

Internal Webinar

Unveiling the delayed luminescence in boron–nitrogen systems: fundamentals, applications, and the path to multi-resonance emitters

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The advancement of organic room-temperature phosphorescence (RTP) and thermally activated delayed fluorescence (TADF) materials holds great promise for applications ranging from materials science to biology. Despite rapid progress, the structure–property relationships remain insufficiently understood, yet they are crucial for designing molecules with targeted properties. This talk addresses this gap through systematic structural and photophysical studies on aminoboranes and substituted borylanilines, highlighting their practical applications in optoelectronics, bioimaging, and anticounterfeiting technologies. The discussion will further extend to the development of narrow-band multi-resonance (MR)- TADF emitters, a futuristic class of materials that combine high efficiency with exceptional colour purity, ideally suited for OLED displays, advanced lighting, and high-resolution imaging.

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11:30 Hrs

