

Processing of Large Monolayer Films of Graphene Using Langmuir-Blodgett Technique and Their Electric Properties

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The extremely high mobility of graphene at various temperatures due to the quantum Hall effect for both electron and hole carrier make it a strong candidate material in electronic filed. These properties are much dependent on the number of graphene layer, size and functionalization as well. Nevertheless, novel and simple methods to produce highly conductive graphene films still needed. In this paper, we discuss the processing parameters leading to the production of a monolayer graphene films. We also discuss their electrical conductivity and graphene-graphite transition.

Biography:

Mohammed is a third-year Ph.D. Candidate student at Wright State University/Department of Mechanical and Materials Engineering. He finished his master's degree at Wright State University, material department. His main research area is in processing 2D material. Also, his research focuses on polymer composites, micromechanics and phase transitions in Nano-structured material systems. He served as teaching assistant in material department of Wright State University. He is also a member in The Society for the Advancement of Material and Process Engineering (SAMPE).