



A Comparison of Mössbauer Spectroscopy and Wet Analytical Chemistry Determination of Iron Cations in Biotite

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Iron content in true trioctahedral mica granules and powders were determined by wet-chemical method. Powdered mica dissolves more readily during acid attack than the granular micas and thus yields higher precision and accuracy. International powdered whole-rock standards were analyzed simultaneously with micas to evaluate the accuracy of the method. High precision Mössbauer spectroscopic Fe^{3+}/Fe^{2+} ratios coupled with the electron microprobe iron determinations were then compared with the wet-chemical data. The results of Fe total determinations through EPMA and UV-visible spectrophotometry show both techniques have same precision (≈ 0.2).