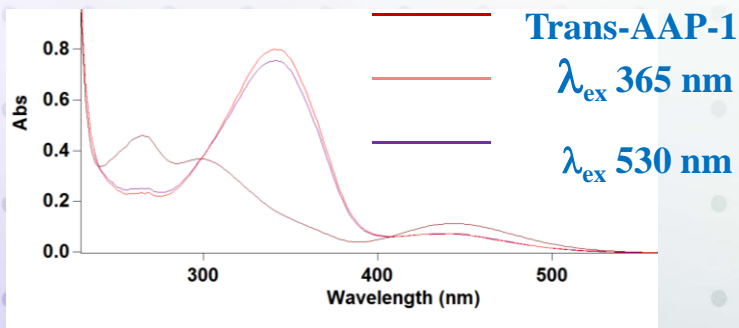
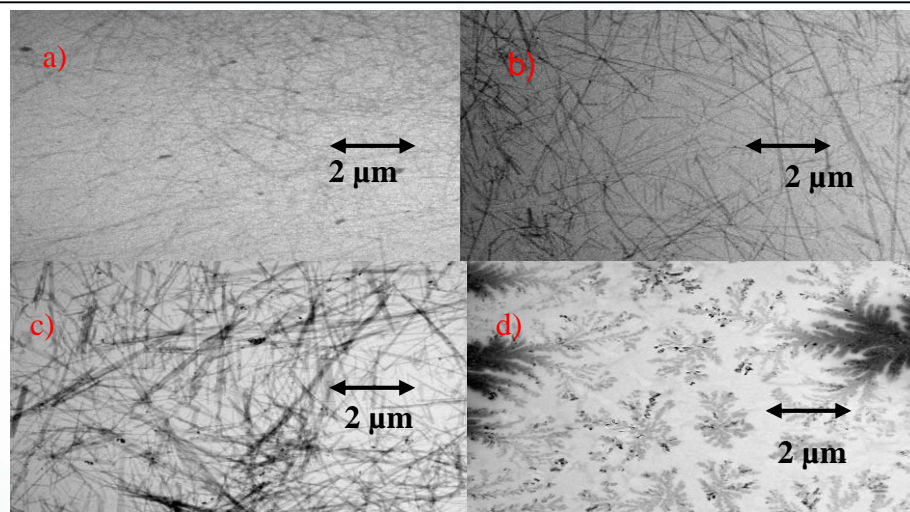


Fabrication of metallohydrogels with light-induced *gel-to-sol* phase transitions.



Fabrication of Photo-switchable Metallohydrogels



TEM images of Photoswitchable Metallohydrogels



Outreach activities :

Students exploring the properties of magnetic nano-materials at Exploratory Saturday event, Dec 2019.

Photoswitchable Metallohydrogels – Switchable Catalysis

- Tunable luminescence, Sensing, Drug delivery, and water purification



Optoelectronic Materials Research at Hampton University

Halide Perovskites

- > Solar energy applications
- > Optoelectronics (lasers, LED's)
- > Radiation Detection



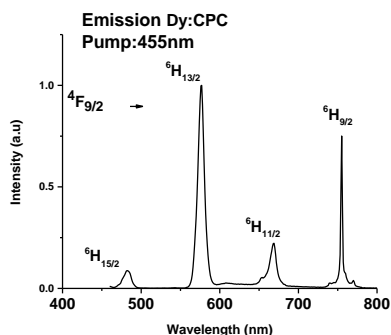
Material Development at HU

- > Bridgman crystal growth of perovskites
- > microwave-assisted quantum dot synthesis

Optical Spectroscopy: Emission Studies

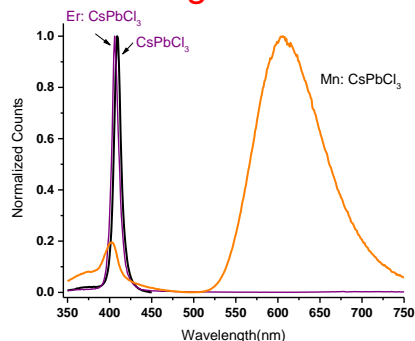
Dy: CsPbCl₃

“Yellow Emission”



Mn: CsPbCl₃

“Orange Emission”



Bulk Crystal

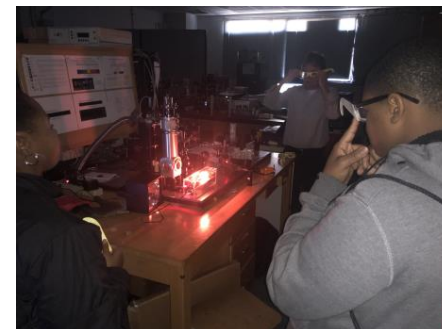
Dy: CsPbCl₃



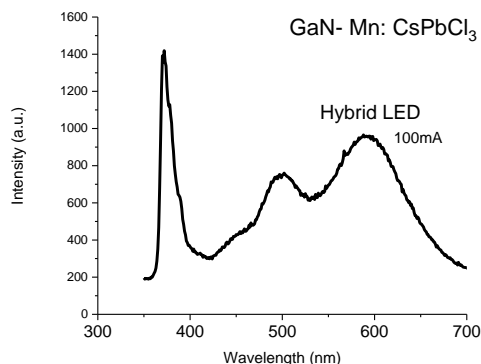
Nano-particles

CsPbCl₃ & Mn: CsPbCl₃

Outreach



White light hybrid GaN-Mn: CsPbCl₃ LED



Exploratory Saturday, Dec 2019

Lab demos in Physics, Optical Materials & Lasers

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