

Telluride Science Workshop

High Temperature Energy Conversion: Electrochemical Oxidation and Reduction Mechanisms

15 June – 19 June, 2024

Telluride Intermediate School

721 West Colorado Avenue

Organizers: Jeff Owrutsky (Naval Research Lab)
Rob Walker (Montana State University)

Details:

Badge pickup

Friday, 14 June, 5:00 – 6:30 pm at Alibi(250 W. San Juan Ave)

Saturday, 15 June starting at 8:00 AM at the Telluride Intermediate School

Telluride Science Town Talk

Tuesday, 18 June, 6:30pm, Telluride Conference Center in Mountain Village

Ethics of Emerging Technologies: The Era of Artificial Intelligence

*Teresa Head-Gordon
Pitzer Theory Center
University of California, Berkely*

Telluride Science picnic

Monday, 17 June, 5:30 – 7:30 pm, tent outside of Telluride Intermediate School. (Family and friends welcome free of charge.)

Telluride Science workshops are intended to extend the frontiers of science by providing a uniquely inspiring, relaxed environment for face-to-face discussion and collaboration among scientists, engineers, theorists, and experimentalists from around the world. To meet this goal, Telluride Science provides the common ground for addressing critical scientific challenges, focusing new questions, and catalyzing the discovery of answers.

The workshop organizers fully support Telluride Science in its mission and ask that all participants focus on emphasizing new results and directions for their research programs, rather than simply presenting a ‘canned’ seminar. The forum of Telluride Science talks is intended to promote ‘real-time’ discussion of research results, motivations, and strategies. Consequently, we ask that all participants plan to present no more than ~40 minutes of material in anticipation of questions and comments filling the balance of each 1-hour slot.

Saturday, 15 June

8:30 am – Welcome and general instructions from Telluride Science Management
8:45 – 9:45 am Anil Virkar (University of Utah)
9:45 – 10:45 am Chuancheng Deng (Kansas State University)
10:45 -11:00 am *Break*
11:00 – 12:00 pm Meng Li (Idaho National Lab)
12:00 – 1:00 pm Jeff Owrutsky (Naval Research Lab)

Sunday, 16 June

9:00 – 10:00 am Bob Kee (Colorado School of Mines)
10:00 – 11:00 am Anke Hagen (Danish Technical University)
11:00 – 11:15 am *Break*
11:15 – 12:15 pm William Maza (Naval Research Lab)
12:15 – 1:15 pm *Hot Questions (1)

Monday, 17 June

8:30 – 9:30 am Neal Sullivan (Colorado School of Mines)
9:30 -10:30 am Peter Holtappels (Karlsruhe Institute of Technology)
10:30 – 10:45 am *Break*
10:45 – 11:45 am Michael Pomfret (Clean Energy Institute, U. Washington)
11:45 – 12:45 pm *Hot Questions (2)

Tuesday, 18 June

8:30 – 9:30 am Ryan O’Hayre (Colorado School of Mines)
9:30 – 10:30 am Kevin Huang (University of South Carolina)
10:30 – 10:45 am *Break*
10:45 – 11:45 am Xingbo Liu (West Virginia University)
11:45 – 12:30 pm **Roundtable – Future Opportunities in High Temp Energy Conversion

Wednesday, 19 June

8:30 – 9:30 am Viola Birss (University of Calgary)
9:30 -10:30 am Jason Nicholas (Michigan State University)
10:30 – 11:30 am Rob Walker (Montana State University)
11:30 am closing remarks

**Hot Questions* – Participants are welcome to raise a single issue/challenge in the general area of energy conversion and present it in ≤ 3 minutes. The format will be rapid-fire. Participants can use a white board or a single PowerPoint slide (or simply use words w/ no visuals). Each question will be followed by up to 5 minutes of discussion. (This format follows a tradition from earlier Gordon Conferences where a PI was allowed to present a topic for discussion using a single overhead transparency.)

***Roundtable* – Participants are welcome to be a part of a conversation about the future of high-temperature energy conversion research and development with an emphasis on solid state devices. The discussion will consider opportunities, limitations and knowledge gaps that must be bridged in order for ceramics-based electrochemical technologies to play a larger role in existing power distribution strategies.