A Study on X-Ray Powder Diffraction of Micro Sample

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Abstract: A no-back ground sample holder was prepared by a single quartz crystal, showing no diffraction peaks when 2θ within a range of 120° and low background. Samples of zircon, beryl and bronzes were chosen to be tested. Results show that the data are of good quality, and the composition and relative contents can be identified correctly. The amount of samples needed is from a few milligrams to dozens of milligrams. Therefore, it shows important practical significance.

Keywords: X-ray diffraction; micro sample; no-back ground sample holder