



第273回 OPERA研究交流セミナー

第264回 ISIT有機光エレクトロニクス研究特別室セミナー

第331回 未来化学創造センターセミナー



日時: 2026年3月24日(月) 15:00~

場所: ISI棟3階 セミナー室

Cathodoluminescence Spectroscopy for Visualization and Control of Emitter-Resonator Coupling

Dr. Hikaru SAITO

Associate Professor, Kyushu University

Cathodoluminescence (CL) combined with electron microscopy has a nanoscopic spatial resolution far beyond the diffraction limit of light, offering nanoscopic characterization of light-emitting materials and nano-optical devices. However, unlike other spectroscopies based on optical excitation methods like photoluminescence, the electron beam lacks excitation energy selectivity. Therefore, discrimination of coherent (e.g. plasmon resonances) and incoherent CL (electron transitions) emissions is not trivial, making characterization of emitter-resonator coupling complicated in many cases. In this talk, I will introduce advanced CL methods to evaluate emitter-resonator coupling in light-emitting materials combined with plasmonic resonators. Furthermore, recently, electron beam nanofabrication has been applied to the precise arrangement of nanomaterials. I will also introduce the precise arrangement of perovskite nano-light sources discovered by my group.

主催:九州大学 最先端有機光エレクトロニクス研究センター
:財団法人九州先端科学技術研究所(ISIT)
共催:九州大学 未来化学創造センター