

NANO KOREA 2021

July 7~9, KINTEX, Korea

Jens K. Nørskov

Villum Kann Rasmussen Professor
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Nationality:

EDUCATION

1979 PhD in Theoretical Physics, University of Aarhus, Denmark

1976 MSc in Physics and Chemistry, University of Aarhus, Denmark

PROFESSIONAL ACTIVITIES

- 2019- Chair, Danish National Research Foundation
- 2018- Villum Kann Rasmussen Professor, Technical University of Denmark
- 2018- Professor, Department of Physics, Technical University of Denmark 2014-2018 Senior Fellow, Precourt Institute for Energy, Stanford University
- 2010-2018 Leland T. Edwards Professor in the School of Engineering, Stanford University
- 2010-2018 Professor, Departments of Chemical Engineering and Photon Science, Stanford University and SLAC National Accelerator Laboratory
- 2010-2018 Director, SUNCAT Center for Interface Science and Catalysis, Stanford University and SLAC National Accelerator Laboratory
- 2009-2010 Director, Catalysis for Sustainable Energy Initiative, Technical University of Denmark
- 2006-2010 Director, The Lundbeck Foundation's Center for Atomic-scale Materials Design (CAMD), Technical University of Denmark
- 2004-2009 Director, DTU Nano-technology Center, Technical University of Denmark
- 2001-2008 Chair, Danish Center for Scientific Computing (DCSC)
- 1999 Visiting Professor, Department of Chemistry, University of California, Santa Barbara, CA, USA 1993-2003 Director, Center for Atomic-scale Materials Physics (CAMP), Technical University of Denmark
- 1992-2010 Professor of theoretical physics, Department of Physics, Technical University of Denmark 1987-1992 Professor by special appointment of the Danish Minister of Research, Laboratory of Applied Physics, Technical University of Denmark

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- 1982-1985 Assistant Professor, Nordita, (Nordic Institute for Theoretical Physics), Copenhagen
- 1981, 85-87 Scientific Staff, Haldor Topsøe A/S, Lyngby
- 1979 -1981 Post Doctoral Fellow, IBM T. J. Watson Research Center, Yorktown Heights, New York; Nordita (Nordic Institute for Theoretical Physics), Copenhagen; Å rhus University

AWARD AND HONORS

- Havinga Medal, Leiden University, 2019
- Dr. Honoris Causa, Technical University of München, 2018
- Niels Bohr International Gold Medal, 2018
- ETH Zurich Chemical Engineering Medal, 2018
- European Inventor Award, European Patent Office, 2016
- Murray Raney Award, Organic Reactions Catalysis Society, 2016
- The Carlsberg Foundation Research Prize, Royal Danish Academy of Science and Letters, 2015
- Honorary Professor of the Dalian Institute of Chemical Physics, Chinese Academy of Sciences, 2015 Rigmor og Carl Holst-Knudsen's Award, Aarhus University, 2015
- Irving Langmuir Prize in Chemical Physics, American Physical Society, 2015
- Elected Foreign Member of the US Academy of Engineering , 2014
- Michel Boudart Award for the Advancement of Catalysis, North American Catalysis Society and the European Federation of Catalysis Societies, 2013
- Hagemann Medal, Technical University of Denmark, 2013
- Dr. Honoris Causa, Norwegian University of Science and Technology, Trondheim, Norway, 2012
- Elected Member of Academia Europea
- Giuseppe Parravano Memorial Award for Excellence in Catalysis Research, Michigan Catalysis Society, 2011
- Alwin Mittasch Award, Germany, 2009 • Gerhard Ertl Lecture Award, Berlin, Germany, 2009
- Gabor A. Somorjai Award for Creative Research in Catalysis, American Chemical Society, 2009
- Science of Hydrogen and Energy Award, Switzerland, 2009 • Grundfos Prize, Copenhagen, 2007
- Mulliken Medal, University of Chicago, Illinois, USA, 2007 • Dr. Honoris Causa, Technical University of Eindhoven, The Netherlands, 2006
- The Innovation Prize, DTU, 2005 • Elected Fellow of the American Physical Society, 2003
- Richard A. Glenn Award, American Chemical Society, 2003 • Elected member of the Royal Danish Academy of Science and Letters, 1996
- Villum Kann Rasmussen's Award, Lyngby, 1991
- Danish Physical Society's Prize of 1990
- Samuel Friedman (Rescue) Award, 1989
- Reinholdt W. Jorch's Award, 1987
- Elected member of the Danish Academy of Engineering (ATV), 1987

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- Professor by special appointment of the Danish Minister of Research and Education, 1987
- ECOSS prize, Cambridge, UK 1979

Lectureships

- Marvel Lecture, EPFL, Switzerland, 2020
- Niels Bohr Lecture, Niels Bohr Institute, University of Copenhagen, 2019
- Professor Mikhail Slin'ko Honorary Lecture, Ghent, 2018
- H. C. Ørsted Lecture, Technical University of Denmark, 2018
- Institute for Molecular Engineering Distinguished Lecture, University of Chicago, 2017
- Berkeley Lecture, Department of Chemical and Biomolecular Engineering, University of California, Berkeley, 2016
- Zhnag Dayu Lecture, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, 2015
- Dodge Lecture, Yale University, 2015
- Bayer Distinguished Lecture, University of Pittsburgh, 2014
- DGIST Distinguished Lecture, Daegu Institute of Science and Technology, South Korea, 2014
- Donald L. Katz Lecture in Chemical Engineering, University of Michigan, 2011.
- Kenneth S. Pitzer Memorial Lecture, Department of Chemistry, University of California, Berkeley, 2009
- Olaf A. Hougen Visiting Professor, Department of Chemical and Biological Engineering, University of Wisconsin, Madison, 2007
- Mulliken Lecture, University of Chicago, Illinois, 2007
- Magister Lecture, University of Barcelona, 2004
- Distinguished Catalyst Lecture, Pacific Northwest National Laboratory, Washington, 2004
- G.C.A. Schuit Lecture, University of Delaware, 2002
- Ford Distinguished Lecture, Dearborn, Michigan, 2001
- Gwathmey Distinguished Lecture, University of Virginia, 1998

RESEARCH

- Research interests in the theoretical description of surfaces, catalysis, materials, and nanostructures. Ca. 580 published papers (cited >150 000 times (>20 000 in 2020), H-index 193, according to Google Scholar; >125 000 times (>17 000 in 2020), H-index 174 according to ISI, March 2021), 20 patents or patent applications.

Miscellaneous

- Member of Scientific Advisory Board for Netherlands Center for Multiscale Catalytic Energy Conversion, 2015-;
- Member of Scientific Advisory Board for the Max-Planck-Institute for Chemical Energy Conversion, 2014-;
- Member of the International Advisory Board of the State Key Laboratory of Catalysis (SKLC), Dalian Institute of Chemical Physics, Chinese Academy of Sciences, 2014-2019;

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- Director, Chemical Science Division, SLAC National Accelerator Laboratory, 2013-14;
- Member of the Condensed Matter and Materials Research Committee, Board on Physics and Astronomy, US National Academies, 2013-16;
- Member of Advisory Board, Innovation Center Denmark, Silicon Valley, 2012-2017;
- Member of the Board of Directors, Haldor Topsøe A/S, 2010-;
- Member of the Helios SERC External Advisory Council, Lawrence Berkeley National Laboratory, 2009- 2011;
- Member of the Board of Directors, Topsøe Fuel Cells A/S, 2009-2014; 3
- Member of the Scientific Advisory Board, UniCat, Technische Universität Berlin, Germany, 2008-2012;
- Co-chair US National Academies Committee on the Review of the U.S. Department of Energy, Basic Energy Sciences Catalysis Science Program, 2008;
- Member of the Scientific Advisory Board of the Center for Nano-technology, University of DuisburgEssen, Germany, 2007- 2012;
- Member of the Advisory Board of the State Key Laboratory for Surface Physics (SKLSP), Chinese Academy of Sciences & Division of Surface Physics, Beijing National Lab for Condensed Matter Physics, 2006-2010;
- Member of the International Advisory Board, The Partnership for International Research and Education, University of California, Santa Barbara, USA, 2005-2010;
- Co-founder of Amminex A/S, 2005. Amminex A/S develops diesel emission control and energy storage technology (now part of Faurecia Group, <https://www.faurecia.com/en/innovation/sustainablemobility/solutions-cleaner-urban-mobility>);
- Member of Board of Directors, Amminex A/S 2005-2010; • Member of the Scientific Advisory Board, Photo-nano Program, Chalmers University of Technology, Sweden, 2004 –2009;
- Member of the Science Policy Committee for the Danish Academy of Engineering, 2004 -2007;
- Member of the Scientific Advisory Board, Center for Functional Nanostructures, Brookhaven National Laboratory, USA, 2003 – 2005;
- Member of the Danish Research Council for the Technical Sciences, 2000-2003;
- Member of the Committee for the Niels Bohr Medal 1997 – 2010;
- Member of the physics evaluation committee under the Swedish Research Council for the Technical Sciences (TFR), 1993-1998;
- Member of Chemistry and Materials Committee, Danish Research Council for the Technical Sciences, 1987-1996;
- Member of Fachbeirat der Fritz-Haber-Institut der Max-Planck Gesellschaft, 1986-2004;
- Member of the Editorial Board of Energy and Environmental Science, 2018-;
- Member of the International Advisory Board, Angewandte Chemie, 2014-2018;
- Member of the Editorial Board of Journal of Chemical Physics, 2006-2009;
- Member of the Editorial Board of Physical Chemistry Chemical Physics Journal, 2001-2004;
- Member of the Editorial Board of Journal of Catalysis 1997-;
- Member of the Editorial Board of Industrial Catalysis News, 1998-1999;

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- Member of the Editorial Board of Catalysis Letters, 1995-;
- Member of the Editorial Board of Surface Science, 1995-1999, 2014-;
- Member of the Editorial Board of Chemical Physics Letters, 1994-1996, 2007-2015.