

STUDY OF ELECTRICAL CONDUCTIVITY
IN WO₃-DOPED NONSTOICHIOMETRIC LiTaO₃

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S u m m a r y

The results of experimental and analytical studies of the electrical conductivity for different solid solutions synthesized in a vicinity of LiTaO₃ in the ternary system Li₂O-Ta₂O₅-(WO₃)₂ are presented. It is shown that the electrical conductivity increases linearly with the Curie temperature. The experimental conductivity between 200 and 700 °C was measured using an LCR bridge HP4192A on ceramics sintered at 1250 °C. Within the theoretical approach to the defect structure analysis combined with our proposed vacancy models, the theoretical results are in a good agreement with the experimental data.