

## Brief Biography

### Education & Professional Experience:

Albert Davydov received the Ph.D. in Chemistry from Moscow State University (Russia) in 1989. He was an Assistant Professor of Chemistry at Moscow State University (1987-1993), an Invited Researcher at the University of Sheffield, UK (1992-1993), an Assistant Research Scientist at the University of Florida (1993-1997), and a NIST Research Associate at the University of Maryland (1997-2005).

He joined NIST fulltime in 2005 and is now active in the area of semiconductor nanowires/thin-film materials and devices. He is presently a Leader of Functional Nanostructured Materials Group, and Project Leader on “Low-dimensional semiconductors for sensors, optoelectronics and energy applications” at the Materials Science & Engineering Division, Material Measurement Laboratory (MML/NIST).

Dr. Davydov has more than 25 years experience with materials analysis, bulk crystal growth, thin film deposition, and the fabrication, characterization, and processing of a wide range of nanostructured electronic and optical materials. He has published over 100 publications in peer-reviewed journals with the h-index of 27.

### Professional Service and Activities:

- Head of the Semiconductor Task Group for the International Centre for Diffraction Data
- Co-chair of the Reference Materials Task Group, ASTM Subcommittee F1.15 on Compound Semiconductors
- Leader of the review team for the NSF-NRI program on “Nanoelectronics for 2020 and Beyond”
- Associate Editor of the Journal of Mining and Metallurgy

Dr. Davydov served on Organizing Committees for the International Conferences/Symposia/Sessions related to semiconductor materials, including CALPHAD (1997), ACCG (2009), IWN (2010), ISDRS (2011 & 2013), WOFE (2011, 2013, 2015), SPIE (2010-2015), IEEE Nano (2012-2014), ICNS (2013) and ICON (2013 and 2016). He served as a reviewer for NSF, DTRA and CRDF (USA), NSERC (Canada), ASF (Austria), Rusnano (Russia) and MIT/SkTech (USA/Russia).

### Honors/Awards:

- 2015: Best poster award at the MRS-Spring meeting on “Optical and Structural Nano-Characterization of Ordered Core-Shell GaN Micropillars” (NIST/University of Madgeburg team)
- 2012: Invention of the Year on “Nanoengineered Chemical Sensors for Environmental Pollutants” (Award by University of Maryland to the Univ. of Maryland/NIST team)
- 2006: “One of the 25 Most Innovative Products: GaN Nanowire Nanolights” (Award by R&D Magazine and Micro/Nano Newsletter (to NIST team))
- 2003: Award of International Centre for Diffraction Data (ICDD)