

**The Serbian Ceramic Society  
Vinča Institute of Nuclear Sciences, University of Belgrade  
Institute for Multidisciplinary Research, University of Belgrade  
Institute of Physics, University of Belgrade**

# **PROGRAM AND THE BOOK OF ABSTRACTS**

**1st Conference of the Serbian Ceramic Society  
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Snežana Bošković  
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Jasmina Grbović Novaković**

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## FAR INFRARED AND MICROSTRUCTURAL STUDIES OF MECHANICALLY ACTIVATED NICKEL MANGANITE

S.M. Savić<sup>1</sup>, M.V. Nikolić<sup>1</sup>, K. M. Paraskevopoulos<sup>2</sup>, T.T. Zorba<sup>2</sup>, K.  
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Nickel manganite powder was mechanically activated in a high energy planetary ball mill for 5-60 min. Then the powders were pressed and sintered for 60 minutes at 900<sup>0</sup>C, 1050<sup>0</sup>C and 1200<sup>0</sup>C. Morphological changes of nickel manganite ceramics were monitored using scanning electron microscopy, while changes in structural characteristics were followed using X-ray diffraction. Far infrared reflectivity spectra at room temperature for all sintered samples were recorded in the frequency range between 50 and 1200 cm<sup>-1</sup>. Transversal and longitudinal optical modes were calculated for six ionic oscillators (four strong, and two shoulders) belonging to the partially inverse spinel structure of nickel manganite.