



Education

LFMSRs are helpful in this area, too. Important medical radioisotopes—including molybdenum-99 and bismuth-213—are formed in the nuclear reactions that take place inside LFMSRs.

Considering all the benefits of LFMSRs, it is clear why the NEXT Lab's MSRR plans are generating so much excitement among nuclear researchers. Towell shared his perspective on what will make his lab's MSRR so special:

Unlike most of the current fleet of research reactors around the country, the MSRR will be very different. The current fleet of research reactors are primarily used as a teaching tool or a source of neutrons for irradiation studies. The MSRR is a research project in many ways. It will specifically address many critical questions that must be answered if molten salt reactors are to be deployed around the world as a

source of clean, safe, affordable, and reliable energy. These questions include: Can the NRC license a molten salt reactor? How does the salt chemistry evolve over the life of the reactor? Which fission fragments stay in the salt? Which fragments plate out on metal surfaces? Can corrosion be minimized? If so, how?

Meeting global needs

The NEXT Lab's MSRR will be the first new research reactor in the United States in decades, as well as the only molten salt reactor currently used in research. And it couldn't be timelier: In addition to training and cutting-edge nuclear studies, people around the world need reliable energy resources, clean water, and radioisotopes for health care more than ever before—not to mention more trained nuclear professionals. The MSRR is bound to do its part in helping us meet these global needs. ☒



Nuclear, Plasma & Radiological Engineering

THE GRAINGER COLLEGE OF ENGINEERING

Open Rank Faculty Search Department of Nuclear, Plasma, and Radiological Engineering, The Grainger College of Engineering University of Illinois Urbana-Champaign

The Department of Nuclear, Plasma, and Radiological Engineering at the University of Illinois Urbana-Champaign invites applications for multiple full-time tenure-track faculty positions. Qualified candidates at all ranks will be considered, but those at the Assistant Professor level are especially encouraged to apply. Primary target areas of interest are nuclear power, nuclear materials, and radiological applications. In addition to these areas, exceptional applicants in all areas relevant to the department will be considered. More information regarding our department can be found at <https://npri.illinois.edu/>, and the complete position announcement and application instructions can be found at <https://jobs.illinois.edu>. Full consideration will be given to applications received by **December 1, 2022**. Early applications are strongly encouraged as applications will be evaluated as received.

We have an active and successful dual-career partner placement program and a strong commitment to work-life balance, and family-friendly programs for faculty and staff (<https://provost.illinois.edu/faculty-affairs/work-life-balance/>).

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Applicants with disabilities are encouraged to apply and may request a reasonable accommodation under the Americans with Disabilities Act (2008) to complete the application and/or interview process. Requests may be submitted through the reasonable accommodations portal, or by contacting the Accessibility & Accommodations Division of the Office for Access and Equity at 217-333-0885, or by emailing accessibility@illinois.edu.