

Prof. Dr. Peter R. Schreiner, PhD

Date of birth: November 17, 1965

Institute of Organic Chemistry, Justus-Liebig-University, Heinrich-Buff-Ring 17, D-35392 Giessen, Germany; Tel.: +49-641-9934100; prs@uni-giessen.de; www.uni-giessen.de/schreiner



Education

- 1999 Privatdozent (PD), *venia legendi*, U Göttingen
- 1995 Ph.D., Computational Chemistry with Prof. H. F. Schaefer III, Center for Computational Quantum Chemistry, U Georgia, *summa cum laude*
- 1994 Dr. rer. nat., Organic Chemistry with Prof. P. v. R. Schleyer, U Erlangen-Nürnberg; *summa cum laude*
- 1992 Dipl. Chem., U Erlangen-Nürnberg, *with highest honors*

Academic Career

- 2013 Call for W3-Professor of *Sustainable Organic Chemistry*, U Göttingen, Germany, *declined*
- 2012 Call for Director of *Green Chemical Futures*, Monash U, Melbourne, Australia, *declined*
- 2002–date Full Professor, Justus-Liebig-University Giessen
- 2000–2002 Associate Professor of Chemistry, Dept. of Chemistry, U Georgia, Athens, USA
- 1996–1999 Habilitand, U Göttingen, Germany

Research Interest

Organocatalysis | Functionalized Nanodiamonds | Reactive Intermediates | Computational Chemistry

Awards and Honors

- Arthur C. Cope Scholar Award* of the American Chemical Society (2021)
- Academy Award of the Berlin-Brandenburg Academy of Science* (2020)
- Inauguration of Stan Brown Lecture*, Queens U, Kingston, Canada (2020)
- Lloyd B. Thomas Lecture*, U Missouri, Columbia, USA (2019)
- Boehringer-Ingelheim Lectures*, Boston College, USA, (2019)
- The Royal Society of Chemistry Physical Organic Chemistry Award* (2019/20)
- Tarrant Distinguished Visiting Professor*, U Florida, Gainesville, USA (2019)
- Novartis Lecture*, Yale U, New Haven, USA (2018)
- Inauguration of The Kornis Family Lecture*, UNSW Sydney (2018)
- Japanese Society for the Promotion of Science (JSPS) Invitation Fellowship*, Japan (2018)
- Elected member, Academy of Science and Literature | Mainz* (as of 2017)
- Adolf-von-Baeyer Memorial Medal of the GDCh* (2017)
- Patai-Rappoport Lecture*, European Symposium on Organic Chemistry (ESOC), Cologne (2017)
- Craig Visiting Professorship*, Australian National University, Canberra (2017)
- Australian Assoc. of Theor. and Comput. Chem. Lectureship*, Australia (2017)
- Kurt-Alder Lecture*, University of Cologne, Germany (2015)
- Corresponding member, North Rhine-Westphalian Academy of Sciences, Humanities, and the Arts* (as of 2015)
- Swiss Chemical Society Lectureship* (2014)
- Elected member, Leopoldina – German National Academy of Science* (as of 2013)
- Science Award of the German Technion (Israel Institute of Technology) Society* (2013)
- Honorary lifetime membership, Polish Chemical Society* (as of 2013)
- Schulich Visiting Professorship* (03/2012), Israel Institute of Technology (Technion), Haifa, Israel
- Pregl Lecture* (2012), National Institute of Chemistry, Ljubljana, Slovenia
- Honorary lifetime membership, Israel Chemical Society* (as of 2009)
- Schleyer Lecture* (2010), The University of Georgia, USA
- Török Lecture* (2008), Eötvös University Budapest, Hungary
- Dirac Medal* (2003), World Association of Theoretically Oriented Chemists (WATOC)
- Research Innovation Award* (2000), Research Corporation
- ADUC-Prize for Assistant Professors* (1999), German Chemical Society
- Award from the Otto-Röhm-Gedächtnisstiftung* (1999)
- Liebig-Fellowship of the Fonds der Chemischen Industrie* (1997–1999)
- Robert C. Anderson Memorial Award* (1996), Best dissertation 1995, U of Georgia, all fields
- Karl-Giehl-Prize* (1995), Best dissertation 1994, University of Erlangen-Nürnberg, all fields
- Martin-Reynolds-Smith-Award* (1993), American Chemical Society (ACS), SE section
- Fellow of the Studienstiftung des Deutschen Volkes* (1992–94)

Community Service

President of the German Chemical Society (GDCh) (2020 & 2021)
Member of the Expert Commission of Leopoldina – German National Academy of Science (since 2016)
DFG Review Board Member (since 2016, re-election 2019)
Chairman, Scientific Counsel, Max-Planck-Institute for Coal Research, Mülheim a. d. R., Germany (since 2016)
Vice President for Research (Justus-Liebig University, 2012–2015)
Minerva Foundation board member, Weizmann Institute, Rehovot, Israel (2015–2020)
Board member, World Association of Theoretical and Computational Chemists (WATOC, since 2014)
ADUC-Chairman, Association of German University Professors of Chemistry (2011–2013)
Associate Editor, *Beilstein Journal of Organic Chemistry* (2011–date)
Chairman, Dechema Board on Kinetics and Reaction Mechanisms (2009–2019)
Editorial Advisory Board Member, *Journal of Physical Organic Chemistry* (2009–date)
Liaison's Person, Studienstiftung des Deutschen Volkes (2007–date)
Editor-in-Chief, *WIREs Computational Molecular Sciences* (2007–date)
Dean, Faculty of Biology and Chemistry (2006–2009)
Associate Dean, Faculty of Biology and Chemistry (2003–2006)
Editorial Advisory Board Member, *European Journal of Organic Chemistry* (2006–2014)
Editor, *Journal of Computational Chemistry* (2000–date)
Associate Editor, *Encyclopedia of Computational Chemistry* (1996–2006)

Publications (since 1993)

> 400 peer-reviewed publications, 20 book chapters, 12 patents, and 36 contributions to popular science
> 20,000 citations, H-index = 66

Full list: <http://www.uni-giessen.de/cms/fbz/fb08/Inst/organische-chemie/agschreiner/publications>

Ten most significant recent publications:

1. Competitive nitrogen versus carbon tunnelling. C. M. Nunes, A. K. Eckhardt, I. Reva, R. Fausto, P. R. Schreiner *J. Am. Chem. Soc.* **2019**, *141*, 14340.
2. Gas-phase sugar formation using hydroxymethylene as the reactive formaldehyde isomer. A. K. Eckhardt, M. M. Linden, R. C. Wende, B. Bernhardt, P. R. Schreiner *Nat. Chem.* **2018**, *10*, 1141.
3. Sizing the Role of London Dispersion in the Dissociation of all-*meta tert*-Butyl Hexaphenylethane. S. Rösel, C. Balestrieri, P. R. Schreiner *Chem. Sci.* **2017**, *8*, 405.
4. Trifluoromethylhydroxycarbene: Conformer-specific hydrogen-atom tunneling. A. Mardyukov, H. Quanz, P. R. Schreiner *Nature Chem.* **2017**, *9*, 71–77.
5. Gas phase preparation of carbonic acid and its monomethyl ester. H. P. Reisenauer, J. P. Wagner, P. R. Schreiner *Angew. Chem. Int. Ed.* **2014**, *53*, 11766.
6. Overcoming Extremely Long C–C Alkane Bond Lability through Attractive Dispersion Forces. P. R. Schreiner, L. V. Chernish, P. A. Gunchenko, E. Yu. Tikhonchuk, H. Hausmann, M. Serafin, S. Schlecht, J. E. P. Dahl, R. M. K. Carlson, A. A. Fokin *Nature* **2011**, *477*, 308.
7. Methylhydroxycarbene: Tunneling Control of a Chemical Reaction. P. R. Schreiner, H. P. Reisenauer, D. Ley, D. Gerbig, C.-H. Wu, W. D. Allen *Science* **2011**, *332*, 1300.
8. (Thio)urea organocatalysis – What can be learnt from anion recognition? Z. Zhang and P. R. Schreiner *Chem. Soc. Rev.* **2009**, *38*, 1187–1198.
9. Capture of Hydroxymethylene and its fast Disappearance Through Tunnelling. P. R. Schreiner, H. P. Reisenauer, F. Pickard, A. C. Simmonett, W. D. Allen, E. Mátyus, A. G. Császár *Nature* **2008**, *453*, 906.
10. Monochromatic Electron Photoemission from Diamondoid Monolayers. W. K. Yang, J. D. Fabbri, T. M. Willey, J. R. I. Lee, J. E. Dahl, R. M. K. Carlson, P. R. Schreiner, A. A. Fokin, B. A. Tkachenko, N. A. Fokina, W. Meevasana, N. Mannella, K. Tanaka, X. J. Zhou, T. van Buuren, M. A. Kelly, Z. Hussain, N. A. Melosh, Z.-X. Shen *Science* **2007**, *316*, 1460.