TEXAS Geosciences
The University of Texas at Austin
Jackson School of Geosciences

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	
8:30-9:00	Welcome and Opening Remarks *Marek Locmelis, Workshop Chair* *Claudia Mora, Jackson School of Geosciences Dean*
9:00-9:30	Keynote Speaker *Jeffrey Mauk – United States Geological Survey*
9:30-10:00	Keynote Speaker *Daniel Alessi – The University of Texas at Austin*
10:00-10:30	Oral Presentations
10:00-10:15	*Kristina Butler – The University of Texas at Dallas*
10:15-10:30	*Rona Donahoe – University of Alabama*
10:30-10:45	Break
10:45-12:00	Oral Presentations
10:45-11:00	*Jorge Crespo – Nevada Bureau of Mines and Geology*
11:00-11:15	*Toti Larson – The University of Texas at Austin*
11:15-11:30	*Stefanie Brueckner – Laurentian University*
11:30-11:45	*Jeffrey Catalano – Washington University in St. Louis*
11:45-12:00	*Margaret Goldman – United States Geological Survey*
12:00-13:30	Lunch and Posters (Sessions 1A & 1B) *TCC 3.102*
CRITICAL MINERALS WORKFORCE DEVELOPMENT How to grow the US critical minerals workforce	
13:30-14:00	Keynote Speaker *Leah Turner – CUAHSI*
14:00-14:30	Keynote Speaker *Robert Bodnar – Virginia Tech*
14:30-15:30	Oral Presentations
14:30-14:45	*Joe Biasi – University of Wyoming*
14:45-15:00	*Tetteh & Motlagh – Freeport McMoRan Inc./New Mexico Tech*
15:00-15:15	*James Kubicki – UTEP*
15:15-15:30	*Clémentine Hamelin – William & Mary*
15:30-15:45	Break
15:45-16:30	Panel discussion: Critical Minerals R&D in the light of recent Executive Orders

16:30-18:30	Happy Hour and Posters *TCC 3.102*
19:00-21:00	Workshop Dinner (reservation only) *Texas Science and Natural History Museum at The University of Texas at Austin*

THURSDAY, AUGUST 14, 2025

TOWARDS A CIRCULAR ECONOMY
Innovations in critical mineral extraction and recycling

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

POLICY AND SUPPLY CHAIN ECONOMICS
Reshoring critical mineral production

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

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

μ-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

Supporting Critical Minerals Workforce Development in Undergraduate Courses in Mineralogy and Igneous and Metamorphic Petrology
Katherine McCarville, Minot State University

Breaking the Rock Wall: Equity-Driven Reform in Field-Based Geoscience Education
Melissa Ortega, The University of Texas at El Paso

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 Periwal, Bureau of Economic Geology

Critical minerals mapping across the United States under the USGS Earth Mapping Resources Initiative (Earth MRI)

Jamey Jones, United States Geological Survey

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