Analysis of geological material by Inductively Coupled Plasma Spectrometry (ICP-AES)

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Inductively coupled plasma-atomic emission spectrometry (ICP-AES) is a well-established multi-element technique which is routinely used for geochemical analysis.

Using international standards and Malaysian geological materials, it is demonstrated that all the major elements and a wide range of trace elements can be determined by ICP-AES.

The technique displays excellent sensitivity for many low atomic member elements like B, Be, Li, P and S; the alkali earths like Ca, Mg and Sr; refractories like Al, Ti and Zr; the rare-earth elements (REEs), Sc and Y. The number of elements determinable varies depending on the sample type and preparation procedures used.

The ICP-AES technique compares favourably with AAS and XRF for the determination of major and trace elements in a wide range of matrices.

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