


Personal Information

Full name	James A. Fedchak	
Current position	Physicist	
Organization	National Institute of Standards and Technology (NIST)	
Country	USA	

Short Biography

Jim Fedchak has been a researcher at NIST since 2003 and has been with the NIST Vacuum Project since 2007, which includes the realization and dissemination of absolute pressures from 10^{-7} Pa to 30 Pa, and low gas flow from 10^{-12} mols/s to 10^{-6} mols/s. He is involved with various research activities, including creating a new cold-atom vacuum standard. His knowledge of vacuum science and technology covers a wide variety of applications drawn from his broad experience in research, metrology, and engineering. This includes cryogenic infrared radiometry at NIST, developing and testing photonic devices in private industry, atomic and synchrotron-based UV spectroscopy at the University of Wisconsin, and developing spin-polarized targets for medium-energy physics experiments at Argonne National Laboratory. He has a PhD in experimental atomic and molecular physics from the College of William and Mary in Virginia, where he studied collisions of negative ions with neutral atoms and molecules. He participates in the Consultative Committee for Mass and Related Quantities Working Group on Pressure and Vacuum, and is presently a member of the AVS Vacuum Technology Division Executive Committee.