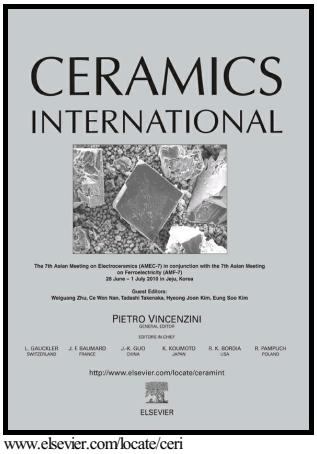

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Influence of growth temperature on the microstructure and electrical transport properties of epitaxial $NiCo_2O_4$ thin films

Wenzhe Guo[1], Congmian Zhen[1*], Chunfang Wu[1], Xiancheng Wu[2], Guoke Li[3], Li Ma[1], Denglu Hou[1]

[1]Institute of Physics, Hebei Advanced Thin Films Laboratory, Hebei Normal University, Shijiazhuang 050024, China

[2]Institute of Science and Technology for Opto-electronic Information, Yantai University, Shandong, 264005, China

[3]Department of Mathematics and Physics, Shijiazhuang Tiedao University, Shijiazhuang 050043, China

[*]Corresponding author. cmzhen@hebtu.edu.cn.

Abstract

In the work reported here, $NiCo_2O_4$ films were grown epitaxially on $LaAlO_3$ (111) substrates at temperatures between room temperature and 700 ^oC. The effects of the substrate temperature (T_{sub}) on the structural, electrical and magnetic properties and on the Hall effect of the film were investigated. T_{sub} has a great influence on the cation disorder. High T_{sub} makes substitution of Ni (Oh) for Co (Td) easier, and changes the relative Ni^{3+}/Co^{3+} concentration. The film grown at 400 ^oC had a