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**SYNTHESIS AND STUDY OF Ni-DOPED WILLEMITE
CERAMIC PIGMENTS¹**

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Abstract: *In this study willemite ceramic pigments, doped with Ni were synthesized. The optimal parameters of the synthesis process have been determined. The willemite is a mineral (zinc silicate) with formula Zn_2SiO_4 . For the production of willemite ceramic pigments in the system NiO-ZnO-SiO₂ we have used the following main materials: ZnO, NiO and SiO₂.nH₂O.*

The willemite ceramic pigments and rice husk ash were studied by X-ray analysis, FT-IR, and scanning electron microscopy. The color of the pigments was determined using a Lovibond Tintometer RT 100 Color.

It has been found that the synthesized pigments are suitable and can be successfully applied in glaze tiles and sanitary ceramics.

Key words: *pigments, colour, ceramic, willemite, CIELab*

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