



Advanced Materials for Hydrogen Infrastructure Technologies Workshop

Wednesday, May 22nd, 2024

SAMPE Conference and Exhibition
Long Beach Convention Center
Long Beach, CA

WORKSHOP OBJECTIVES

- Inform the wider materials and process engineering community of the state-of-the-art of advanced materials, such as fiber reinforced composites, for hydrogen infrastructure applications.
- Understand current challenges and opportunities to enable large-scale advanced materials utilization in hydrogen infrastructure applications.
- Identify potential research and development strategies that can reduce the cost and improve the performance of advanced materials used in hydrogen infrastructure components.

AGENDA

9:00 – 9:20 am	DOE Hydrogen Program Overview & Workshop Goals - Zeric Hulvey , DOE Hydrogen and Fuel Cell Technologies Office
9:20 – 9:50 am	Hydrogen Infrastructure Technologies - Potential Roles and Applications for Composites - Asha-Dee Celestine , DOE Hydrogen and Fuel Cell Technologies Office
9:50 – 10:20 am	Composites Development for Clean Hydrogen Manufacturing - John Winkel , DOE Advanced Materials and Manufacturing Technologies Office
10:20 – 10:30 am	<i>Break</i>
10:30 – 11:00 am	Carbon Fiber R&D for Hydrogen Infrastructure Technologies - Amit Naskar , Oak Ridge National Laboratory
11:00 – 11:30 am	Low-Cost Carbon Fiber for Onboard Hydrogen Storage - Duane Byerly , Hexagon Agility
11:30 am – 12:00 pm	High-Strength Hollow Carbon Fiber for Compressed Gas Storage Tanks - Matthew Weisenberger , University of Kentucky
12:00 – 2:00 pm	<i>Lunch</i>
2:00 – 2:30 pm	Onboard Damage Detection in Carbon Fiber Composites in Hydrogen Storage Tanks - Joshua Biller , TDA Research



- 2:30 – 3:00 pm Advanced Material Technologies for Hydrogen Delivery and Storage -
Andrea Haight, Composite Technology Development
- 3:00 – 3:30 pm Composite Systems for Hydrogen Transmission and Localized Storage -
Mike Peters, IQ4H2
- 3:30 – 3:40 pm *Break*
- 3:40 – 4:10 pm Sustainable Composites for Hydrogen Delivery and Storage - **Kevin
Simmons**, Pacific Northwest National Laboratory
- 4:10 – 4:20 pm Conclusion and Wrap up – **Zeric Hulvey**, DOE Hydrogen and Fuel Cell
Technologies Office
- 4:20 – 5:00 pm Open Discussion