

나노복합재료에서의 유기용매의 영향

박재준, 안준호*, 황병준

중부대학교, 홍익대학교*

Effect on Organic Solvent of Fabrication Processing in Epoxy Nanocomposites

Jae-Jun Park, Joon Ho Ahn* and Byung-Joon Hwang

Joongbu Univ., Hongik Univ.*

Abstract : The nano-technology becomes a key technology in every field and it wasn't specialized any more. But nano-technology didn't applied every fields actively. Because It is difficult to fabricate the nanocomposites using nano-partie without aggregation of nano-size particles. So many researcher used organic solvent for dispersion in polymer nanocomposites. But organic solvent affected the electrical, mechanical, and thermal properties in the sample. We aimed this point that investigated the effect of organic solvent in the sample by evaporated temperature(60, 80, 100°C). In results, nano-particles affected to electrical properties of the sample due to decrease the energy gap. And at 120 Hz, impedance value of samples by varied evaporated temperature was decreased only at 60°C dramatically. It's means that organic solvent role to impurities and decreased the activation energy. And these impurities contributed to the conductivity in the sample.

Key Words : 나노복합재료, 유기용매, 전기적 특성, 주파수 응답

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