

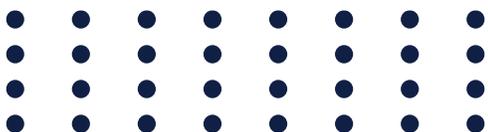
The Battery Research, Innovation, and next-Gen  
Energy Harvesting Technologies Institute

# CRITICAL MATERIALS SYMPOSIUM

March 6, 2025 | Thursday | 9:00 AM



**BRIGHT INSTITUTE**  
UNC GREENSBORO



The **Battery Research, Innovation, and next-Gen Energy Harvesting Technologies (BRIGHT)** Institute Presents:  
**Critical Materials Symposium**

*UNC Greensboro | Elliott University Center (EUC) | 507 Stirling St.  
Morning Session at the EUC Alexander Room*

9:00 AM **Check-In and Continental Breakfast**

9:45 AM **Introductory Remarks**  
Hemali Rathnayake, *Professor*  
Sherine Obare, *Vice Chancellor for Research and Engagement*

9:55 AM **Provost's Welcome**

**Session I: Research and Innovation in Critical Materials Supply Chain**  
**Moderator: Hemali Rathnayake**

10:00 AM *Keynote Address*  
**The Right Time, The Right Place, The Right Approach:  
Toyota in the Battery Value Chain**  
Evan Leon, *Toyota Tsusho America, Inc.*

10:30 AM **Unlocking Critical Mineral Resources from Unconventional Feedstocks**  
Wencai Zhang, *Virginia Tech University*

10:50 AM **Coffee and Networking Break**

11:10 AM **Critical Materials Recovery from Industrial Processes**  
Matthew Craps, *Savannah River National Laboratory*

11:30 AM **Panel Discussion on Critical Materials Supply Chain Challenges**  
Evan Leon, *Toyota Tsusho America, Inc.*  
Wencai Zhang, *Virginia Tech University*  
Sheeba Dawood, *Minerva Lithium*  
Matthew Craps, *Savannah River National Laboratory*  
Alla Letfullina, *Reynolds American, Inc.*  
Moderator: Hemali Rathnayake, *Director of BRIGHT*

12:30 PM **Networking Lunch**

1:45 PM *Transition to Nursing Instructional Building*

The **Battery** Research, **Innovation**, and next-Gen Energy  
**Harvesting Technologies (BRIGHT)** Institute Presents:  
**Critical Materials Symposium**

*UNC Greensboro | Nursing Instructional Building | 1007 Walker Ave.  
Afternoon Session (2:00 PM - 5:30 PM EDT)*

### **Session II: Research and Innovation in Batteries and Microelectronics**

**Moderator:** John Borchert

- 2:00 PM *Keynote Address*  
**Performance Improvement of Li Metal Batteries through Rational Materials and Operation Design**  
Bin Li, *Oak Ridge National Laboratory*
- 2:30 PM **Bioinspired Approaches for Redox-Active Materials in Energy Storage**  
Shabnam Hematian, *UNC Greensboro*
- 2:50 PM **Eco-Friendly Processing for Next-Generation Battery Materials**  
Lin Ma, *BATT CAVE at UNC Charlotte*
- 3:10 PM **Inside Battery Gigafactory Manufacturing: Process & Technology**  
Muthukumaran Sivaraman, *Battery Gigafactory Manufacturing*

### **Session III: Future Workforce Development Trends**

**Moderator:** Joe Rotondi

- 3:30 PM **Panel Discussion on Workforce Development Needs**  
Jesse Jur, *NC Department Of Commerce*  
Kate Bashford, *Appalachian Energy Center*  
Tiffany Jacobs, *Forge Greensboro*  
Fred C. Henry Jr., *GuilfordWorks*  
Moderator: Joe Rotondi, *Minerva Lithium*
- 4:15 PM **Poster Presentations**
- 5:30 PM **Adjourn**

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# Acknowledgements

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