

## Uwe R. Kortshagen

Ph.D., Professor, Department of Mechanical Engineering,  
University of Minnesota, 111 Church Street S.E., Minneapolis, MN 55455  
(updated March, 2005)

### Education:

Nov. 1995      Habilitation in experimental physics, University of Bochum, Germany.  
Jan. 1991      Ph.D. in physics, University of Bochum, Germany.  
June 1988      Diploma degree in physics, University of Bochum, Germany.

### Academic Employment:

8/2003- present: Professor, Mechanical Engineering, U. of Minnesota  
1999 - present: Graduate Faculty of Physics, School of Physics and Astronomy  
8/1999 – 8/2003: Associate Professor, Mechanical Engineering and Physics, U. of Minnesota.  
7/1996 – 8/1999: Assistant Professor, Mechanical Engineering, University of Minnesota.  
4/1996 - 7/1996: Lecturer, Dept. of Physics and Astronomy, University of Bochum, Germany.  
3/1995 – 3/1996: Visiting scholar, University of Wisconsin - Madison, Dept. of Physics.  
1/1991 – 3/1995: Research Associate, Dept. of Physics and Astronomy, University of Bochum.

### Publications:

62 publications in peer-reviewed journals (two of those under consideration).  
19 invited talks at international conferences and workshops.  
3 book articles.  
2 patents  
129 conference proceedings (partly reviewed).

**Research Interests:** Nonthermal plasma physics, plasma modeling and diagnostics, electron kinetics in nonthermal plasmas, nanoparticles in plasma environments, applications of nanoparticles.

### Awards and Honors:

2004-      Board of Directors, International Plasma Chemistry Society  
2004      Fellow, Institute of Physics, London  
2004      Program Committee, Gordon Research Conference on Plasma Processing Science, Holderness, NH, August 2004.  
2002      Secretary and local organizer of the 55<sup>th</sup> Gaseous Electronics Conference, Minneapolis, Oct. 2002.  
2001-      Director, NSF-IGERT training grant for Nanoparticle Science and Engineering  
2001-      Director of Graduate Studies, Freestanding Minor in Nanoparticle Science and Engineering  
2001-2005      Scientific Advisory Board of the Institute of Low-Temperature Plasma Physics in Greifswald, Germany  
2000-2003      Executive Committee of the Gaseous Electronics Conference of American Physical Society

- 2001 International Organizing Committee, 15<sup>th</sup> International Symposium on Plasma Chemistry, Orleans, France, 2001
- 2000 Program Committee, Gordon Research Conference on Plasma Processing Science, Tilton, NH, July 2000.
- 1999 NSF Career Award
- 1998 Editor of the NATO ASI Series volume "Electron Kinetics and Applications of Glow Discharges," Plenum Publishing Corp., New York, 1998.
- 1997 Director NATO Advanced Research Workshop on "Electron Kinetics and Applications of Glow Discharges," May 19-23, 1997, St. Petersburg, Russia.
- 1997 Mayhugh Assistant Professor
- 1994 Lynen Award of Alexander von Humboldt Foundation.
- 1991 "Preis an Studenten," best dissertation award of the Ruhr-Universität Bochum.

**Memberships to Professional Organizations:**

American Physical Society (APS)  
American Society of Mechanical Engineers (ASME)  
Alexander von Humboldt Association of America  
Deutsche Physikalische Gesellschaft (DPG, German Physical Society)  
Materials Research Society  
Sigma Xi

**Reviewer for Federal Agencies:**

Department of Energy  
National Science Foundation

**Reviewer for Professional Journals:**

Aerosol Science and Technology  
AIAA Journal  
Applied Physics Letters  
Contributions to Plasma Physics  
European Journal of Applied Physics  
Europhysics Letters  
IEEE Transactions on Plasma Science  
International Journal of Heat and Mass Transfer  
Journal de Physique III  
Journal of Applied Physics  
Journal of Nanoparticle Research  
Journal of Physics D: Applied Physics  
Journal of Physical Chemistry  
Journal of Plasma Physics  
Journal of Vacuum Science and Technology A  
Plasma Sources Science and Technology  
Plasma Chemistry and Plasma Processing  
Physics of Plasmas  
Physical Review E  
Physical Review Letters