

Oral Presentation

[MEET2]EL Quantum Dots Technologies

Special Topics of Interest on Quantum Dot Technologies

Chair: Frank Yan (Fuzhou University)

Co-Chair: Jang Hyuk Kwon (Kyung Hee University)

Thu. Nov 28, 2019 5:20 PM - 6:40 PM Conference Hall (1F)

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[MEET2-1(Invited)]Quantum Dot Electroluminescence to Achieve Saturated Colours for REC2020 Compatibility

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Keywords:Electroluminescent quantum dots, Cd Free Quantum Dots, InP/ZnS QDs, CdSe/ZnSe/ZnS QDs, Qleds

Using solvent based surface engineering of sol-gel derived ZnO electron injector, red QLEDs with a current efficiency of

32.6 cdA⁻¹ and a power efficiency of 18.6 lmW⁻¹ at 1000 cdm⁻² for Cd based QDs. We also report dark red electroluminescent InP/ZnS QDs (x,y = 0.672, 0.325)) with a maximum current and power efficiency of 3.6 cdA⁻¹ and 4.7 lmW⁻¹ respectively.