




Webinar #11

Prof. Pulickel M. Ajayan

*Department of Materials Science and NanoEngineering
Rice University, Houston, Texas, USA*

Title: Hybrid Materials from 2D Atomic Layer Building Blocks

 26th July 2022, 9.00 – 10.30 am IST

Registration link: <https://tinyurl.com/yh56xz4y>

Biography

Prof. Pulickel M. Ajayan is a pioneer in the area of nanotechnology. He has published more than 1250 journal papers earning more than 180,000 citations and h-index >200 (google scholar). His work covers diverse areas of nanomaterials including nanoparticles, nanotubes, diamond, 2D materials, nanocomposite, energy storage materials and 3D printing. He is the Benjamin M. and Mary Greenwood Anderson professor of Engineering at Rice University and the founding chair of the department of Materials Science and NanoEngineering. He is the recipient of several awards such as the Spiers memorial award, MRS medal, Alexander von Humboldt-Helmoltz senior award, and lifetime nanotechnology award from the Houston Technology Center. He received Docteur Honoris Causa from the Universite Catholique de Louvain and distinguished alumni recognition from his Alma Mater Banaras Hindu University and the Materials Science department at Northwestern University. His research is funded through federal agencies (NSF, DoD, DOE) and several Industrial sponsors. He maintains a large research group with around 30-40 members including research scientists, post-doctoral fellows, graduate students and undergraduates.

Abstract

There has been tremendous interest in recent years to discover, explore and demonstrate unique properties and applications of 2D materials. This talk will focus on the materials science of 2D atomic layers and their hybrid architectures. Several aspects that include synthesis, characterization and manipulation will be discussed with the objective of achieving functional hybrid materials based on 2D atomic layers. The concept of artificially stacked van der Waals solids, atomically thin planar heterojunctions, and 2D layers based 3D constructs will be discussed using a number of examples consisting of varying 2D atomic layer compositions. Specifically, the talk will discuss multicomponent 2D alloys and artificially stacked hybrid van der Waals architectures.

Panelist



Prof. Puru Jena
Distinguished Professor
Virginia Commonwealth University
USA

Zoom meeting details will be shared with the registered participants

Convener:

Prof. Yoshiyuki Kawazoe

Head, ACCMS-GRC
SRMIST, KTR

Organizers:

Dr. V.J.Surya and Dr.S. Yuvaraj

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