WILEY Introduces EKB on Electron Probe Microanalysis

Electron probe microanalysis (EPMA) is an analytical technique widely used for determining the elemental composition of solid specimens. It can produce maps showing the distribution of elements over the surface of a specimen while also accurately measuring their concentrations.

This Essential Knowledge Briefing provides an introduction to EPMA and its capabilities, as well as the latest instrumentation. It begins with explanations of the operation of the instrument, including details of why elements emit characteristic X-rays, and outlines the major steps in the development of EPMA. It also details various practical issues related to the instrument, describes potential problems that may arise and how to solve them, and provides examples of how EPMA is being used by scientists in their research. Finally, it presents prospective future applications and how the scientists developing these innovative applications help to ensure that EPMA continues to stand the test of time.

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Contact

CAMECA SAS
Quai des Grésillons 29
92622 Gennevilliers Cedex
Frankreich
Phone: 0033/1/43346200
Telefax: 0033/1/43346350