Donald and Marianna Matteson Distinguished Professorship in Chemistry



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JAMES A. BROZIK

Professor Department of Chemistry and Program in Materials Science and Engineering

James Brozik (PhD '96, chemistry) is an internationally recognized physical chemist, molecular spectroscopist, and biophysicist with expertise in laser spectroscopy, single molecule fluorescent imaging in the time domain, theoretical modeling, instrument development, and chemical synthesis. He has worked in the fields of single molecule biophysics and single molecule materials science for 20 years and has authored numerous publications from his research and experiments.

Brozik's strong record of external research support includes funding from the Air Force Office of Scientific Research to build state-of-the-art quantum standards for stochastic biophysics, and the Keck Foundation to develop proto-replicators and self-replicating molecular machines. The WSU spin-off company Brozik cofounded, Photon Biosciences, produces ultra-stable bio-nanoparticles and instrumentation for important applications in health care.

Brozik teaches graduate and undergraduate courses in physical chemistry, biophysical chemistry, molecular spectroscopy, and stochastic chemical processes, and he is deeply committed to seeking out, recognizing, and cultivating talent in aspiring scientists at all levels. He regularly involves students in his research and has mentored 23 graduate students and more than 50 undergraduates.

Through his ongoing international research collaborations, he has developed opportunities for WSU graduate and undergraduate students to travel abroad to learn from leading chemists and biophysicists at universities in the U.K. and Italy.

