAR by the students and onforwarded to Lucas Heights for irradiation. After removal from the reactor the samples are to be analysed for evidence of differential elemental transfer rates in bark and soil.

The display presents examples of the various stages of the overall project resulting from the award to the School of the David Culley Memorial Award of the Australian Nuclear Association.

Assistance throughout the project from Dr David Garnett is appreciated.