

PIXE ANALYSIS TECHNIQUE AND ITS APPLICATION TO GEOLOGY

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The Particle Induced X-ray Emission (PIXE) method is a powerful technique for elemental analysis of micron-sized specimens. With its high sensitivity and capability, this technique has a wide spectrum of applications in geochemical and cosmochemical investigations. The technique was applied to the elemental characterization of magnetic microspherules collected from the Paleozoic and Mesozoic bedded cherts of southwest Japan. From the results obtained, it can be shown that the titanium and chromium contents of spherules can be used as a guide in differentiating between microspherules of terrestrial and extraterrestrial origin.