

# FRONTIERS OF MATERIALS RESEARCH: A DECADAL SURVEY

## AGENDA

**Thursday, July 27, 2017**

Berthoud Hall, Colorado School of Mines, Colorado

---

**Open SESSION**

---

- 8:00 a.m. – 8:30 a.m.      **Working Breakfast (in the meeting room)**
- 8:30 a.m. – 8:45 a.m.      **Welcome**  
Study Co-chairs and the Colorado School of Mines (CSM)
- 8:45 a.m. – 10:15 a.m.      **Panel 1: Materials in Global Grand Challenges**  
    **Tzahi Cath**, Director, Advanced Water Technology Center, CSM  
    **Rod Eggert**, Director, Critical Materials Institute, CSM  
    **Mike Gazarik**, VP Engineering, Ball Aerospace  
    **Nancy Haegel**, Director, Materials Science Center, NREL  
    **John Poate**, VP Research emeritus, CSM  
    **Stein Sture**, Vice Chancellor Res. emeritus, CU-Boulder
- 10:15 a.m. – 10:30 a.m.      Break
- 10:30 a.m. – 10:50 p.m.      **Perspective on deliberate design and discovery of functional materials with target properties**  
    **Alex Zunger**, Physics, CU-Boulder
- 10:50 a.m. – 11:10 a.m.      **Steel: a lot left to learn**  
    **John Speer**, Director, Adv. Steel Proc. and Prod. Res. Center, CSM
- 11:10 a.m. – 11:30 a.m.      **Ceramics: not just pottery and bricks**  
    **Ivar Reimanis**, Director, CO Center for Advanced Ceramics, CSM
- 11:30 a.m. – 11:50 a.m.      **Soft Matter: beyond polyethylene and polystyrene**  
    **Noel Clark**, Director, Soft Materials Research Center, CU-Boulder
- 12:00 p.m. – 1:00 p.m.      Lunch
- 1:00 p.m. – 2:30 p.m.      **Panel 2: New Frontiers for Traditional Materials Classes**  
    **Frank Anderson**, VP R&D, CoorsTek Advanced Ceramics  
    **David Marshall**, Mech. & Aerospace Eng., CU-Boulder  
    **Margaret Murnane**, Physics & Elec./Comp. Eng., CU-Boulder  
    **Amy Clarke**, Director of CANFSA, CSM  
    **Melissa Krebs**, Chemical and Bio. Eng., CSM

---

**CLOSED SESSION**

---

- 2:30 p.m. – 4:00 p.m.      **Committee Closed session issues.**  
    All Members (only)

**Friday, July 28, 2017**

Berthoud Hall, Colorado School of Mines, Colorado

---

Open SESSION

---

- 8:00 a.m. – 8:30 a.m.      **Working Breakfast (in the meeting room)**
- 8:30 a.m. – 8:50 a.m.      **Risk and Materials in Harsh Operating Conditions**  
Sylvia Johnson, emeritus Chief Mat. Technologist, NASA
- 8:50 a.m. – 10:20 a.m.      **Panel 3: Reducing Deployment Risk for New Materials/Structures**  
Jim Fekete, Material Measurement Laboratory, NIST  
Seth Miller, President, Heron Scientific  
Corinne Packard, Met. & Materials Eng., CSM and NREL  
Nicole Smith, CSM  
Reginald Stilwell, Head of Innov. & Development, Allosource
- 10:20 a.m. – 10:35 a.m.      Break
- 10:35 a.m. – 10:55 a.m.      **Rethinking Materials Processing**  
Geoff Brennecka, Met. & Materials Engineering, CSM
- 11:00 a.m. – 12:30 p.m.      **Panel 4: Advanced Materials Fabrication/Integration**  
Craig Brice, Research Scientist, Lockheed Martin  
Arrelaine Dameron, Director of R&D, ForgeNano  
Jerry Martin, CEO, Synthio Chemicals, LLC  
Karin Payne, Director, Regen. Orthopedics Lab, CU-Denver  
Andriy Zakutayev, Staff Scientist, NREL
- 12:30 p.m. – 1:30 p.m.      Lunch
- 1:30 p.m. – 2:00 p.m.      **Thank you and wrap up**  
Study Co-chairs and the Colorado School of Mines

---

CLOSED SESSION

---

- 2:00 p.m. 5:00 p.m.      Adjourn

## FRONTIERS OF MATERIALS RESEARCH: A DECADAL SURVEY

Webex connection for Thursday, July 27<sup>th</sup> is listed below.

---

### Meeting information

---

Topic: FRONTIERS OF MATERIALS RESEARCH: A DECADAL SURVEY

Date: Thursday, July 27, 2017

Time: 8:00 am, Eastern Daylight Time (New York, GMT-04:00)

Meeting Number: 742 796 355

Meeting Password: ceramics

---

### To join the online meeting

---

Go to

<https://nationalacademies.webex.com/nationalacademies/j.php?MTID=mf98a8da1c174743c2ceef73760decbad>

---

### Teleconference information

---

Provide your phone number when you join the meeting to receive a call back.

Alternatively, you can call:

Call-in toll-free number: 1-(866) 668-0721 (US)

Call-in number: 1-(845) 977-0098 (US)

Show global numbers:

<https://www.tcconline.com/offSite/OffSiteController.jsp?cc=4686623325>

Conference Code: 468 662 3325