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Sinnott is a professor of materials science and engineering and a University of Florida Research Foundation Professor. She received her BS degree in chemistry from the University of Texas, Austin, and her PhD degree in physical chemistry from Iowa State University. She was a postdoctoral associate at the Naval Research

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Baskes is an adjunct professor in the Department of Mechanical and Aerospace Engineering at the University of California, San Diego (UCSD) and a laboratory associate-fellow at Los Alamos National Laboratory (LANL). He obtained his BS degree in engineering in 1965 and his PhD degree in materials science in 1970, both from the California Institute of Technology. He was then employed at Sandia National

Laboratories, LANL, and UCSD. Baskes's interests encompass the use of computational methods to investigate material properties. His major scientific accomplishments have been the development of the embedded atom method; the development of models to predict the behavior of helium in metals; and the development of a model to explain hydrogen isotope recombination. He is a member of The Minerals, Metals and Materials Society (TMS), Sigma Xi, the Materials Research Society, and a fellow of LANL, TMS, and the Institute of Physics. Baskes has authored or co-authored more than 190 technical publications that have had more than 5900 citations. Of these publications, three have more than 1000 citations, and 18 have more than 100 citations each. He has received two Department of Energy (DOE) awards for outstanding research and is in the DOE/BES Hall of Fame.


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Haber-Institut in Berlin and at the Max-Planck-Institut für Metallforschung in Stuttgart, Germany. His research interests include the derivation and application of interatomic force models and the link between thermodynamic potentials and underlying atomic scale quantities, especially in the theory of defects and interfaces. In 2005, Finnis was the recipient of the Born Medal and Prize of the Institute of Physics and the German Physical Society.


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Moseler is a professor in the Physics Department of the University of Freiburg and is head of the work group "Multiscale Modeling and Tribosimulations" at the Fraunhofer Institute for Mechanics of Materials IWM. His work covers classical molecular dynamics simulations of friction, lubrication, and wear processes, phase

transformations in tribosystems, and nanoparticles, as well as multiscale models for thin-film growth. Further research activities are density functional calculations of finite size effects in free and supported clusters and their catalytic properties.



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#### Mark Noordhoek

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Noordhoek is a graduate student in materials science and engineering at the University of Florida. He earned his BSE degree in materials science and engineering from the University of Michigan in 2009. His research uses atomic simulation methods to study corrosion in nuclear fuel claddings.



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Pastewka is currently at Johns Hopkins University holding a Marie-Curie postdoctoral fellowship. He holds graduate degrees in physics and microsystems engineering from North Carolina State University and the University of Freiburg, respectively. He received his doctorate degree in theoretical condensed matter physics from

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#### Simon R. Phillpot

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#### Steve Plimpton

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Plimpton has been a member of the technical staff at Sandia National Laboratories since 1989. He earned his PhD degree in applied and engineering physics from Cornell University. Plimpton develops algorithms and software for materials modeling at various scales, including the LAMMPS molecular dynamic package discussed in his article in this issue of *MRS Bulletin*. He also works on more coarse-grained methods, including kinetic Monte Carlo techniques.



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Shin is a postdoctoral fellow working with Adri van Duin in the Department of Mechanical and Nuclear Engineering at The Pennsylvania State University. She received her PhD degree in 2011 in chemistry from The Ohio State University. Her current research focuses on development and applications of the ReaxFF force field to the study of oxidation reaction on complex nanoalloys and material properties.



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Thompson has been a member of the technical staff at Sandia National Laboratories for 14 years. He earned his PhD degree in chemical engineering from the University of Pennsylvania. Thompson develops and implements new algorithms, features, and interatomic potentials in LAMMPS. He also collaborates with other scientists, applying atomistic simulation meth-

ods to understand the effect of atomic-scale mechanisms on the behavior of condensed matter.

**Adri van Duin**

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van Duin is an associate professor in the Department of Mechanical and Nuclear Engineering at The Pennsylvania State University (PSU). He earned his PhD degree from the Delft University of Technology in 1997. From 1997 to 2002, he worked at the University of Newcastle in Tyne, UK, as a postdoctoral scientist on computational chemical simulations applied to organic geochemistry. In 2002, van Duin joined the

California Institute of Technology. He moved to PSU in the fall of 2008. Since 2000, he has worked on the development and application of the ReaxFF reactive force field, which enables large scale (>>1000 atoms) and long-time (>1 ns) atomistic-scale, dynamical simulations of chemical reactions. He has applied this technique to a wide range of materials and research topics, including catalysis, combustion chemistry, and material failure.

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