

HYBRID HALIDE PEROVSKITES - NOT JUST SOLAR CELLS

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Lead-halide perovskite crystals have emerged as promising materials for inexpensive and efficient solar cells. The surge in solar cell conversion efficiency stimulated intensive scrutiny of the fundamental properties of halide perovskites.

I will review the current pending fundamental questions in the field and show that they are rooted in the unusual structural dynamics of this class of materials. Next, I will present a low-frequency Raman scattering study aimed to elucidate the nature of their structural dynamics.

Finally, I will discuss possible implications of structural dynamics on the electronic properties and explain what makes the halide perovskites a unique class of semiconductors.

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CFEL
SEMINAR ROOMS I-III

