UIC COLLOQUIUM Department of Physics

Wednesday, November 20, 2019

"Advanced High-Energy Na and Li-Ion Batteries Enabled by New Materials"

Dr. Christopher Johnson *Argonne National Laboratory*

The need for energy storage and its rising demand has become a major issue that the world faces today and going forward in the future. Lithium-ion (Li-ion) batteries are widely used for energy storage in a myriad of portable consumer applications and now are being employed heavily for transportation (BEV) and grid-storage technologies. High volumetric energy density and low weight of the batteries have enabled new devices for many applications. The specific energy and power of Li-ion batteries continues to grow as high-performance anode and cathode materials become commercially available. This presentation will focus on advanced materials, for example, the evolution of NMC cathodes used in the industry, and their chemistry for Li-ion battery applications and also emerging low-cost Na-ion batteries as energy storage chemistry for electrical grid applications.

The Department of Physics Colloquium will be held at 3pm in 238 SES.

*Refreshments will be served from 2:45 pm to 3pm outside of room 238 SES