UW MOLECULAR ENGINEERING MATERIALS CENTER

An NSF MRSEC

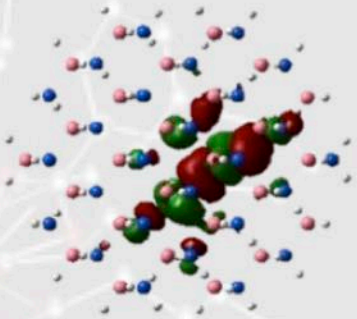
University of Washington, Seattle

DESIGNING, DEVELOPING, AND DEPLOYING NEW COMPLEX NANOMATERIALS that accelerate future technologies in broad sectors including information processing, sensing, energy, and research tools.

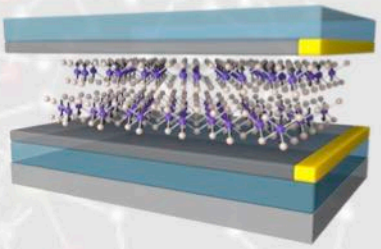
PREPARING TOMORROW'S TECHNOLOGY INNOVATORS AND SCIENTIFIC LEADERS through an integrated interdisciplinary research/education program bolstered by active industry, national laboratory, and international partnerships.

The **UW Molecular Engineering Materials Center** coordinates research efforts among two colleges and five departments across UW's campus and Pacific Northwest National Laboratory to address major trans-disciplinary challenges in materials research.

MEM-C's Interdisciplinary Research Groups (IRGs)



IRG-1: Defects in Nanostructures is engineering unprecedented physical properties into inorganic nanostructures by controlling defect formation and doping, and will exploit emergent properties to forge new technological frontiers ranging from laser cooling to solar concentration.



IRG-2: Layered Quantum Materials is creating and studying new forms of quantum matter in atomically layered materials and controlling novel topological and excitonic phase transitions within these materials, with potentially disruptive impact on energy and information technologies.

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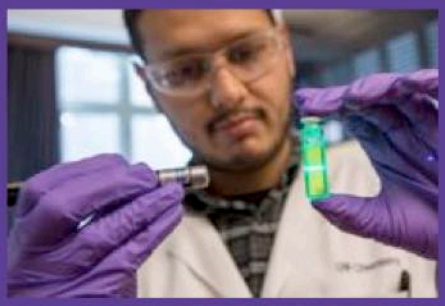
UNIVERSITY OF WASHINGTON 1861


Education and Outreach

MEM-C's innovative education and outreach activities aim to inspire broader interest in science and engineering within our community and to engage a diverse and talented participant pool in our research activities. Signature MEM-C programs seek to facilitate STEM career opportunities for veterans, women, and underrepresented minorities. Activities also include REU and RET programs, K-20 outreach, and partnership with regional community colleges.

Research and Training Partnerships

MEM-C offers a framework for initiating and advancing collaborative materials research and development with industrial partners, and for translating the center's research innovations into commercial opportunities.

MEM-C promotes research collaborations and trainee exchange with partner laboratories abroad and at U.S. National Laboratories to advance the center's research goals and broaden the scientific and cultural experience base of its participants.

MEM-C is supported by NSF grant DMR-1719797

UW MEM·C

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