

Understanding and developing low-dose halide perovskite X-ray detectors

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Halide perovskites are generating excitement for low-cost yet high-performance optoelectronic devices. Recently they have demonstrated enormous potential for radiation detection such as X-rays as scintillator or direct detector device platforms.

Here, I will give a summary of our group's efforts towards understanding and developing halide perovskites for X-ray detector applications. Topics will include studies investigating the fundamental radioluminescence mechanism in perovskite scintillator materials and developing sensitive photon counting perovskite detectors. I will also summarise overall capabilities and directions in the group in this area.

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