

CONGRATULATIONS!



CELEBRATING SUCCESS

Department of Materials Science and Engineering

New Grants Awarded

Nikhil Shukla, Associate Professor

- University of Notre Dame DU LAC/U.S. National Science Foundation, “EFRI BEGIN OI: Implantation of Dense Associative Memory through Cardiac Muscle Cell-Based Reprogrammable Bio-Oscillatory Neural Networks.”

Rob Kelly, AT&T Chaired Professor, Associate Chair for Operations, and Co-Director of the Center for Electrochemical Science and Engineering

- BlueForge Alliance/U.S. DOD – Navy – Other, “Microstructure, Processing, and Corrosion Performance of LPBF CuNi.”

Keynote Lectures and New Papers Published

Baiqiang Huang, Graduate Research Student; Shifeng Nian, MSE PhD alumnus and former Postdoctoral Research Associate; and Liheng Cai, Assistant Professor

- [“A universal strategy for decoupling stiffness and extensibility of polymer networks,”](#) Science Advances, 10, 48, (November 2024). [Featured on the front cover of Science Advances.](#)

Deb Sur, Graduate Research Student and John Scully, Charles Henderson Chaired Professor, Co-Director of the Center for Electrochemical Science and Engineering

- Deb Sur, et al., [“Bayesian assessment of commonly used equivalent circuit models for corrosion analysis in electrochemical impedance spectroscopy,”](#) npj Materials Degradation, 8, 120, (November 2024).

Diane Dickie, Senior Scientist

- Diane Dickie, et al., [“Salts of 2-amino-5-iodo-pyridinium,”](#) Crystallographic Communications, 80, 11, (November 2024).

Diane Dickie, Senior Scientist

- Diane Dickie, et al., [“Chloride bridged Cu\(II\) chains with n-Br-2-pyridone molecules,”](#) Coordination Chemistry, 1-12, (November 2024).

Diane Dickie, Senior Scientist

- Diane Dickie, et al., [“Alternating Cu\(II\) chains with bridging pyrazine, oxy- and halo-ligands,”](#) Coordination Chemistry, 1-12, (November 2024).

L.S. Bowling, Graduate Research Student; A.T. Wang, MSE BS alumnus; W.T. Riffe, Graduate Research Student; J.M. Skelton, MSE PhD alumnus and Postdoctoral Research Associate; P.E. Hopkins, Whitney Stone Professor of Engineering; J.M. Fitz-Gerald, Professor; S.R. Agnew, William G. Reynolds Professor of Materials Science

- Lauren Bowling, et al., [“Thermophysical modeling of niobium alloys informs materials selection and design for high-temperature applications,”](#) Materials & Design, 248, 113456, (December 2024).

Recognition and News

BS MSE Program

- The Department of Materials Science and Engineering received word from ABET that changes to our *Assessment* and *Continuous Improvement* approaches were approved. As such, our BS MSE program is now formally ABET accredited. Many thanks to Jerry Floro for shepherding us through this long process, to Jim Fitzgerald, who helped in every facet, including the development of the Capstone course, to the MSE faculty for their willing cooperation, and to Claire Culver for her support.

Sherri Sullivan, Senior Finance Generalist

- Sherri is the recipient of the 2024 [Leonard W. Sandridge Outstanding Contributor Award](#) for service and contributions far exceeding the overall mission and values of the University. Sherri has consistently demonstrated exceptional performance, dedication, and commitment over the course of her career in the Department of Materials Science and Engineering, School of Engineering and Applied Science, and the University. This prestigious award highlights her hard work and values that align with the department's mission and her position as a role model for the University community. Sherri will receive a monetary award, an engraved gift, and an invitation to the Board of Visitors luncheon in December. Congratulations, Sherri!



Beth Opila, Department Chair and Rolls Royce Commonwealth Professor of Engineering

- [New Coatings to Boost Turbine Engine Efficiency](#) by The UVA Office of Communications, School of Engineering and Applied Science
[Opportunities for novel refractory alloy thermal/environmental barrier coatings using multicomponent rare earth oxides](#)

John Scully, Charles Henderson Chaired Professor, Co-Director of the Center for Electrochemical Science and Engineering

- The National Academies of Sciences, Engineering, and Medicine appreciation to John Scully for his failure analysis of the Arecibo Observatory 305-Meter Telescope Collapse.

NATIONAL ACADEMIES Sciences
Engineering
Medicine

November 12, 2024

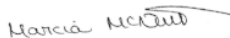
Dr. John R. Scully
Professor and Co-Director
Center for Electrochemical Science and Engineering
University of Virginia
Room 112
395 McCormick Rd,
Charlottesville, VA 22904-4745

Dear Dr. Scully:

On behalf of the National Academies of Sciences, Engineering, and Medicine, I want to express our deep appreciation for your service as a member of the Analysis of Cause (s) Failure and Collapse of the 305-Meter Telescope at the Arecibo Observatory of the Board on Infrastructure and the Constructed Environment, Division on Engineering and Physical Sciences, and your participation in all phases of its work.

The members of the division committee, the board, and I are aware of the personal effort which you devoted to the report titled *Analysis of Cause (s) Failure and Collapse of the 305-Meter Telescope at the Arecibo Observatory*. Please accept our thanks for the time and specialized knowledge that you have contributed to the National Academies of Sciences, Engineering, and Medicine and the nation for a job well done.

Sincerely,



Marcia McNutt
President, National Academy of Sciences
Chair, National Research Council

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Liheng Cai, Assistant Professor

- [In Major Materials Breakthrough, UVa Team Solves a Nearly 200-Year-Old Challenge in Polymers](#) by Jennifer McManamay.

Petra Reinke, Professor

- Invited to join the Advisory Board of the Vinnova Competence Centre Sentio - Integrated Sensors and Adaptive Technology for Sustainable Products and Manufacturing (Sentio.lu.se). This is a [competence center at Lund University](#) that focuses on “smart processing” in a university-industry collaboration.”

Diane Dickie, Senior Scientist

- Appointed to a three-year term on the [Project Review Panel](#) for the “Bulk and Surface Diffraction” division of the Deutsches Elektronen-Synchrotron (DESY) in Hamburg, Germany. In this role, Diane will evaluate proposals seeking time on the P24 beamline of the synchrotron.

Chaobo Chen, Graduate Research Student

- Successfully defended PhD, “Multiscale Modeling of Short-pulsed Laser Ablation of Metal Targets.”

Shuai Li, Graduate Research Student

- Successfully defended PhD, “Metallic Thermoelectric Materials for Active Cooling Application.”

The Materials Advantage (MA) Executive Board members: Lara Ojha, Alice Pandaleon, Astrid Kaczmarzewski, and Joey Giordano

- Gave a lecture about the field of Materials Science and Engineering to Charlottesville High School (CHS) students on Thursday, November 14th. Students were very interested in the field and engaged in the demonstrations and activities given by MA. Questions were asked about what MSE looks like as an undergraduate student at UVA. The CHS teacher, Mr. Manning, expressed interest in having MA return to give another MSE talk to other classes, as well as in future semesters. He expressed how useful it was to introduce high school students to MSE as a degree option before attending college. MA plans to continue outreach activities with CHS and maintain a connection for future outreach the department may be interested in doing.

