



Profile

Dr. Richard Mu is a research professor. He currently serves as the Associate Director at TIGER Institute of Tennessee State University and is the Director (PI) of NSF funded TSU-Fisk-Illinois (TSUFI) Partnership in Research and Education of Materials (PREM) program. He is also a Research Theme Leader of Advanced Materials Research Program at TIGER of TSU.

The general scope of Dr. Mu and his research team have been focused on the fabrication, production, and characterization of low-dimensional hard and soft multifunctional and quantum materials consisted of nanoparticles, quantum dots, nanofibers and nanolayered structure through structure-by-design and function-by-design approaches to a) seek the fundamental understanding of how energy and information is being stored, converted, transferred, transported; b)

explore new and innovative ways to tailor, manipulate, and perhaps control energy relaxation processes and their transfer pathways through materials design; c) develop effective techniques to interrogate nanostructured materials and integrate nanomaterials into the much needed devices and sensors; d) cultivate micro- and nano-fluidic technology for electrical and spectral sensing in biochemical and biomedical applications; and e) advance the current physical, chemical and electrohydrodynamic deposition technology for the applications ranging from quantum information, energy to biomedical sciences and engineering.

Dr. Mu authored and co-authored over 250 referred journal publications in materials research areas and has been funded broadly by NSF, NIH, DOD, DOE, NASA agencies and private resources.

Currently, Dr. Mu serves on 5 active funded PIs (Main and/or TSU site) with over \$5M. The largest award is \$4.2M from NSF in Aug 2024.

He directs two research laboratories at TIGER Institute. One is materials fabrication lab named: Quantum and Multifunctional Materials Lab (Q-M²atLab) and another is comprehensive optical lab named as Photonics and Quantum Information Lab (PhotonicsQ).

Education

- Ph.D., Southern Illinois University at Carbondale, Carbondale, IL (1992)
- M.S., Southern Illinois University at Carbondale, Carbondale, IL (1987)
- B.S., Northeast Normal University, Changchun, China (1982)

