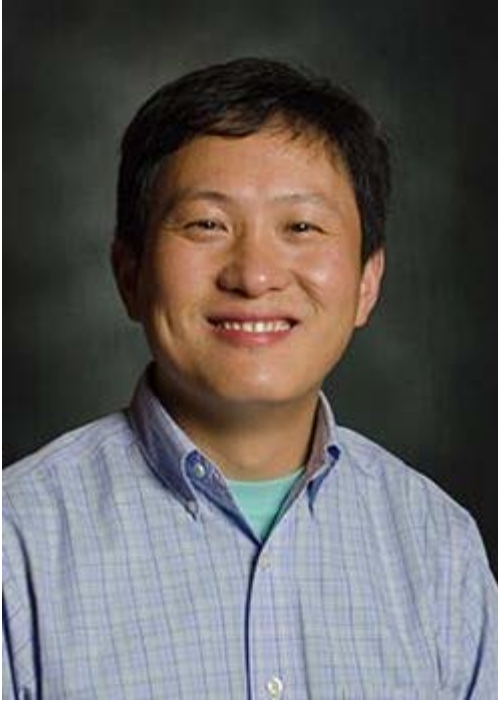


## AU researcher studying fundamentals of making transparent ceramics

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Yiquan Wu, assistant professor of materials science at the Inamori School of Engineering at Alfred University, has received a three-year grant for more than \$500,000 from the Office of Naval Research to support a fundamental study on consolidation mechanisms to develop new infrared transparent ceramics with a number of optical and photonic applications.

Wu will work with two graduate assistants and two undergraduate assistants on the studying and processing of sulfide-based long-wave infrared ceramic nanocomposites that will be transparent and therefore can be used for windows and domes for high-speed national defense systems. He anticipates the work will lead to high-performance three-dimensional optical ceramic components with the requisite optical and mechanical properties.

This is the second major research grant Wu has received this year. Earlier he received \$518,000 from the Air Force Office of Scientific Research to study a new approach to process crystals for high-power lasers. The high-power lasers would have potential applications for in fields such as laser-assisted manufacture industry, national defense, and laser-based inertial confinement fusion systems.

Wu joined the Alfred University faculty in 2011 as an assistant professor of materials science; he had previously held appointments as a research assistant professor at the University of Rochester and as a research associate at Duke University. He received his Ph.D. degree in materials from the Imperial College London in 2005. His research interests include optical ceramic materials, bioactive materials, and nanostructured materials for energy applications. Wu received a prestigious Young Investigator Award from the Air Force Office of Scientific Research in 2010.