



e-conversion



Seminar announcement

Monday, July 11, 2022

2:30 pm

WSI, Seminar room S 101

also ONLINE via ZOOM

<https://tum-conf.zoom.us/j/64124846588>

Meeting-ID: 641 2484 6588

Kenncode: 922378

“Infrared colloidal quantum dots”

Since the late 1990s, colloidal quantum dots have been explored as infrared absorbing and emitting chromophores. Devices have been demonstrated, and the performance are gradually improving, getting closer to providing low-cost high definition infrared/thermal imaging, and light emitting devices. Our group's effort is primarily in the mid-infrared where we aim to better define the infrared transitions (2-12 microns, interband or intraband) , to improve the control of the Fermi level of the dots, to facilitate charge transport across dots, and to better understand the non-radiative processes including Auger. These studies are necessary to push the device performance, are they also show interesting similarities and differences with bulk or epitaxial semiconductors.

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