

Curriculum vitae

Dr. Thomas Pfohl

Experimentelle Polymerphysik
Institut für Physik
Universität Freiburg
Hermann-Herder-Str. 3
D-79104 Freiburg
+49 761 203 5863

Scientific career

05/2017 –	Academic Researcher Experimental Polymer Physics, University of Freiburg, Germany
01/2017 – 03/2018	Scientific Coordinator of the proposal of “livMatS” initiative (positively approved 27/09/2018) University of Freiburg, Germany
2016 – 2017	Project Leader/Senior Researcher Biomaterials Science Center, University of Basel
2009 – 2016	Assistant Professor Physical Chemistry, Chemistry Department, University of Basel
2004 – 2011	Project Leader Max Planck Institute for Dynamics and Self-Organization, Dynamics of complex fluids group, Göttingen
2001 – 2006	Emmy Noether Group Leader, supported by DFG (Pf 375/2)
2000 – 2004	Project Leader at University of Ulm, Applied Physics
1998 – 2000	Postdoc at Materials Research Laboratory, University of California, Santa Barbara, with Prof. Dr. Cyrus Safinya
1995 – 1998	PhD thesis with Prof. Dr. Helmuth Möhwald und Dr. Hans Riegler Max Planck Institute of Colloids and Interfaces, Berlin-Adlershof, <i>Do alkanes wet hydrophilic liquid and solid surfaces?</i> Dissertation (Dr. rer. nat.) at University of Potsdam, 04.08.1998
1994 – 1995	Diploma thesis with Prof. Dr. Helmuth Möhwald and Dr. Hans Riegler, Johannes Gutenberg University Mainz, <i>Characterization of amphiphilic monolayers in and without contact of n-alkanes by ellipsometry und surface light scattering</i>
1989 – 1995	Study of Chemistry at Johannes Gutenberg University Mainz Diploma: 10.01.1995

Honors and awards

2008	Physics price of the academy of sciences, Göttingen
2001 – 2006	Emmy Noether group leader (supported by DFG)
1998 – 2000	Postdoc-scholarship of DFG

Scientific Mentor and Advisor	Postdocs (6), PhD-students (15), Master and diploma students (15)
Scientific Publishing	Scientific articles and book contributions (> 90) in the fields of Physics, Biophysics, Physical Chemistry, Biology, Materials and interdisciplinary research
Scientific Advisory Boards	ESRF Grenoble Review Committee (2017 –) Leibniz Research Cluster (LRC) "Bio/Synthetische multifunktionale Mikro- Produktionseinheiten – Neuartige Wege zur Wirkstoffentwicklung" (2016 –) Swiss NanoConvention (2013) Swiss Soft Days (2010 – 2015)
Scientific Outreach	Chair of the organization team of "Fest der Moleküle", 2 Days, more than 10'000 visitors, together with several national and international chemical and pharmaceutical companies from Basel at the University of Basel, 2011

10 Important Publications

- a) Articles which at the time of proposal submission have been published or officially accepted by publication outlets with scientific quality assurance, listed in standard format; book publications.
- 01 I. Hug, S. Deshpande, K. S. Sprecher, **T. Pfohl**, U. Jenal
Second messenger-mediated tactile response by a bacterial rotary motor
Science **358**, 531-534 (2017).
 - 02 N. Strelnikova, N. Sauter, M. Guizar-Sicairos, M. Göllner, A. Diaz, P. Delivani, M. Chacon, I. M. Tolić, V. Zaburdaev, **T. Pfohl**
Live cell X-ray imaging of autophagic vacuoles formation and chromatin dynamics in fission yeast
Scientific Reports **7**, 13775 (2017).
 - 03 M. A. Gerspach, N. Mojarad, D. Sharma, **T. Pfohl**, Y. Ekinici
Soft electrostatic trapping in nanofluidics
Microsystems & Nanoengineering **3**, 17051; doi:10.1038/micronano.2017.51 (2017).
 - 04 A. Hochstetter, E. Stellamanns, S. Deshpande, S. Uppaluri, M. Engstler, **T. Pfohl**
Microfluidics-based single cell analysis reveals drug-dependent motility changes in trypanosomes
Lab on a Chip **15**, 1961-1968 (2015).
 - 05 S. Deshpande, **T. Pfohl**
Real-time dynamics of emerging actin networks in cell-mimicking compartments
PLOS ONE **10**, e0116521, (2015).
 - 06 E. Stellamanns, S. Uppaluri, A. Hochstetter, N. Heddergott, M. Engstler, **T. Pfohl**
Optical trapping reveals propulsion forces, power generation and motility efficiency of the unicellular parasites *Trypanosoma brucei brucei*
Scientific Reports **4**, 6515 (2014).
 - 07 D. Steinhäuser, S. Köster, **T. Pfohl**
Mobility gradient induces cross-streamline migration of semiflexible polymers
ACS Macro Letters **1**, 541-545 (2012).
 - 08 M. Engstler, **T. Pfohl**, S. Herminghaus, M. Boshart, G. Wiegertjes, Niko Heddergott, P. Overath
Hydrodynamic flow-mediated protein sorting on the cell surface of trypanosomes
Cell **131**, 505-515 (2007).

- 09 **T. Pfohl**, A. Otten, S. Köster, R. Dootz, B. Struth, H. M. Evans
Highly packed and oriented DNA mesophases identified using in situ microfluidic x-ray
microdiffraction
Biomacromolecules **8**, 2167-2172 (2007).
- 10 R. Dootz, H. Evans, S. Köster, **T. Pfohl**
Rapid prototyping of X-ray microdiffraction compatible continuous microflow foils
Small **3**, 96-100 (2007).
- b) Other publications.
