# AIChE Rocky Mountain AIChE News

#### September 2021

# September Section Meeting Ubiquitous: Quantum Dots and their use in Agriculture

At UbiQD (Ubiquitous Quantum Dots), we aim to make our namesake true – making QDs a standard part of all aspects of life. By using CuInS2, a non-toxic, low cost and more stable material than traditional QDs, we are working to make this happen, with an emphasis on solar windows (luminescent solar concentrators) and agriculture. Our main product, UbiGro, is a QD/polymer nanocomposite that is used in greenhouses to modify the solar spectrum in such a way that increases plant yield. An overview of UbiGro, including some technical challenges of bringing a product to market, will be discussed.



#### Volume 31 Number 1

## **Topic:** Ubiquitous: Quantum Dots and their use in Agriculture **Speaker:** Dr. Taylor Moot of UBiQD (Ubiquitos Quantum Dots) Date: Tuesday, September 14th Time: 6:00 – Career Discussion 6:15 – Presentation and Q & A **Cost:** Free, Registration Required Online Zoom meeting Location:

**September Section Meeting** 

# **REGISTRATION REQUIRED.**

More information can be found on our <u>website</u>.

# **Register**

After you register, you will receive instructions via email for joining the meeting.

Taylor Moot received her B.S. in Chemistry from the University of Rochester in 2013 and then went on to receive her PhD in materials chemistry from the University of North Carolina - Chapel Hill in 2017. After her PhD she became a post-doc at the National Renewable Energy Laboratory and studied perovskite solar cells. Throughout her PhD and Post-Doc she was an active member in many professional organizations, including the Material Research Society and Employee Resource Groups. In 2020 she became a Senior Scientist at UbiOD where she currently works dot on quantum nanocomposites for agriculture applications.

## THANK YOU LETTERS FROM SCIENCE FAIR WINNERS

Project Title: Identification and Characterization of the Natural Sweetener: Brazzein

#### Dear AICHE

Thank you so much for your award. I am saddened that I was not able to attend the virtual meeting as I had received the letter/award later than expected.

Sincerely

Angelina Wang

Project Title: Separating Microplastics from Beach Sand Using a Fluidized Air Bed

Dear AICHE

Thank you for the award at CSEF and allowing me attend your meeting.

I enjoyed discussing my project with the AICHE judges and hearing the feedback

You've inspired me to learn more about chemical engineering as a potential degree path and I appreciate your support of STEM education.

Best regards

Sean Brooks

*Project Title: Wildlife Debris Mitigation and Feasibility for use in emergency Water Filtration Systems* 

## Dear AICHE

Thank you for interviewing us and for your interest in our project. We appreciate you chose us for a 2nd Place award.

We entered the National Science Fair for Middle Students, Broadcom Masters, in Washington DC.

We are very excited to present our project again. Thank you for your support

Sincerely

Presley Wilson and William Wilson

# AIChE Meetings

2021 Aug 30-Sep 2 65th Annual Safety in Ammonia Plants and Related Facilities **Symposium** Virtual Sept 13-15 **10th International** Congress on Sustainability Science & Engineering Virtual Sept 29 Pandemic Advance Capabilities & Engineering (PACE): Current **COVID** Challenges Virtual Nov 7-19 2021 AIChE Annual Meeting Boston Nov 7-11 Virtual Nov 15-19

#### National AIChE Contact Info

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The objectives of AIChE are to advance chemical engineering in theory and practice, to maintain a high professional standard among its members, and to serve society, particularly where chemical, engineering can contribute to the public interest. AIChE Rocky Mountain is a public non-profit 501(c)(3) organizations and thus all donations are tax deductible.

# **MEETING SCHEDULE**

The Rocky Mountain Local Section (RMLS) of AIChE generally meets the second or third Tuesday of every month, September through May.

## **CALL FOR PRESENTERS**

Do you have a presentation to share with our AIChE group? We are looking for presenters for our 2021-22 program year. Contact <u>Nick Thornburg</u> at <u>nicholasthornburg2017@u.northwestern.edu</u>