

## **Internal Webinar**

### **Fluorescent Metal Hybrid Nano-perovskite: Synthesis and Applications**

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My talk will comprise of brief introduction of perovskite nanocrystals followed by details of tunability, stability and charge transfer studies will be discussed. A new approach in which fine tunability in optical studies has been observed in samples P1 to P9 by systematic physical mixing of already prepared  $\text{CH}_3\text{NH}_3\text{PbI}_3$  and  $\text{CH}_3\text{NH}_3\text{PbBr}_3$  nanoparticles. Stability of  $\text{CH}_3\text{NH}_3\text{PbBr}_3$  perovskite nanocrystals by encapsulation in silica gel G and investigating bidentate ligand as succinic acid is performed and utilized in developing keypad lock. Bright luminescent perovskites have been synthesized through centrifugation of solution processed with ligand assisted reprecipitation technique (LARP) and leads to ultralong micro-belts of  $\text{MAPbI}_3$ . At last, Charge transfer studies between perovskite nanocrystals with rhodamine dye B and carbon nanotubes will be shown.

***Friday, Feb 19<sup>th</sup> 2021***

***09:30 AM***