

SPECIAL SEMINAR - Monday, November 3<sup>rd</sup>  
Lees-Kubota Lecture Hall, Guggenheim 101  
11:15am-12:15pm



“Perovskite Solar Cells: Towards New  
Materials and New Applications”

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Abstract:

Perovskite solar cells have attracted a lot of attention primarily due to its high efficiency (~19%). Much of the attention has focused on  $\text{CH}_3\text{NH}_3\text{PbI}_3$  (Eg-1.55eV) whose high performance can be traced to a high absorption coefficient as well as long range balanced electron-hole diffusion lengths.  $\text{CH}_3\text{NH}_3\text{PbI}_3$  has been demonstrated to work with multiple device configurations and compatible with many organic and inorganic semiconducting materials. However, further development of perovskite solar cells requires the utilization of Pb free perovskites. This talk will cover my group’s progress in perovskite solar cells as well as efforts in tuning the materials composition of the  $\text{ABX}_3$  with substitutions at each of the sites.

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