UV-protection characteristics of some clays

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Abstract: The potential of various clays including kaolin, smectite, mixed-layer series-dominated clay and mica-dominated clay to protect against ultraviolet (UV) radiation in the range 250-400nm was examined. In order to understand the UV-protection abilities of the clays, properties of the clays were also characterized. The clays blocked UV radiation and bulk Fe_2O_3 content played a key role in the UV-protection properties, whereby the higher the bulk Fe_2O_3 content, the lower the UV-transmission level. However, UV-protection ability also depended on the expandability of the clay or the combination between clay mineral and mixed ointment.
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