

Abstract Submitted  
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**Characterization of Stacked Transparent-Conductive Graphene Films** AMAL KASRY, Research Scientist, AGEETH BOL, Research Staff Member, IBM T.J. WATSON RESEARCH CENTER COLLABORATION, EGYPT-IBM NANOTECHNOLGY RESEARCH CENTER COLLABORATION — Graphene is a 2D material that exhibits very interesting optical and electronic properties. In this work, several graphene layers, prepared by the chemical decomposition of a carbon containing gas on a metal surface, were transferred and stacked on different kinds of substrates. The effect of the number of layers on both conductivity and transparency was studied. The stacked layers were doped with different materials which lead to an increase in the conductivity of the layers. AFM, SEM, XPS and sheet resistance measurements were used for characterization of the graphene layers. The improved conductivity of the stacked films can be of great value for some optical and electronic applications.

Amal Kasry  
Research Scientist

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