

## Fabrication of Organic-Inorganic Hybrid Thin Film by Molecular Layer Deposition

한규석<sup>1</sup>, 김수환<sup>2</sup>, 한기복<sup>3</sup>, 성명모

한양대학교 화학과

Organic-inorganic hybrid materials have attracted because of its combined properties, such as flexibility and high electrical performance. In addition, the hybrid materials are expected to have synergic effect which are not shown in just one component.

Here, we fabricated organic-inorganic hybrid thin film. Organic-inorganic hybrid thin film have been deposited from diethyl zinc and 1, 2, 4-trihydroxybenzene (THB) by molecular layer deposition (MLD). UV-VIS, Using Infrared spectrum and X-ray photoelectron spectroscopy confirm that Zinc and THB hybrid film (ZnTHB) consist of Zn-O and THB - oxide units and the micro structure and composition of hybrid film. hat the sequential surface reactions of diethyl zinc and ethylene glycol are sufficiently self-limiting and saturating to enable well-controlled MLD growth. Transmission electron microscopy image shows lamination growth of ZnTHB film according to cycle.