
Colloquium

Doing Materials Science with 2D Atomic Layers

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There has been tremendous interest in recent years to study two-dimensional atomic layers which form building blocks of many bulk layered materials. This was initiated by the spectacular discovery of graphene. This talk will focus on the materials science of graphene and the emerging field of 2D atomic layers beyond graphene. Several aspects that include synthesis, characterization and device fabrication will be explored with the objective of achieving all 2D functional structures for future technologies. The concept of nanoscale engineering and the goal of creating new artificially stacked van der Waals solids will be discussed through a number of examples including graphene and other 2D layer compositions. The talk will explore the emerging landscape of 2D materials systems that include graphene, boron-nitrogen-carbon systems, and a large number of transition metal dichalcogenide compositions. Some of anticipated applications of these materials will also be discussed.

Friday, Jun 5th 2015

11:30 AM (Tea/Coffee at 11:15 AM)

Seminar Hall, TCIS