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CERAMIC PIGMENTS OBTAINED BY SOLID-STATE SINTERING OF LOESS WITH ADDITION OF Cr_2O_3[1]

Assoc. Prof. Rositsa Titorenkova, PhD
Institute of mineralogy and crystallography
Bulgarian Academy of Sciences
E-mail: rositsatitorenkova@gmail.com

Prof. Tsvetan Dimitrov, PhD
Department of Chemistry and Chemical Technologies
University of Rousse "Angel Kanchev "- Razgrad Branch
E-mail: tz_dimitrow@abv.bg

Assoc. Prof. Yana Tzvetanova, PhD
Institute of mineralogy and crystallography
Bulgarian Academy of Sciences

Assoc. Prof. Dimitar Antonov, PhD
Geological Institute, Bulgarian Academy of Sciences
Bulgarian Academy of Sciences
E-mail: dimia@geology.bas.bg

Abstract: *Loess from the Danubian Plain (Bulgaria) was used as a raw material for the solid-state synthesis of ceramics. The chemical composition and phase composition of the loess were determined using X-ray fluorescence and XRD analysis, respectively. Experiments were carried out with the sintering of loess with the addition of MgO, Na_2O, and Cr_2O_3 in order to obtain ceramic pigments. The phase composition, spectral characteristics and color coordinates of the obtained ceramics sintered at 1000, 1100 and 1200 °C were determined. The results show that the major mineral phases are quartz, augite and chromite. The lightness of the color of the ceramics decreases with the temperature of sintering, which is related to an increase in the amount of chromite in the ceramic.*

Key words: *Loess, ceramic, pigments, augite, color measurement*

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