

# Microstructure and Dielectric Properties of $(1-x)\text{BaTiO}_3-x\text{Ba}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ Ceramics

**Anocha Munkdee**

*Chiang Mai University - + 66*

## **Abstract**

The evolutions of phase, microstructure and dielectric properties of solid solution of  $\text{BaTiO}_3$  and  $\text{Ba}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$  were studied. From the result, the solid solutions exhibit the ferroelectric phase for low additions of  $\text{Ba}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$  (0-4 mol%) while for high additions (over 4 mol%) the samples show the paraelectric state at room temperature. The relative permittivity of 2 mol% doped specimens was found to be considerably highest about 40000 at 98 °C.