

Laser ablation of aluminosilicates: comparison between allophane and mixed alumina/silicas by Fourier Transform-Ion Cyclotron Resonance-Mass Spectrometry

Laser ablation coupled to Fourier Transform-Ion Cyclotron Resonance-Mass Spectrometry [FT-ICR-MS] was used for analyzing allophane aluminosilicates and mixtures of Al₂O₃/SiO₂. We show that both positive and negative ionization modes in FT-ICR-MS allows direct analysis of the various Al/Si ratios in allophanes and mixed alumina/silica samples. FT-ICR-MS technique provides a routine analytical methodology providing insight into the Al/Si molar composition and the origin of any aluminosilicate materials.

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