

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 Project Leader on “Semiconductor nanowires for sensorics, opto/electronics and energy applications” at the Metallurgy Division, Material Metrology Laboratory (MML/NIST).

Dr. Davydov has more than 20 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 over 70 publications in peer-reviewed journals.

Professional Service and Activities:

Dr. Davydov serves as the Head of the Semiconductor Task Group for the International Centre for Diffraction Data; he is an Associate Editor of the Journal of Mining and Metallurgy.

During the past 10 years, Dr. Davydov served on several Organizational Committees for the International Conferences/Symposia/Sessions related to semiconductor materials, including CALPHAD (1997), ACCG (2009), IWN (2010), ISDRS (2011), SPIE (2010, 2011 & 2012), WOFE (2011 & 2013), IEEE Nano (2012).

He served as a reviewer, both ‘on-panel’ and ‘by correspondence’, for NSF (USA), CRDF (USA), NSERC (Canada), ASF (Austria), MIT/Skolovo Tech (US-Russia), and Rusnano (Russia).

Honors/Awards:

- Invention of the Year for the “Nano-engineered Sensors for Environmental Pollutants, Hydrogen, and other Industrial Chemicals” (2011)
(Office of Technology Commercialization, Univ. of Maryland; to NIST and UMD teams)
- “One of the 25 Most Innovative Products: GaN Nanowire Nanolights” (2006)
(Award by R&D Magazine and Micro/Nano Newsletter; to NIST team)
- Award of International Centre for Diffraction Data (ICDD) (2003)
- Best Paper Award on ‘Phase Diagram Assessment’ from APDIC (2001)