

THE INFLUENCE OF THE ELABORATION'S CONDITIONS ON THE MICROSTRUCTURE OF A CERAMIC MATERIAL OBTAINED BY FREEZE-DRYING

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Abstract

Freeze-drying is a dehydration proceeding of the products in a frozen state, which is based on the ice sublimation process. It is a method, which leads to a very good homogeneity of the products, and it allows obtaining very fine powders, which directs to reducing the sintering temperature. The microstructure was characterized by SEM. The microstructure of these polycrystals is clean, homogeneous with lens-shaped glassy pockets at triple-points and there is no evidence for continuous films.

Keywords

Elaboration, ceramic material, microstructure, freeze-drying