

## Synthesis, Structure and Functional Characteristics of Solid Electrolytes Based on Lanthanum Niobates

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**Abstract :** The solid solutions of lanthanum niobates substituted by yttrium, bismuth and tungsten were synthesized. The structure of the solid solutions is either LaNbO<sub>4</sub>-based monoclinic or BiNbO<sub>4</sub>-based triclinic. The series where niobium is substituted by tungsten on B site reveals phase-modulated structure. The values of cell parameters decrease with increasing the dopant concentration for all samples except the tungsten series although the latter show higher total conductivity.

**Keywords :** impedance spectroscopy, LaNbO<sub>4</sub>, lanthanum ortho-niobates, solid electrolyte

**Conference Title :** ICSSC 2016 : International Conference on Solid State Chemistry

**Conference Location :** Barcelona, Spain

**Conference Dates :** February 15-16, 2016