

雲母(層状無機化合物) と水溶性色素(メチレンブルー) との層間化合物の調製¹⁾

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Methylene Blue Intercalation Compound using Mica (Inorganic Layered Compound)¹⁾

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Abstract

The interaction between two types of micas, a natural white mica (muscovite) or a sodium-type synthetic mica (Na-TSM), and methylene blue (MB) of a water-soluble color with or without phosphatidylcholine (PC) was studied. It was found that MB interacts with Na-TSM or muscovite by means of heating without solvents. The chromaticity coordinate (Lab system) of the heat-processed MB with mica was markedly changed (purple → blue) and MB could not dissolve in water with various pH values because of the immobilization of MB in Na-TSM. It was suggested that a new coloring matter (intercalation compound) can be obtained by pigments such as MB in combination with micas.

Key words: mica, methylene blue, phosphatidylcholine, intercalation compound, chromaticity coordinate