

Perovskites in Modern Analytical Chemistry: Engineered Fluorescent Sensing

Analytical Seminar

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Lynn Krushinski

Graduate Student, Purdue University

Abstract:

Perovskites are an incredibly diverse set of materials which play a pivotal role in our everyday lives. Perovskites can not only be found in everyday devices such as inkjet printers, motion detectors, and speakers but a wide variety of others which span across numerous fields owing to their seemingly limitless configurations and highly tunable properties. While current perovskite-centric research is mainly focused on their photovoltaic capabilities and applications within solar cells, their role in modern analytical chemistry cannot be ignored. Photostability, tunable emission wavelength, and high quantum yield make perovskite nanomaterials (specifically quantum dots) ideal for fluorescent sensing applications. This seminar will introduce perovskites, describe their role in modern analytical chemistry, and show their utility as engineerable fluorescent sensors.