

SYNTHESIS OF GARNET PIGMENTS AT LOW TEMPERATURE¹

Assistant Fila Yovkova, PhD

Department of Chemical Tehnology
Assen Zlatarov University, Burgas, Bulgaria
e-mail: fila_03@abv.bg

Prof. Irena Markovska, PhD

Department of Chemical Tehnology
Assen Zlatarov University, Burgas, Bulgaria
e-mail: imarkovska@btu.bg

Assoc. prof. Tsvetan Dimitrov, PhD

Department of Chemistry, Food and Biotechnologies
University of Rousse "Angel Kanchev" - Razgrad Branch
e-mail: tz_dimitrow@abv.bg

Abstract: Garnet ceramic pigments were synthesized by the method of solid-phase sintering. The starting materials are pure oxides: CaO, SiO₂.nH₂O. The following elements have been added as chromophores: V, Fe and Cr. For this purpose, the following raw materials were used: NH₄VO₃, Fe₂O₃ and K₂Gr₂O₇. The pigments were synthesized at a final firing temperature of 1000 ° C. The color characteristics of the synthesized ceramic pigments were determined using a color measurement system - CIELab.

Keywords: garnet pigments, solid-state sintering, CIELab color measurement

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