

<발표 II-2>

Structures of Solvent-free C60 Thin Films Prepared by Vacuum
Sublimation

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Previously We reported the crystal structure of C60 thin films formed by solution casting method, In this case, C60 was deposited on silicon, glass, and KBr substrates by vacuum sublimation method, The raw material was prepared by the contact-arc method and then separated by column chromatography. The purity of initial sample and the deposited film was determined by mass spectrometry and FT-IR, respectively, Surfaces of the thin films were observed by SEM. It was found that the substrate material and a trace of solvent strongly influenced the morphology of thin films. The molecular stacking of C60 deposited on KBr(100) and carbon film was investigated by TEM and in this case the crystal system is very probably to be fcc rather than hcp. The carbon microtubules which were originally reported by S. Iijima of NEC were also prepared and investigated by TEM.