

Research Profile Prof. Dr. Thomas Hellweg



General Information

Hellweg, Thomas, Dr | 07.05.1965| married, 1 child
Universität Bielefeld, Fak. f. Chemie, PC III, Universitätsstr. 25,
33615 Bielefeld
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Professor (W3) for physical and biophysical chemistry

Academic Education and Degrees

06/1991	Diploma in chemistry, Universität Bielefeld
11/95	Promotion, Universität Bielefeld (Prof. Dorfmueller)
01/2005	Habilitation, TU Berlin (Prof. Findenegg)

Professional Career

03/96 - 02/97	Grant of the C.I.E.S. for the "Centre de Recherche Paul Pascal (CRPP)" (Prof. Langevin)
03/97 - 04/98	Postdoctoral fellow (Chargé de recherche) CRPP (Prof. Roux)
05/98 - 02/01	Postdoctoral fellow TU Chemnitz, Inst. f. Physik (Prof. Suck)
03/01 - 02/07	Habilitand TU Berlin at the Stranski-Lab. (Prof. Findenegg)
03/07 - 09/10	Professor for physical chemistry of colloids at Bayreuth university
since 10/10	Professor for physical and biophysical chemistry at Bielefeld university

Additional Information

2002 – 2007	Member of "Comitee Scientifique" Laboratoire Léon Brillouin, Saclay, France
04/2007	Call to Institut Laue Langevin ILL Grenoble (ILL Fellow for Soft Condensed Matter), (rejected)
2005 – 2008	Member of "Subcommittee 9" of the ILL
10/2009 – 09/2010	Chairperson of Fachgruppe Chemie at Universität Bayreuth
10/2009 – 05/2014	Mitglied des "scientific Selection Panel" des HZB
10/2011 – 09/2017	Elected member and vice-chairman of the KFN (German neutron user organization)
since 05/2016	Member of PRP «Soft Matter: Bulk» at DESY/PETRA III
since 09/2016	Member of the editorial advisory board of ACS Omega
since 05/2017	Member of the Scientific Council of the ILL
since 04/2018	Member of the Scientific Selection panel of MLZ Munich
05/2018- 09/2020	Member of the Science Advisory Council (SAC) of the European Spallation Source in Lund
since 03/2019	Member of the Scientific Advisory Board of MLZ Munich
since 11/2021	Chief Specialty Editor, Frontiers in Soft Matter
since 01/2022	Editorial Board Member of Colloid and Polymer Science

10 Most Important Publications

- 1) M. Karg, M., I. Pastoriza-Santos, L. M. Liz-Marzan and Th. Hellweg: A versatile Approach for the Preparation of Thermosensitive PNIPAM Core-Shell Microgels with Nanoparticle Cores. *Chem. Phys. Chem.*, **2006**, *7*, 2298-2301.
- 2) M. Karg, I. Pastoriza-Santos, J. Perez-Juste, T. Hellweg, and L. M. Liz-Marzan, L. M. : Nanorod-coated PNIPAM microgels: Thermoresponsive optical properties. *Small*, **2007**, *3*, 1222-1229
- 3) L. Rodriguez Arriaga, I. Lopez-Montero, F. Monroy, G. Orts Gil, B. Farago, T. Hellweg: Stiffening effect of cholesterol on disordered lipid phases: a combined NSE + DLS analysis of the bending elasticity of large unilamellar vesicles based on POPC. *Biophys. J.*, **2009**, *96*, 3629
- 4) S. Schmidt, M. Zeiser, T. Hellweg, C. Duschl, A. Fery, and H. Möhwald: Adhesion and Mechanical Properties of PNIPAM Microgel Films and their Potential Use as Switchable Cell Culture Substrates. *Adv. Func. Mater.*, **2010**, *20*, 3235-3243
- 5) M. Karg, T. Hellweg, and P. Mulvaney: Self-Assembly of Tunable Nanocrystal Superlattices Using Poly-(NIPAM) Spacers. *Adv. Func. Mater.*, **2011**, *21*, 4668-4676
- 6) J. Schmelz, M. Karg, T. Hellweg, and H. Schmalz: A General Pathway toward Crystalline-Core Micelles with Tunable Morphology and Corona Segregation. *ACS Nano*; **2011**, *5*, 9523-9534.
- 7) R. Rodriguez-Garcia, M. Mell, I. López-Montero, J. Netzel, T. Hellweg, and F. Monroy: Polymersomes: smart vesicles of tunable rigidity and permeability. *Soft Matter*, **2014**, *7*, 1532-1542.
- 8) S. Bergmann, O. Wrede, T. Huser, and T. Hellweg: Super-Resolution Optical Microscopy resolves Network Morphology of Smart Colloidal Microgels. *Physical Chemistry Chemical Physics*, **2018**, *20*, 5074-5083.
- 9) O. Wrede, Y. Reimann, S. Lülldorf, D. Emmrich, K. Schneider, A. J. Schmid, D. Zauser, Y. Hannappel, A. Beyer, R. Schweins, A. Gölzhäuser, T. Hellweg, and T. Sottmann: *Volume phase transition kinetics of smart N-n-propylacrylamide microgels studied by time-resolved pressure jump small angle neutron scattering*, *Scientific Reports*, **2018**, *8* (1), 13781.
- 10) M. Dirksen, P. Fandrich, L. Goett-Zink, J. Cremer, D. Anselmetti, and T. Hellweg, T. *Thermoresponsive microgel-based free-standing membranes: Influence of different microgel cross-linkers on membrane function*, *Langmuir*, **2022**, *38* (2), 638–651.