PROJECT "THEORY AND APPLICATIONS OF SINTER-CRYSTALLIZATION" DN 19/7

Synthesis and possible applications of cermet materials based on Cu/ZrW2O8

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Abstract: The synthesis of new composite materials is one of the proven methods for obtaining products with new combined properties. Such a material is also a composite obtained on the basis of Cu/ZrW_2O_8. Its advantage over other cermets obtained on the basis of copper is a decrease in its coefficient of thermal expansion (CTE). Previous studies report on how this composite can be obtained using isostatic hot pressing and reveal a number of difficulties with its production and disadvantages in potential use. This study provides an overview of the possible applications of this material and the main methods of its production.