

## **Seminar**

### **Functional Hybrid Materials for Rechargeable Batteries**

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Rechargeable Lithium/Sodium-ion batteries that deliver higher energy and power densities are highly essential to meet the growing energy demand from portable electronics and automotive sectors. In this regard, trade-off between specific energy and power densities in these systems needs to be addressed with newer storage mechanisms. Designing efficient anode and cathode materials with improved kinetics and long cycle life is important to realize the practical implementation of this technology. Here, some of our recent efforts on the design and fabrication of hybrid nanostructured electrode materials for sodium-ion batteries and hybrid ion capacitors will be discussed and some of the key challenges will be addressed. Further, our recent studies on the design and synthesis of tailored polyimide based electrodes for organic-based sodium-ion batteries will also be presented.

***Monday, Oct 8<sup>th</sup> 2018***

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

***Auditorium, TIFR-H***