

# 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.	<b>Working Breakfast (in the meeting room)</b>
8:30 a.m. – 8:45 a.m.	<b>Welcome</b> Study Co-chairs and the Colorado School of Mines (CSM)
8:45 a.m. – 10:15 a.m.	<b>Panel 1: Materials in Global Grand Challenges</b> <b>Tzahi Cath</b> , Director, Advanced Water Technology Center, CSM <b>Rod Eggert</b> , Director, Critical Materials Institute, CSM <b>Mike Gazarik</b> , VP Engineering, Ball Aerospace <b>Nancy Haegel</b> , Director, Materials Science Center, NREL <b>John Poate</b> , VP Research emeritus, CSM <b>Stein Sture</b> , Vice Chancellor Res. emeritus, CU-Boulder
10:15 a.m. – 10:30 a.m.	Break
10:30 a.m. – 10:50 p.m.	<b>Perspective on deliberate design and discovery of functional materials with target properties</b> <b>Alex Zunger</b> , Physics, CU-Boulder
10:50 a.m. – 11:10 a.m.	<b>Steel: a lot left to learn</b> <b>John Speer</b> , Director, Adv. Steel Proc. and Prod. Res. Center, CSM
11:10 a.m. – 11:30 a.m.	<b>Ceramics: not just pottery and bricks</b> <b>Ivar Reimanis</b> , Director, CO Center for Advanced Ceramics, CSM
11:30 a.m. – 11:50 a.m.	<b>Soft Matter: beyond polyethylene and polystyrene</b> <b>Noel Clark</b> , Director, Soft Materials Research Center, CU-Boulder
12:00 p.m. – 1:00 p.m.	Lunch
1:00 p.m. – 2:30 p.m.	<b>Panel 2: New Frontiers for Traditional Materials Classes</b> <b>Frank Anderson</b> , VP R&D, CoorsTek Advanced Ceramics <b>David Marshall</b> , Mech. & Aerospace Eng., CU-Boulder <b>Margaret Murnane</b> , Physics & Elec./Comp. Eng., CU-Boulder <b>Amy Clarke</b> , Director of CANFSA, CSM <b>Melissa Krebs</b> , Chemical and Bio. Eng., CSM
2:30 p.m. – 4:00 p.m.	<b>CLOSED SESSION</b> <b>Committee Closed session issues.</b> All Members (only)

**Friday, July 28, 2017**  
Berthoud Hall, Colorado School of Mines, Colorado

**Open SESSION**

8:00 a.m. – 8:30 a.m.	<b>Working Breakfast (in the meeting room)</b>
8:30 a.m. – 8:50 a.m.	<b>Risk and Materials in Harsh Operating Conditions</b> <b>Sylvia Johnson</b> , emeritus Chief Mat. Technologist, NASA
8:50 a.m. – 10:20 a.m.	<b>Panel 3: Reducing Deployment Risk for New Materials/Structures</b> <b>Jim Fekete</b> , Material Measurement Laboratory, NIST <b>Seth Miller</b> , President, Heron Scientific <b>Corinne Packard</b> , Met. & Materials Eng., CSM and NREL <b>Nicole Smith</b> , CSM <b>Reginald Stilwell</b> , Head of Innov. & Development, Allosource
10:20 a.m. – 10:35 a.m.	Break
10:35 a.m. – 10:55 a.m.	<b>Rethinking Materials Processing</b> <b>Geoff Brennecka</b> , Met. & Materials Engineering, CSM
11:00 a.m. – 12:30 p.m.	<b>Panel 4: Advanced Materials Fabrication/Integration</b> <b>Craig Brice</b> , Research Scientist, Lockheed Martin <b>Arrelaine Dameron</b> , Director of R&D, ForgeNano <b>Jerry Martin</b> , CEO, Synthio Chemicals, LLC <b>Karin Payne</b> , Director, Regen. Orthopedics Lab, CU-Denver <b>Andriy Zakutayev</b> , Staff Scientist, NREL
12:30 p.m. – 1:30 p.m.	Lunch
1:30 p.m. – 2:00 p.m.	<b>Thank you and wrap up</b> Study Co-chairs and the Colorado School of Mines
2:00 p.m. 5:00 p.m.	Adjourn

**CLOSED SESSION**

## FRONTIERS OF MATERIALS RESEARCH: A DECADAL SURVEY

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

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### Meeting information

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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

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### To join the online meeting

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Go to

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

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### Teleconference information

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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)

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

Conference Code: 468 662 3325