Contribution ID: **48** Type: **Poster presentation**

Microstructure and Impedance Properties of $Sr_{0.4}Ca_{0.6}La_4Ti_5O_{17}$ Ceramics Doped with ZnO

Thursday 21 May 2015 13:00 (3h 30m)

The microstructure and impedance properties of $Sr_{0.4}Ca_{0.6}La_4Ti_5O_{17}$ ceramics were studied and determined. The ceramic was doped with 1, 2 and 3% mol of ZnO and prepared using mixed oxide method. It was sintered at the temperature of 1,400 °C for 3 hours. The x-rays diffraction (XRD) technique and scanning electron microscope (SEM) were employed to exam the ceramics microstructure. In addition, the impedance properties of the ceramics were studied and characterized. It was found that the single phase which is $SrTiO_3$ was appeared in 3% mol of doped ZnO ceramic. The ceramic had the cubic crystal structure with the space group Pm-3m and the average of grain size was in the range of 0.9 − 0.99 micrometer. Moreover, the ceramics behaved as a semiconductor with maximum value of real and imaginary parts of impedance equal to 8.23×10^5 and 6.39×10^6, respectively.

Author: Ms SRIKEAWNAWAN, Supunnee (Department of Physics, Faculty of Science, Thaksin University Songkhla Campus, Songkhla, THAILAND 90000)

Co-authors: Dr CHUSIRI, Nikom (Department of Physics, Faculty of Science, Thaksin University Songkhla Campus, Songkhla, THAILAND 90000); Dr KESSARATIKOON, Prasong (Department of Physics, Faculty of Science, Thaksin University Songkhla Campus, Songkhla, THAILAND 90000); [redacted] (Department of Physics, Faculty of Science, Thaksin University Songkhla Campus, Songkhla, THAILAND 90000)

Presenter: Ms SRIKEAWNAWAN, Supunnee (Department of Physics, Faculty of Science, Thaksin University Songkhla Campus, Songkhla, THAILAND 90000)

Session Classification: Poster-3

Track Classification: Material Physics, Nanoscale Physics and Nanotechnology