

Curriculum vitae Prof. Klaus-Müllen, emeritus professor at MPI-P

Personal information

Name Professor Klaus Müllen
Date and place of birth Cologne, 02.01.1947
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Professional Career

1966–1969 Studies in Chemistry, University of Cologne
1969 Degree in Chemistry (Professor E. Vogel)
1971 PhD-work, University of Basel (Professor F. Gerson)
1972–1978 Postdoctoral training and Habilitation (Professor J.F.M. Oth), ETH Zürich
1979–1984 Professor University of Cologne
1984–1989 Professor University of Mainz
1988 Offer from the University of Göttingen
1989 Scientific Member of the Max-Planck-Society and Director at the Max Planck Institute for Polymer Research
1992 Offer from the University of Cologne

Professional Duties

1995 Member of the Editorial Boards of Macromolecular Chemistry and Physics, Journal of Materials Chemistry, Journal of Macromolecular Science, Pure and Applied Chemistry
1995-2011 Editor of Synthetic Metals
1998 Editor of Polymer Bulletin
1998 Member of the Evaluation Committee of Chemistry Departments in North Rhine Westphalia (Germany)
1999 Member of the Selection Committee of the Alexander-von-Humboldt- Foundation
2000 Member of the Advisory Board of the Center of Nanoscience, University of Munich
2001 Member of the Evaluation Committee for Chemistry in the Netherlands
2003 Member of the Editorial Board of the Journal of the American Chemical Society
Chairman of the Advisory Committee of Eidgenössisches Materialprüfungsamt
2004 Member of the Editorial Board of Chemistry of Materials
2005 Member of the Editorial Board of Chemistry Letters
Member of the Editorial Board of Chemistry World
Member of the Editorial Board of Accounts of Chemical Research
2006 Member of the Editorial Board of Macromolecules
Member of the Editorial Board of Macromolecules – An Indian Journal, BioChemistry – An Indian Journal
Member of the International Advisory Board of Chemistry – An Asian Journal
Member of the Senate Committee of the German Science Foundation
Associate Editor of the Journal of the American Chemical Society
2008-2009 President of the German Chemical Society

August 23, 20021

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- 2009: Head of Competence Center „Innovation Lab (IL)“, Heidelberg
2010 - Member of the Advisory Council Mercator Foundation, Essen
2011-2017 Member of the Senate of the Max Planck Society
2012 Member of the Editorial Board of BioNanoMaterials
Member of the administrative board of the Max Planck Institute for Coal Research
2013-2014 President of the German Association for the Advancement of Science and Medicine
2015 Member of the Advisory Board of the International Conference on the Science and Technology of Synthetic Metals ICSM
Member of The ECME Steering Committee
Member of the Advisory Board of the Center for NanoScience, Munich
Member of the Advisory Board « Quantum Effects in Electronic Nanodevices“
Member of the Spinoza Selection Committee for the Netherlands Organization for Scientific Research
Member of the International Advisory Committee of State Key Laboratory of Physical Chemistry of Solid Surfaces of Xiamen University
Member of the iChem International Advisory Board (Collaborative Innovation Center of Chemistry for Energy Materials)
Chair of the Assessment Committee for Technical Universities of the Netherlands
2016 Member of the Editorial Advisory Board « ChemPhotoChem »
Member of the Scientific Advisory Board of the Center of Advancing Electronics Dresden of the TU Dresden
2018 Member of the Editorial Advisory Board of « Polymers »
2019 Member of the Advisory Board of Material Chemistry Frontiers
Member of the Advisory Board of Science China Chemistry
Chairman of the Scientific Committee of the International Centre for Innovative Biomaterials Research (ICRI-BioM)
Member of the Selection Panel for the «Gravitation Programme», Netherlands Organisation for Scientific Research
2020 Member of the Editorial Board of Dyes and Pigments

Awards and Lectureships

- 1990 Visiting Professor, University of Osaka (JSPS)
1993 Max-Planck-Research-Prize
Honorary Professor, East China University of Technology, Shanghai
1995 Richard-Willstätter-Lecturer, Jerusalem
Honorary Professor University Mainz
1996 Capita-Selecta-Lecturer, Katholieke University of Leuven
1997 Philip-Morris-Research-Prize
Melville-Lecturer, University of Cambridge
1998 Visiting Professor, University of Rennes
2000 Bruno-Werdemann-Lecturer, University of Essen
2001 Honorary Doctorate, University of Sofia
Bayer Distinguished Lecturer, Washington University, St. Louis
Smets-Lecturer, Belgium
2001 Nozoe-Award, San Diego
2002 Lane Lecturer, Champaign, University of Urbana
Kyoto University Foundation Award
2003 Science Award of the Stifterverband
2005 Deutschland in Japan Lectureship Award of the Chemical Society Japan

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- 2006 International Award of the Belgian Polymer Group
Honorary Professor, Chinese Academy of Sciences, Institute of Applied Chemistry, Changchun
Butler Lecturer, University of Florida, Gainesville
Barré Lecturer, University of Montreal
Bender Lecturer, Northwestern University, Evanston
ICI Distinguished Lecturer, University of Calgary
- 2007 Otto-Bayer-Lecturer, University of Cologne
- 2008 Hermanos Elhuyar – Hans Goldschmidt Award of the Spanish Chemical Society
Visiting Professor, University of Bordeaux
Honorary Professor, Institute of Chemistry, Beijing, Chinese Academy of Sciences
Bayer Lecturer, University of Pittsburgh
S. Kwolek Lecturer, Carnegie Mellon University,
Innovation Award of the State of North Rhine Westphalia
Nicolaus August Otto Award
- 2009 Visiting Scientist, University of Marseille
Society of Polymer Science Japan International Award
Honorary Professor, Jiao Tong University, Shanghai, China,
Honorary Professor University of Heidelberg
Honorary Member of the Israel Chemical Society
- 2010 Honorary Doctorate, Karlsruhe Institute of Technology
- 2011 ACS Award in Polymer Chemistry
Tsunghing Tu Award of the National Science Councils, Taiwan
Distinguished Visiting Professor, National University Singapore
- 2012 BASF-Award for Organic Electronics
Einstein Professor, Chinese Academy of Science
Gordon Stone Lecturer, University of Bristol
Honorary Doctorate, Jiao Tong University, Shanghai
- 2013 Franco-German Award of the Société Chimique de France
Adolf-von-Baeyer-Medal, German Chemical Society
Utz-Hellmuth-Felcht Award of the SGL Group
ChinaNANO Award
- 2014 Carl Friedrich Gauß-Medal, Braunschweigische Wissenschaftliche Gesellschaft
ACS Nano Lectureship Award
- 2015 J. T. Donald Lecturer, McGill University, Montreal
The Thomas Graham Lecturer, University of Strathclyde, Glasgow
Honorary Doctorate, University of Ulm
van't Hoff Award, Royal Netherlands Academy of Sciences
- 2016 Honorary Professor, Beijing University of Chemical Technology
Fellow of the Gutenberg Research College
Herbert C. Brown Lecturer at Purdue University
Hermann-Staudinger-Award, German Chemical Society
Honorary Doctorate, University of Cologne
- 2017 Award of the Academy of Sciences and Humanities in Hamburg
Principal Distinguished Professor, Dongguan University of Technology
- 2018 Honorary Doctorate, Technion Israel Institute of Technology
Paul G. Gassmann Lecturer, University of Minnesota
IKCOC Prize 2018, The 14th International Kyoto Conference on New Aspects of Organic Chemistry, November 2018

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- 2019 Honorary Doctorate, University of Patras, Greece
Karl-Ziegler-Award of the German Chemical Society
Cothenius Medal, German National Academy of Sciences Leopoldina
Honorary Professor, Northwestern Polytechnical University, Xian
Award for Excellent Supervisors of Chinese PhD Students, GCCCD (Society of Chinese Chemists and Chemical Engineers in the Federal Republic of Germany)
- 2020 Spiers Memorial Award of the Royal Society of Chemistry
Honorary Professor, University of Cologne
Leonardo da Vinci Award 2020 of the European Academy of Sciences
- 2021 Honorary Doctorate, University of Strasbourg
Honorary Doctorate, Lodz University of Technology

Academy memberships

- 1999 Member of the German National Academy of Sciences Leopoldina
2012 Member of the North Rhine-Westphalian Academy for Sciences and Arts
2013 Member of the American Academy of Arts & Sciences
2015 Member of the European Academy of Sciences (EURASC)
Corresponding member of the Braunschweigische Wissenschaftliche Gesellschaft
2017 Member of the Academia Europaea
Member of acatech – National Academy of Science and Engineering
2019 Corresponding member of the Saxon Academy of Sciences and Humanities in Leipzig
2020 Fellow of the Royal Society of Chemistry

Research targets

- Graphenes and carbon materials;
- new polymer-forming reactions ;
- multi-dimensional polymers with complex shape-persistent architectures;
- functional polymeric networks, in particular for catalytic purposes;
- dyes and pigments;
- chemistry and physics of single molecules;
- molecular materials with liquid crystalline properties for electronic and optoelectronic devices;
- biosynthetic hybrids;
- nanocomposites.

Major scientific contributions

> 2078 scientific publications (Source: Scopus, August 19, 2021)

h-index: 172 (Source : Google Scholar, August 2019, 2021)

161 (Source: Scopus, August 19, 2021)

> 70 former associates are now professors in academic institutions worldwide

Top-10 most-cited papers (Scopus)

1. Title: Transparent, conductive graphene electrodes for dye-sensitized solar cells
Authors: Wang, Xuan; Zhi, Linjie; Muellen, Klaus
Source: NANO LETTERS Volume: 8 Issue: 1 Pages: 323-327
Published: JAN 2008
Times cited: 3815
2. Title: Atomically precise bottom-up fabrication of graphene nanoribbons
Authors: Cai, Jinming; Ruffieux, Pascal; Jaafar, Rached; et al.
Source: NATURE Volume: 466 Issue: 7305 Pages: 470-473
Published: JUL 2010
Times cited: 2416
3. Title: Self-organized discotic liquid crystals for high-efficiency organic photovoltaics
Authors: Schmidt-Mende, L; Fechtenkotter, A; Muellen, K; et al.
Source: SCIENCE Volume: 293 Issue: 5532 Pages: 1119-1122
Published: AUG 2001
Times cited: 2209
4. Title: Graphenes as potential material for electronics
Authors: Wu, Jishan; Pisula, Wojciech; Muellen, Klaus
Source: CHEMICAL REVIEWS Volume: 107 Issue: 3 Pages: 718-747
Published: MAR 2007
Times cited: 2131
5. Title: 3D Nitrogen-Doped Graphene Aerogel-Supported Fe₃O₄ Nanoparticles as Efficient Electro-catalysts for the Oxygen Reduction Reaction
Authors: Wu, Zhong-Shuai; Yang, Shubin; Sun, Yi; et al.
Source: JOURNAL OF THE AMERICAN CHEMICAL SOCIETY Volume: 134 Issue: 22 Pages: 9082-9085
Published: JUN 2012
Times cited: 1799
6. Title: Large single-molecule fluorescence enhancements produced by a bowtie nanoantenna
Authors: Kinkhabwala, Anika; Yu, Zongfu; Fan, Shanhui; et al.
Source: NATURE PHOTONICS Volume: 3 Issue: 11 Pages: 654-657
Published: NOV 2009
Times cited: 1539
7. Title: Big is beautiful - "Aromaticity" revisited from the viewpoint of macromolecular and supramolecular benzene chemistry
Authors: Watson, MD; Fechtenkotter, A; Mullen, K
Source: CHEMICAL REVIEWS Volume: 101 Issue: 5 Pages: 1267-1300
Published: MAY 2001
Times cited: 1163

8. Title: Nitrogen-Doped Ordered Mesoporous Graphitic Arrays with High Electrocatalytic Activity for Oxygen Reduction

Authors: Liu, Ruili; Wu, Dongqing; Feng, Xinliang; et al.

Source: ANGEWANDTE CHEMIE-INTERNATIONAL EDITION Volume: 49

Issue: 14 Pages: 2565-2569

Published: MAR 2010

Times cited: 1114

9. Title: Three-Dimensional Nitrogen and Boron Co-doped Graphene for High-Performance All-Solid-State Supercapacitors

Authors: Wu, Zhong-Shuai; Winter, Andreas; Chen, Long; et al.

Source: ADVANCED MATERIALS Volume: 24 Issue: 37 Pages: 5130-5135

Published: SEP 2012

Times cited: 1095

10. Title: Efficient synthesis of heteroatom (N or S)-doped graphene based on ultrathin graphene oxide-porous silica sheets for oxygen reduction

Authors: Yang S., Zhi L., Tang K., Feng X., et al.

Source: Advanced Functional Materials, Volume: 22, Issue: 17, Pages 3634-3640

Published: SEP 2012

Times cited: 1035