

Seminar

Covalent and Non-Covalent Mesoscopic Interfaces of Atomic Layers and Carbon Nanotubes for Electrical and Electronic Applications

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Various mesoscopic nano-structures are synthesized via covalent and non-covalent interfaces. Heterostructure based on 2-dimensional materials such as Graphene and MoS₂ is formed via van der Waals interaction, a non-covalent interaction. On the other hand, Carbon nanotubes (CNT) are attached covalently via small molecule incorporation. Electrocatalytic activities like hydrogen evolution reaction (HER), oxygen evolution reaction (OER), oxygen reduction reaction (ORR) and CO₂ reduction reaction (CRR) have been studied both with experimentally and theoretically whenever it is required. Finally, several futuristic electronic devices application has been predicted with covalently coupled CNT.

Wednesday, Feb 19th 2020

4:00 PM (Tea/Coffee at 3:30 PM)

Seminar Hall, TIFR-H