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Parsons is the Alcoa Professor of Chemical and Biomolecular Engineering at North Carolina State University. He received a PhD in physics from NC State University in 1990 and completed post-doctoral work at IBM TJ Watson Research Center in the area of thin-film transistor materials for flat panel displays. In 1991, he earned an IBM Invention Achievement Award for his work in "Pulsed Gas Plasma Enhanced Deposition of Silicon." He joined NC State Chemical Engineering as an assistant professor in 1992 and became Alcoa Professor in 2009. Since 2006, he has directed NC State's Nanotechnology Initiative. Parsons' research focuses on surface chemistry and chemical processing of thin-film materials by atomic and molecular layer deposition, including investigations of nanoscale surface chemistry on polymers and fibrous media, and applications in renewable energy generation and storage. Parsons was elected Fellow of the American Vacuum Society in 2005, and in 2009 he was named to NC State's Academy of Outstanding Teachers.

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George is a professor in the departments of Chemistry and Biochemistry and Chemical and Biological Engineering at the University of Colorado at Boulder. His research interests are in surface chemistry, thin-film growth, and nanostructure engineering. He is currently directing research focusing on ALD and MLD. This research is examining new surface chemistry, measuring thin-film growth rates, characterizing the properties of films, and developing new applications for ALD and MLD. George is a Fellow of the AVS and APS. He received his BS in chemistry from Yale University and his PhD in chemistry from the University of California at Berkeley. He is also a co-founder of ALD NanoSolutions, which is working to commercialize ALD technology.

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Knez studied electrical engineering at the University of Applied Sciences in Augsburg and subsequently chemistry at the University of Ulm. After his diploma thesis in organic chemistry, he moved to the Max-Planck-Institute of Solid State Research in Stuttgart to perform his doctoral thesis work in physical chemistry, which was completed in 2003. During his time as a Postdoc at the Max-Planck-Institute of Microstructure Physics in Halle, he investigated the application potential of ALD in materials science. In 2006, he received the Nanofutur award and a grant from the German ministry of education and research (BMBF) to form a research group for five years. In 2009, he was a visiting professor at the University of Brescia (Italy), and in January 2012, he will work as Ikerbasque Research Professor at the CIC NanoGUNE Consolider in San Sebastian (Spain). He has organized symposia for MRS meetings and will co-chair the international AVS conference on ALD in June 2012 in Dresden.

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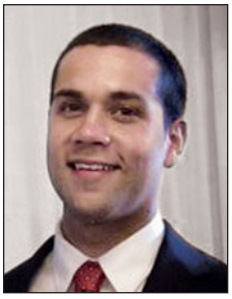
Bae is currently an Alexander von Humboldt postdoctoral fellow at the University of Hamburg. He received his BSs degree (2002), his MSc degree (2005), and his PhD degree (2008) in materials science and engineering from the Kookmin University, Seoul, Korea. He is a Gold Medal Winner for the Humantech Thesis Prize of Samsung Electronics (2007). His research interests include the fabrication and studies of nanostructured materials and devices by atomic layer deposition, with a focus on applications from photovoltaic cells, batteries, fuel cells, and catalysts to spintronics.



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Dasgupta earned his PhD degree in mechanical engineering and his PhD minor in materials science and engineering from Stanford University in June 2011. His academic interests include renewable energy, nanoscale fabrication of solar cells and fuel cells, atomic layer deposition, energy policy, and economics. He received the Student Award for Best Presentation of Graduate Research in ALD at the AVS 11th International Conference on ALD in 2011, and has been awarded a U.S. Department of Energy Office of EERE postdoctoral fellowship to be performed at the University of California at Berkeley.

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Elam is a principal chemist and group leader at Argonne National Laboratory, where he directs a program in atomic layer deposition (ALD) technology with the goal of developing new applications for ALD in energy-related fields such as photovoltaics, catalysis, and batteries. Elam earned his BA in chemistry from Cornell University and his PhD in physical chemistry from the University of Chicago. As a postdoctoral researcher at the University of Colorado, he developed ALD thin-film growth methods. Elam has authored over 130 papers and is an inventor on over 25 patents and inventions related to ALD. He chaired the *ALD Applications VI* session at the 218th ECS Meeting in 2010, and he chaired the *AVS Topical Conference in Atomic Layer Deposition - ALD2009* the previous year.

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Kessels is a professor in the Department of Applied Physics of the Eindhoven University of Technology. He received his PhD degree from the same university in 2000, and as a PhD student and postdoctoral researcher, he worked at UC Santa Barbara, Colorado State University, and Philipps University Marburg. His research focuses on the synthesis of ultrathin films and nanostructures for nanoelectronics and photovoltaics using methods such as (plasma-enhanced) chemical vapor deposition and atomic layer deposition. Erwin is the recipient of the Peter Mark Award of the AVS Science and Technology, and in 2010, he was awarded a NWO Vici grant to set up a research program on nanomanufacturing.

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Leskelä is a professor of inorganic chemistry at the University of Helsinki. He received his MSc degree in 1974 and his PhD degree in 1980 from Helsinki University of Technology, both in inorganic chemistry. His research activities include thin films and other nanostructured materials made by various chemical methods (atomic layer deposition, electrodeposition, and successive ionic layer adsorption and reaction) for various applications in micro- and optoelectronics. He has published over 500 peer-reviewed papers, 50 reviews, over 60 conference proceedings papers, and holds several patents.

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Nielsch is professor of experimental physics at the Institute of Applied Physics of the University Hamburg, Germany and coordinator of the German Priority Program of Thermoelectric Nanostructures, funded by the German Science Foundation (DFG). Nielsch studied physics at the Mercator University in Duisburg and conducted his diploma work at the University of Lund, Sweden. His doctoral thesis was carried out at the Max-Planck-Institute of Microstructure Physics in Halle, Germany. He has co-authored more than 95 refereed journal publications and three patents and has given approximately 120 invited presentations.

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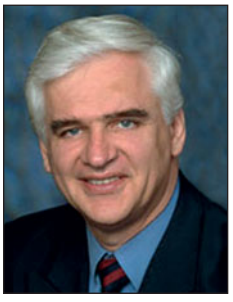
Nilsen is currently an associate professor at the University of Oslo (UiO), where he also obtained his Dr. Scient. degree in 2003. His research interests are within thin-film deposition by the atomic layer deposition technique and also effects related to crystal growth. He has published more than 50 papers on these topics, submitted eight patent applications, and started one spin-off company, Baldur Coatings AS, based on these results. He is also active in popularization of science and was co-awarded the UiO's prize for popularization in 2011.



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Prinz serves on the faculties of Mechanical Engineering and Materials Science and Engineering at Stanford University. He also holds the Finmeccanica Professorship in the School of Engineering. He obtained his PhD in physics at the University of Vienna, Austria. Prinz's current work focuses on scaling effects and quantum confinement phenomena for energy conversion. His graduate students study mass transport phenomena across thin membranes such as oxide films and lipid bi-layers. In their research, the Prinz group employs scanning probe microscopy, impedance spectroscopy, and quantum modeling. In his laboratory, prototype fuel cells, solar cells, and batteries serve to test new concepts and novel material structures.

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Putkonen works as a senior scientist at Beneq Oy where he is involved in the process and technology development for novel commercial ALD applications. He earned his doctoral degree in inorganic chemistry in 2002 from the Helsinki University of Technology (Aalto University), where he currently acts as a temporary professor in the Laboratory of Inorganic Chemistry. Since 1997, he has been active in developing novel ALD precursors and processes for various materials. His research focuses on ALD materials chemistry from small-scale R&D experiments to industrial process scaling. He has published more than 50 peer-reviewed papers and he is an inventor in five patents and more than 10 patent applications.

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Ritala is a professor of inorganic materials chemistry at the University of Helsinki. He received his MSc degree in 1991 from the University of Turku and his PhD degree in 1994 from the University of Helsinki, both in inorganic chemistry. During 1995–2003, he worked at the University of Helsinki, first as a postdoctoral researcher and then as an academy research fellow, both posts granted by the Academy of Finland. In 2003, he was nominated as a professor of inorganic materials chemistry at the University of Helsinki. His main research activity is in atomic layer deposition (ALD) of thin films for microelectronics and other applications. He has published over 320 papers and holds several patents.

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Shin is an associate professor and head of the school of advanced materials engineering at Kookmin University, Seoul, Korea. He received his BS degree in ceramic engineering from Yonsei University (1991), and his MS and PhD degrees in materials science and engineering from Case Western Reserve University in 1994 and 1996, respectively. He spent one year at Max-Planck Institute fur Metallforschung as an Alexander von Humboldt Research Fellow. His research interests include functional nanoscale materials processing for renewable energy generation and storage applications, processing of ALD, ferroelectric nanostructures, transition metal oxide thin films for resistive memory, scanning probe microscope, and self-assembly.