



Reactive Metals, Energetics, and High-Enthalpy Flows (REACH) Research Experience for Undergraduates (REU)

Virginia Tech · Blacksburg, VA · May 22 - July 28, 2023 · reach.eng.vt.edu

Summer research for undergraduates in energetic materials. The Virginia Tech REACH REU Summer Program provides research opportunities for a cohort of eight undergraduates during a 10-week summer research program. The REACH REU program will fully immerse students in the field of metallized energetics and learn how the latest research in this area can be used to generate compounds that: (i) fly further, faster, and longer; (ii) have precise energy release rates and controlled effects; and (iii) are safer to synthesize, store, handle, and employ. For more information, visit reach.eng.vt.edu

> PROGRAM OVERVIEW

- Teamed science with REU students & their faculty advisors
- Orientation week & team building
- Professional development workshops and technical skills training
- Capstone talk and networking at a DoD Energetics Meeting
- \$6,000 stipend, \$700 travel expenses
- Dormitory housing, all meals and activities furnished by the REU

> SAMPLE PROJECTS

- Design of polymer-metal energetics
- Mechanochemical alloying of metals
- High-speed propulsion and rocketry
- Multiphase detonation & explosives
- Flow visualization and diagnostics
- Computational modeling & simulation
- Machine learning/computer vision for energetic characterization

Contact the REACH REU Co-Directors:
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HOW TO APPLY

- Submit the REU application at www.reach.eng.vt.edu/
- Applicants must submit:
 - REACH application
 - Cover letter (2-pg. max)
 - Resume
 - College Transcripts
 - Two letters of recommendation
- Applicants from colleges and universities with limited research opportunities, groups underrepresented in STEM, and veterans are strongly encouraged to apply.
- All applications must be received by **5 pm ET on February 24, 2023.**
- Selections made by the **last week of March.**
- Summer 2023 program pending funding decision from NSF.

