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Synchrotron Light as a Tool to Unravel Luminescent Processes in Next-Generation Materials

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The application of synchrotron radiation light sources has revolutionized materials research by offering unique capabilities for studying the structure, electronic properties and energy relaxation dynamics of materials at unprecedented levels of detail. In particular, use of pulsed synchrotron radiation is the most efficient way to provide necessary time and energy resolution of the excitation in the VUV photon energy range. Luminescence arising from such excitation allows to study impurity/defect states, excitation energy transfer, elucidation of energy relaxation pathways and recombination mechanisms of electronic excitations, to study surface structure that is all together extremely important for study of the electronic structure and properties of materials with a wide bandgap.

Type of presence

Presence online

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