ACS Local Section
Portland
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Portland Section Meeting Notice

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Quantum Dot Synthesis for Applications in Solid State Lighting

a talk by

Dr. Bob Fitzmorris
Staff scientist at AMS-OSRAM

Thursday March 13, 2025, 6:30-9 PM

Helioterra Winery
2025 SE 7th Ave.
Portland, OR 97214

This event includes a catered dinner from a local Portland eatery,
and a short talk by a local Portland student.
This event is all ages welcome and encouraged.

Reserve your dinner before the event for $25/person ($15 for undergraduate students, high school teachers, unemployed members).
$5 added for tickets purchased at the event.

Please contact Irving Rettig for any questions.

Dinner Reservations

Schedule: Doors open at 6:30pm on Thursday March 13th

Helioterra Winery is a women-owned and operated small scale winery.
Wines are available from Helioterra for purchase,
as well as beer and non-alcoholic beverages.

Abstracts and Bios next page.

Speaker Bio

Bob Fitzmorris is a staff scientist and key expert in quantum dots at AMS-OSRAM where he has been researching and developing quantum dots for applications in solid state lighting since 2016. Bob grew up in Aloha, Oregon and earned a degree in chemistry from Pacific University in Forest Grove. Bob earned a PhD in physical chemistry under Jin Z. Zhang at UC Santa Cruz, focusing on the synthesis and ultrafast spectroscopy of quantum dots and other semiconductor nanostructures. He returned to Oregon to post doc in the chemical engineering department at Oregon State University where he studied scalable approaches to quantum dot synthesis. After teaching for two years, he joined the AMS-OSRAM quantum dot team in Portland, then Pacific Light Technologies, where he has focused on the synthesis of quantum dots for LED applications.

Abstract

Quantum Dot Synthesis for Applications in Solid State Lighting. Quantum dots (QDs) are semiconductor nanocrystals with size dependent absorption and emission spectra. The discovery of QDs and innovation in QD synthesis was the subject of the 2023 Nobel prize in chemistry, a recognition of the widespread application of QDs in displays, biotechnology, and solid state lighting. We will discuss the synthesis of quantum dots in general, and the progress AMS-Osram has made in the use of QDs to improve the energy efficiency of room lighting.