| | |
|---|---|
| **Name** | **Prof. Dr. Jürgen Rühe** |
| Date of birth | 10.05.1961 |
| Current position | Professor and Head of the Laboratory for Chemistry and Physics at Interfaces |
| Research | New methods for high tech polymer coatings, physical properties of polymer thin films, tailor-made surfaces of microengineered devices, coatings for biomedical applications, biocompatibility, wetting of surfaces, nanoscience, nanobioscience |
| Homepage | https://www.cpi.uni-freiburg.de/ |
| E-mail | ruehe@imtek.uni-freiburg.de |

**Professional activities**

| | |
|---|---|
| 2008 - 2014 | Vice Rector for Internationalization and Technology Transfer, Albert-Ludwigs-University, Freiburg |
| 1999 - present | Professor for Chemistry and Physics of Interfaces, Institute of Microsystems Technology, Albert-Ludwigs-University, Freiburg |
| 1995 - 1999 | Associate Professor ("C3-Stelle der MPG"), Max-Planck-Institute for Polymer Science, Mainz, Head of a group on interface chemistry |
| 1995 | Habilitation in Macromolecular Sciences, University of Bayreuth |
| 1991 - 1995 | Research Associate University of Bayreuth; Liebig-fellow of the Foundation of the Chemical Industry, Fellow of the German Science foundation |
| 1989 - 1990 | Postdoc IBM Research Division, Almaden Research Center, San Jose CA (USA) |

**Academic Background**

| | |
|---|---|
| 1989 | PhD in Chemistry, Thesis: Charge Transport Mechanism in Substituted Polyheterocycles |
| 1986 - 1989 | PhD studies, Max-Planck-Institute for Polymer Science, Mainz in cooperation with Johannes-Gutenberg-University Mainz (Advisor: Prof. G. Wegner)1986: MSc in Chemistry ("Dipl.-Chem.") (Advisor: Prof. H.J. Schäfer) |
| 1981 - 1986 | Studies of Chemistry, University of Münster |

**Scientific Honors, Editorial Boards, Other Scientific Activities**

Visiting professor at Stanford University (Stanford, USA), RIKEN (Tokio, Japan), Georgia Institute of Technology, Cambridge University (UK), University of California at Santa Barbara (USA)

| | |
|---|---|
| Since 2008 | Member of the Board MicroTec Südwest, one of the largest hi-tech clusters in Europe |
| 2004 - 2010 | Member of Advisory Board of the Hahn-Schickard Society |
| 2001 | Award of the Society for Chemical Technology and Biotechnology DECHEMA |
| 1999 | Award for Chemistry of the Academy of Sciences, Göttingen |
| 08/98 - 2005 | Consulting professor at the Department of Chemical Engineering at Stanford University; affiliate member of the "Center for Polymer Interfaces and Macromolecular Assemblies" (CPIMA) |

**Publications**


1. Christian Dorrer, Jürgen Rühe; Condensation and wetting transitions on microstructured ultrahydrophobic surfaces, Langmuir, Vol. 23 (7), 2007, 3820-3824. DOI: 10.1021/la063130f.
2. Christian Dorrer, Jürgen Rühe, Contact line shape on ultrahydrophobic post surfaces Langmuir, Vol. 23 (6), 2007, 3179-3183. DOI: 10.1021/la062596v.
3. Christian Dorrer, Jürgen Rühe; Wetting of Silicon Nanograss: From Superhydrophilic to Superhydrophobic Surfaces, Advanced Materials, Vol 20, 2008, 159-163. DOI: 10.1002/adma.200701140.
4. Christian Dorrer and Jürgen Rühe; Some thoughts on superhydrophobic wetting, Soft Matter, Vol 5, 51-61, 2009, 51-61. DOI: 10.1039/B811945G.
5. Christian Dorrer and Jürgen Rühe: Micro to nano: Surface size scale and superhydrophobicity, Beilstein J. Nanotechnol., Vol 2, 2011, 327-332-1. DOI: 10.3762/bjnano.2.38.
6. Jonas Groten, Chrstine Bunte, Jürgen Rühe; Light induced switching of surfaces at wetting transitions through photoisomerization of polymer monolayers, Langmuir, 2012; 28: 15038-15046. DOI: 10.1021/la302764k.
7. Vitaliy Kondrashov, Jürgen Rühe; Microcones and Nanograss: towards mechanically robust superhydrophobic surfaces, Langmuir, 2014,30, 4342-4350. DOI: 10.1021/la500395e.
8. Srinivas Bengaluru Subramanyam, Vitaliy Kondrashov, Jürgen Rühe, and Kripa K. Varanasi, Low Ice Adhesion on Nano-Textured Superhydrophobic Surfaces under Supersaturated Conditions; ACS Applied Materials & Interfaces 2016, 8, 12583–12587. DOI: 10.1021/acsami.6b01133.
9. Roland Hönes, Vitaliy Kondrashov, Haosu Huai, and Jürgen Rühe; Wetting Transitions in Polymer Nanograss Generated by Nanoimprinting, Macromolecular Chemistry and Physics 2017, 218, 1700056. DOI: 10.1002/macp.201700056.
10. Roland Hönes, Vitaliy Kondrashov, and Jürgen Rühe; Molting materials: Restoring Superhydrophobicity after Severe Damage via Snakeskin-like Shedding, Langmuir 2017, 33, 4833–4839. DOI: 10.1021/acs.langmuir.7b00814.


**Patents**

1) Dr. Thomas Brandstetter, Prof. Dr. Jürgen Rühe, Marc Zinggeler: Verfahren zur Herstellung von Kryogelen 17.06.2016

2) Dr. Thomas Brandstetter, Prof. Dr. Jürgen Rühe, Frank Scherag: Assay in a Pipette-Tip 26.08.2015

3) Prof. Dr. Jürgen Rühe, Frank Scherag, Dr. Thomas Brandstetter: Stabförmiger Messgrößenaufnehmer 07.01.2015