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Sintering of Composite Ceramic based on Corundum with Additive in the Al2O3-TiO2-MnO System

Authors : Aung Kyaw Moe, Lukin Evgeny Stepanovich, Popova Nelya Alexandrovna

Abstract : In this paper, the effect of the additive content in the Al₂O₃-TiO₂-MnO system on the sintering of composite ceramics based on corundum was studied. The samples were pressed by uniaxial semi-dry pressing under 100 MPa and sintered at 1500 °C and 1550 °C. The properties of composite ceramics for porosity and flexural strength were studied. When the amount of additives increases, the properties of composite ceramic samples are better than samples without additives.

Keywords : ceramic, composite material, sintering, corundum
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