

## OFFICIAL WORKSHOP SCHEDULE

North American Workshop on Critical Mineral  
Research, Development, and Education  
August 13-14, 2025  
Thompson Conference Center

### WEDNESDAY, AUGUST 13, 2025

#### CONVENTIONAL AND UNCONVENTIONAL SOURCES OF CRITICAL MINERALS

<b>8:30-9:00</b>	Welcome and Opening Remarks <i>Marek Locmelis, Workshop Chair</i> <i>Claudia Mora, Jackson School of Geosciences Dean</i>
<b>9:00-9:30</b>	Keynote Speaker <i>Jeffrey Mauk – United States Geological Survey</i>
<b>9:30-10:00</b>	Keynote Speaker <i>Daniel Alessi – The University of Texas at Austin</i>
<b>10:00-10:30</b>	Oral Presentations <i>10:00-10:15 Kristina Butler – The University of Texas at Dallas</i> <i>10:15-10:30 Rona Donahoe – University of Alabama</i>
<b>10:30-10:45</b>	Break
<b>10:45-12:00</b>	Oral Presentations <i>10:45-11:00 Jorge Crespo – Nevada Bureau of Mines and Geology</i> <i>11:00-11:15 Toti Larson – The University of Texas at Austin</i> <i>11:15-11:30 Stefanie Brueckner – Laurentian University</i> <i>11:30-11:45 Jeffrey Catalano – Washington University in St. Louis</i> <i>11:45-12:00 Margaret Goldman – United States Geological Survey</i>
<b>12:00-13:30</b>	Lunch and Posters (Sessions 1A & 1B) <i>TCC 3.102</i>

#### CRITICAL MINERALS WORKFORCE DEVELOPMENT

How to grow the US critical minerals workforce

<b>13:30-14:00</b>	Keynote Speaker <i>Leah Turner – CUAHSI</i>
<b>14:00-14:30</b>	Keynote Speaker <i>Robert Bodnar – Virginia Tech</i>
<b>14:30-15:45</b>	Oral Presentations <i>14:30-14:45 Joe Biasi – University of Wyoming</i> <i>14:45-15:00 Tetteh &amp; Motlagh – Freeport McMoRan Inc./ New Mexico Tech</i> <i>15:00-15:15 James Kubicki – UTEP</i> <i>15:15-15:30 Clémentine Hamelin – William &amp; Mary</i>
<b>15:30-16:00</b>	Break
<b>16:00-17:00</b>	Panel discussion: Critical Minerals R&D in the light of recent Executive Orders

<b>17:00-18:30</b>	Happy Hour and Posters <i>TCC 3.102</i>
<b>19:00-21:00</b>	Workshop Dinner (reservation only) <i>Texas Science and Natural History Museum at The University of Texas at Austin</i>

## THURSDAY, AUGUST 14, 2025

### TOWARDS A CIRCULAR ECONOMY

Innovations in critical mineral extraction and recycling

<b>8:30-9:00</b>	Day 2 Welcome <i>Wen Song, Cockrell School of Engineering</i> <i>Roger Bonnecaze, Cockrell School of Engineering Dean</i>
<b>9:00-9:30</b>	Keynote Speaker <i>Douglas Wicks – Department of Energy ARPA-E</i>
<b>9:30-10:00</b>	Keynote Speaker <i>Jesica Urbina – Infinite Elements</i>
<b>10:00-10:30</b>	Oral Presentations
10:00-10:15	<i>Emma Zhang – George Mason University</i>
10:15-10:30	<i>Benton Wilcoxon – Critical Elements Extraction Technology</i>
<b>10:30-10:45</b>	Break
<b>10:45-12:00</b>	Oral Presentations
10:45-10:00	<i>Ben Ruchte – IXRF, Inc.</i>
11:00-11:15	<i>Bridget Scanlon – Bureau of Economic Geology</i>
11:15-11:30	<i>Yihan Li – The University of Texas at Austin</i>
11:30-11:45	<i>Wencai Zhang – Virginia Tech</i>
11:45-12:00	<i>Andrew Gordon – Iofina Natural Resources</i>
<b>12:00-13:30</b>	Lunch and Posters

### POLICY AND SUPPLY CHAIN ECONOMICS

Reshoring critical mineral production

<b>13:30-14:00</b>	Keynote Speaker <i>Simon Jowitt – University of Nevada-Reno</i>
<b>14:00-14:30</b>	Keynote Speaker <i>Jani Das – Bureau of Economic Geology</i>
<b>14:30-15:45</b>	Oral Presentations
14:30-14:45	<i>Karin Olson Hoal – Cornell University and CSIRO</i>
14:45-15:00	<i>Holiday O'Bryan – The University of Texas at Austin</i>
15:00-15:15	<i>Monika Ehrman – SMU Dedman School of Law</i>
15:15-15:30	<i>Homay Fath – Nevada Bureau of Mines and Geology</i>
15:30-15:45	<i>Jim Kennedy – Caldera Holding LLC</i>
<b>15:45-16:00</b>	Break
<b>16:00-17:30</b>	Breakout sessions: Critical Minerals R&D in the light of recent Executive Orders

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## POSTER PRESENTATIONS (TCC 3.102)

Critical Mineral Potential in Heavy Minerals from Industrial Sand Mines, Central Texas

*Brent Elliott, Bureau of Economic Geology*

Historic Resources and Critical Mineral Opportunities in The Central Texas Graphite District

*Shelby Short, Bureau of Economic Geology*

Geochemical and isotopic constraints on lithium enrichment in sedimentary claystone deposits: a summary of ore deposit models from Clayton Valley, CA; Barstow, CA; and the McDermitt Caldera, NV-OR

*Catherine Gagnon, Brown University*

Exploratory drilling of lignites exhibiting rare earth element enrichment in the Williston Basin of North Dakota

*Levi Moxness, North Dakota Geological Survey*

Hyperspectral imaging for rare earth elements in regional coal ash samples from Navajo Mine, New Mexico

*Ammar Hussain, University of Houston*

Excess Water Precludes the Enrichment of Critical Elements in Pegmatites

*Ludmila Fonseca Teixeira, Smithsonian Institution*

Exploring for Critical Minerals in the Organ Mountains of Dona Ana New Mexico

*Raul Valencia, The University of Texas at El Paso*

Critical Minerals in Carbonatites: Magmatic and Wall Rock Interaction in the Kaiserstuhl Complex (Southwest Germany)

*Anis Parsapoor, Independent Researcher*

$\mu$ -XRF Atlas of Epithermal and Porphyry Deposit Textures

*Aaron Atkins, The University of Texas at El Paso*

Zircon Age and Oxidation State Estimates for Plutons Spatially Associated with Mineral Deposits Along The Kettle Detachment Fault in The Orient Quadrangle, Northeastern Washington

*Karla Ortega, Central Washington University*

Supergene formation of sulfur-rich, tochilinite-bearing serpentinites in the Oman ophiolite

*James Andrew Leong, Miami University*

Rare Earths in Bunker Hill Pyromorphite

*Kenneth Befus, The University of Texas at Austin*

Supporting Critical Minerals Workforce Development in Undergraduate Courses in Mineralogy and Igneous and Metamorphic Petrology

*Katherine McCarville, Minot State University*

Exploration for Rare-Earth Elements in the Altamaha Grit using Laser-Induced Breakdown Spectroscopy

*Aaron Ball, Keystone Geoscience LLC*

Durability assessment of LMO-PVDF composite materials for long-cycle lithium extraction from flowback and produced water

*Fangshuai Wu, University of Alberta*

Direct lithium extraction from formation waters using modified lithium manganese oxide adsorbents  
*Karthik Ramachandran Shivakumar, University of Alberta*

Integrated Recovery of Critical Minerals and Supplementary Cementitious Materials from Legacy Coal Ash Ponds  
*Abdulmaliq Alawod, The University of Alabama*

Structural Modification of Coal Tailings for Enhanced Rare Earth Extraction  
*Lawrence Ajayi, Northeastern University*

SEM-based characterization of Minerology and Textures in Rocks at  
BEG-eMAGE Laboratory  
*Priyanka Periwai, Bureau of Economic Geology*

Enhancing the circular economy potential of mine tailings by recovering valuable metals and utilizing them in concrete production  
*Saleh Ali Khawaja, University of Arizona*

Advanced Technologies for Sustainable Critical Mineral Recovery  
*Wenchang Jin, Texas A&M*

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