

INFLUENCE OF SINTERING TIME
ON THE MICROSTRUCTURE AND ELECTRIC
PROPERTIES OF LOW-VOLTAGE ZINC
OXIDE-BASED VARISTOR CERAMICS

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S u m m a r y

The results of experimental researches obtained for a varistor ceramics on the basis of zinc oxide are reported. The influence of the sintering time of the ceramics on its electric properties and microstructure is studied. The increase in the sintering time of ceramics is found to result in a broadening of the grain distribution spectrum over the grain size and in a shift of its maximum toward larger values. Specific features in the grain size distribution are revealed. It is found that, at the long-term sintering, the large grains form conductivity channels, with the barrier structure of the varistor ceramics being not destroyed, which gives rise to the growth of the real and imaginary components of the complex dielectric permittivity.