

MICHAEL NASTASI

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EDUCATION B.S. Materials Science and Engineering, 1981, Cornell University, Ithaca, NY
M.S. Materials Science and Engineering, 1983, Cornell University, Ithaca, NY
Ph.D. Materials Science and Engineering, 1986, Cornell University, Ithaca, NY

EXPERIENCE

2012 – Present Director, Nebraska Energy Sciences Research Center, University of Nebraska-Lincoln (UNL)
Elmer Koch Professor of Mechanical & Materials Engineering, UNL

2009 – 2011 Director, Department of Energy (DOE) Energy Frontier Research Center on *Materials at Irradiation and Mechanical Extremes*

2001– 2009 Nano Electronics and Mechanics Thrust Leader, *Center for Integrated Nanotechnologies (CINT)*, a DOE Nanoscale Science Research Center

2000 – 2012 Fellow, Los Alamos National Laboratory

1996 – 2011 Team Leader, Nano Science and Ion-Solid Interaction Team, Los Alamos National Laboratory

1993 – 2006 Adjunct Professor, Department of Chemical, Biological, and Materials Engineering, Arizona State University

1985 – 1996 Staff Member, Materials Science and Technology Division, Los Alamos National Laboratory

AWARDS AND RANKINGS

- h-index: 38 (including books)
- Fellow of Materials Research Society (MRS) (2011)
- Awarded one of the 46 *EFRC Awards* by the Department of Energy (DOE) (2009)
- Fellow of American Physical Society (APS) (2006)
- Los Alamos National Laboratory Fellow (LANL) (2000)
- Listed in the “Top 50 most published authors at LANL” in the last 10 years (1996-2005) based on peer-reviewed publications, citations and patents, with a rank of 4th based on peer-reviewed publications alone
- R&D 100 Award for Plasma Source Ion Implantation for Enhancing Materials Surfaces (1997)
- Los Alamos National Laboratory Fellows Prize for extensive research in ion-solid interactions (1995)
- The Department of the Navy Alan Berman Research Publication Award (1990)

PROFESSIONAL ORGANIZATIONS

- The American Association for the Advancement of Science (AAAS)
- American Physical Society (APS)
- The Minerals, Metals & Materials Society (TMS)
- The Minerals, Metals & Materials Society (TMS)
- The Bohmisch Physical Society: Executive Officer and Treasurer

RECENT PUBLICATIONS

1. Bai, X; Voter, A F; Hoagland, R G; Nastasi, M A; and Uberuaga, B P, EFFICIENT ANNEALING OF RADIATION DAMAGE NEAR GRAIN BOUNDARIES VIA INTERSTITIAL EMISSION, *Science*, 327, 1631 – 1634 (2010).
2. Li, N; Mara N A; Wang Y Q; Nastasi M; and Misra A, COMPRESSIVE FLOW BEHAVIOR OF CU THIN FILMS AND CU/NB MULTILAYERS CONTAINING NANOMETER-SCALE HELIUM BUBBLES, *Scripta Materialia*, 64, 974-977 (2011)
3. Wei, Q M; Wang, Y Q; Nastasi, Michael; and Misra, A NUCLEATION AND GROWTH OF BUBBLES IN HE ION IMPLANTED V/AG MULTILAYERS, *Philos. Mag.*, 91, 553 (2010).
4. Demkowicz, M J; Bhattacharyya, D; Usov, I; Misra, A; Wang, Y Q; and Nastasi, Michael, THE EFFECT OF EXCESS ATOMIC VOLUME ON HE BUBBLE FORMATION AT FCC-BCC INTERFACES, *Appl. Phys. Lett.*, 97, 161903 (2010).
5. Bringa, E. M; Monk, J. D; Caro, A; Misra, A; Zepeda-Ruiz, L; Duchaineau, M; Abraham, F; Nastasi, M; Picraux, S. T; Wang, Y. Q; and Farkas, D, ARE NANOPOROUS MATERIALS RADIATION RESISTANT?, *Nano Letters*, (2011).
6. Di, Z F; Bai, X M; Wei, Q M; Won, J; Hoagland, R G; Wang, Y Q; Misra, A; Uberuaga, B P; Nastasi, M, TUNABLE HELIUM BUBBLE SUPERLATTICE ORDERED BY SCREW DISLOCATION NETWORK, *Phys Rev. B*, 84, 52101 (2011)
7. Zhernenkov, M; Jablin, M S; Misra, A; Nastasi, M; Wang, Y Q; Demkowicz, M D; Majewski, J K, TRAPPING OF IMPLANTED HE AT CU/NB INTERFACES MEASURED BY NEUTRON REFLECTOMETRY *Appl. Phys. Lett.*, 98 241913 (2011)
8. Wei, Q M; Li, N; Mara, N; Nastasi, M; Misra, A, SUPPRESSION OF IRRADIATION HARDENING IN NANOSCALE V/AG MULTILAYERS, *Acta Mater*, 59 6331 (2011).

COLLABORATORS FROM OTHER INSTITUTIONS (PREVIOUS 48 MONTHS)

Abraham, F (LLNL); Alford, T.L. (ASU); Antoniou A (Georgia Tech); Bonfiglio, A. (U. Cagliari); Bringa, E. M (Universidad Nacional de Cuyo, Argentina); Cavallini, A. (U. Bologna); Cherkashin, N (CNRS); Claverie, A. (CNRS); Cosseddu, P. (U. Cagliari); Duchaineau, M (LLNL); Farkas, D (Virginia Tech); Fraboni, B. (U. Bologna); Ghisleni, R. (Stiftung Inst Werkstofftech, Germany); Harriman, T. A (U. Pitt); Jung, H (Kookmin Univ, South Korea); Lee, J.K. (U. Pitt); Lucca, D (OSU); Mayer, J.W. (ASU); Merabet, A. (Univ Ferhat Abbas, Algeria); Milita, S. (CNR, Italy); Monk, J.D. (Louisiana State U.); Okba, F (CNRS); Rossi, F. (Joint Res Ctr, Ispra, Italy); Scida, A. (U. Bologna); Shao, L (TAMU); Theodore, N.D. (Frescale); Zepeda-Ruiz, L (LLNL)

GRADUATE ADVISOR

James W. Mayer, Arizona State University, Emeritus

POSTGRADUATE-SCHOLAR SPONSOR (PREVIOUS 5 YEARS)

Lin Shao, A&M University, Texas

Hyun Jung, Kookmin University, South Korea

Engeng Fu, LANL