

Powder Diffraction PDJ Journal of Materials Characterization



Dependency of the 001 Lattice Spacing of Biotite – K(Mg,Fe)₃AlSi₃O₁₀



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 $C_9H_{11}N_3$

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On the Cover: The cover figures come from the manuscript "Preliminary Examination for Revealing the Provenance Dependency of the Lattice Spacing of Biotite for the Provenance Estimation of Atamadai-type pottery (2500-1500 BC) by XRD" submitted by Shintaro Ichikawa, Kana Miyamoto, and Tsutomu Kurisaki. The 001 plane of Biotite was shown to be free from overlap by lines of quartz and plagioclase, often major minerals in the temper material in Atamadai-type pottery, and the lattice spacing values can be correlated with biotite in rocks from several regions across Japan. The results suggest that additional characterization by complementary techniques such as determining the (Mg/Fe) solid-solution ratio are likely needed for provenance determination.

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