PROF. ULLRICH STEINER

CURRICULUM VITAE, OCTOBER 2018

1. Personal information

Position:	Chair in Soft Matter Physics, Adolphe Merkle Institute, Fribourg; web: ami.swiss/physics
Identifiers:	ORCID: 0000-0001-5936-339X; Google Scholar: Ullrich Steiner (user=uTjdToAAAAAJ)
Publications:	∼270 publications; ∼15300 citations; h-index: 70; current citation rate: ca. 2200 per year

2. Education

1990	Habilitation in experimental physics, Konstanz University, Germany
1993	Dr. Rer. Nat. (doctorate in Physics), with distinction, Konstanz University.
1089:	Dip. Phys. (Physics diploma), Konstanz University, Germany

3. Employment history

2014–	Soft Matter Physics Chair, Adolphe Merkle Institute, Fribourg
2004–14	John Humphrey Plummer Professor of the Physics of Materials Cavendish Laboratory, University of Cambridge
1999–04	Professor of Polymer Chemistry, Department of Polymer Chemistry, University of Groningen, NL
1996–99	Head of Polymers at Interfaces group, Physics Department, Konstanz University, Germany
1995–96	Postdoctoral Research Assistant, Institut Charles Sadron, Strasbourg, France
1993–95	Postdoctoral Research Assistant, Department of Physics of Complex Systems, Weizmann Institute
1989–93	Research Assistant, Department of Materials and Interfaces, Weizmann Institute, Israel
1988–89	Research Assistant, Polymer Department, Weizmann Institute, Israel

4. Institutional responsibilities

2018–	Vice-director of the Adolphe Merkle Institute
2017–	Member of the research promotion committee of the University of Fribourg
2014–	Member of executive board of the Adolphe Merkle Institute
2015–	Organization and lead: "Specialized Master of Science in the Chemistry and Physics of Soft Materials"
2004–14	Served on a range of departmental, faculty and appointment committees at the Department of Physics of the University of Cambridge
2004–05	Head of the Biological and Soft Systems sector of the Department of Physics

5. Currently funded research projects

2017–21	PIRE: Bio-inspired Materials and Systems
2016–20	Horizon 2020 Innovative Training Network PlaMatSu: "Insect repellent wrinkly colloids"
2016–17	SATW Transferkolleg project: "Self-decalcifying coatings for heating elements"
2016–19	SNSF: "Self-assembled optical metamaterials"
2015–19	SNSF, NRP70: "Hierarchically structured materials for super-capacitors and batteries"
2015–19	SNSF, NRP70: "Novel Generation Perovskite Devices"
2014–18	SNSF NCCR Bioinspired Materials: "Multi-responsive photonic materials
2014–18	SNSF NCCR Bioinspired Materials: "Interplay of order and disorder in biophotonic materials"

6. Supervision of junior researchers

Advancement of former group members into academic positions.

2018	Alessandro Sepe: Shanghai Institute of Applied Physics, Chinese Academy of Sciences, Professor
2017	Antonio Abate: Helmholtz Zentrum Berlin, Young Investigator Group
2016	Sandeep Pathak: Indian Institute of Technology Delhi, Assistant Professor
2015	Stefan Guldin, University College London, Lecturer in Chemical Engineering
2014	Silvia Vignolini, University of Cambridge, Reader in Chemistry
2014	Li Li, East China Normal University, Assistant Professor in Chemistry
2014	Sven Hüttner, University of Bayreuth, Junior Professor in Chemistry
2013	Mathias Kolle, MIT, Assistant Professor in Mechanical Engineering
2013	Pola Goldberg Oppenheimer, University of Birmingham, Lecturer in Chemical Engineering

2012	Urbasi Sinha, Raman Research Institute, Bangalore, Associate Professor
2012	Erik Schäffer, University of Tübingen, Professor for Cellular Nanoscience
2010	Sabine Ludwigs, University of Stuttgart, Full Professor (Chair) in Chemistry
2000	Elías Pérez, Universidad Autonóma de San Luis Potosí, Mexico, Profesor-Investigador

Supervised post-docs (6 current, 16 past): Somayyeh Gholipour, Efrain Ochoa Martinez, Michael Saliba, Esteban Bermudez, Ilja Gunkel, Bodo Wilts, Xio Hua (University of Oxford), Alessandro Sepe (Chinese Academy of Science), James Dolan (University of Chicago), Silvia Vignolini (University of Cambridge), Gen Kamita (GMO Internet), Alex Finnemore (Cytrusbyte), Maik Scherrer(Papierfabrik Lousienthal), Sandeep Pathak (IIT Dehli), Sven Hüttner (U. Bayreuth), Katherine Thomas (APS, Physical Review), Peter Kohn (Bosch), Urbasi Sinha (RRI, India), Sabine Ludwigs (U. Stuttgart), Jakob Heier (EMPA Dübendorf), Frank Terjung, Elías Pérez (U. San Luis Potosí)

Supervised PhD students (12 current, 35 past): Parnian Ferdowsi, Narjes Abdollahi, Doha Abdelrahman, Johannes Bergmann, Antonio Günzler, Cédric Kilchoer, Mirela Malekovic, Andrea Palumbo, Alexandre Redondo, Sandy Sanchez, Xioayuan Sheng, Preston Sutton, Karolina Korzeb, Michael Fischer, Tobias Wenzel (EMBL), Bart Roose (U. Cambridge), Karl Gödel, Jonathan Lim (DSO Singapore), James Dolan (U. Chicago), Harry Beeson (British Parliament), Raphael Dehmel (P. Louisenthal), Zhuxia Rong , Stefano Salvatore (Intel), Gen Kamita (GMO Internet), Pedro Salgård Cunha (Base4), Alex Finnemore (Citrusbyte), Stefan Guldin (UCL), Ellie Kim (Mc Kinsey), Li Li (East China Normal U.) , Maik Scherrer (P. Louisenthal), Katherine Thomas (APS), Pola Goldberg Oppenheimer (U. Birmingham), Sven Hüttner (U. Bayreuth), Mathias Kolle (MIT), Rosa Poetes (Mc Kinsey), Nicoleta Voicu (DSM), David Barbero (U. Umea), Mihaela Nedelcu (Continental), Ed Crossland (Oxford PV), Pieter van der Wal (Merit Coatings), Stephan Harkma TNO), Ole Göbel (Bruker), Mihai Morairu (DSM), Erik Schäffer (U. Tübingen), Stefan Walheim (KIT), Martin Böltau (VDI)

7. Teaching Activities

Responsible for Soft Matter Physics Teaching since 1999 at 3 universities. *Current courses:* Soft Matter Physics, Polymer Engineering, Energy Material, Functional Materials

8. Memberships in panels, boards, etc.

2005–09	Founding Chairman of the Editorial Board of "Soft Matter" (RSC)
2012–	Member of the Editorial Board of "Advanced Optical Materials" (Wiley)
2014–	Member of the international advisory board of the Centre for Doctoral Training in Nanoscience and Nanotechnology, Cambridge

Frequent member of review panels of the German Science Foundation (DFG) and EPSRC (UK)

9. Fellowships and memberships in academic societies

2005–	Fellow of the Royal Society of Chemistry
2007–2014	Fellow of St. Edmunds College
1991–	Member of the American Physical Society
1989–	Member of the German Physical Society

10. Organization of conferences

2016	Fall Meeting of the MRS, Symposium Biomineralization, 27 Nov.-2 Dec. 2016, Boston
2013	EMRS Symposium Organic & hybrid interfaces in excitonic solar cells, Strasbourg, France
2011	10th International Conference on Materials Chemistry (MC10), 4-7 July 2011, Manchester
2009	Faraday Discussion 143: Soft Nanotechnology, 15-17 June 2009, London
2008	International conference on Self-assembly and Self-organisation 10-12 Dec 2008, Cambridge.

11. Prizes, awards, fellowships

2016	Peabody visiting Professor at MIT
2014	Macro Group UK Medal of the Royal Society of Chemistry
2014	Selby Traveling Fellowship by Australian Academy of Science
2008–2010	Fellow of the Freiburg Institute of Advanced Studies (FRIAS)
2002	Raymond and Beverly Sackler Prize for Physical Sciences
1998–99	Heisenberg Fellow, German Science Foundation
1996–98	Fellow (Habilitationsfelloship), German Science Foundation
1995–96	Fellow, Alfred Kastler Foundation, France
1994–95	Fellow, Weizmann Foundation, Israel
1993–94	Postdoctoral Fellow, German Science Foundation
1990–92	Scholar, Minerva Foundation, Germany

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Full publication list

http://ami.swiss/physics/en/publications/http://orcid.org/0000-0001-5936-339X https://scholar.google.com/citations?user=uTjdToAAAAAJ

10 notable publications

[1] E. Schäffer, T. Thurn-Albrecht, T.P. Russell, and U. Steiner. Electrically induced structure formation and pattern transfer. *Nature*, 403(6772):874–877, Citations:. 803.

[2] S. Vignolini, P. J. Rudall, A. V. Rowland, A. Reed, E. Moyroud, R. B. Faden, J. J. Baumberg, B. J. Glover, and U. Steiner. Pointillist structural color in pollia fruit. *Proceedings of the National Academy of Sciences*, Citations:. 228.

[3] S. Guldin, S. Hüttner, M. Kolle, M.E. Welland, P. Müller-Buschbaum, R.H. Friend, U. Steiner, and N. Tétreault. Dye-sensitized solar cell based on a three-dimensional photonic crystal. *Nano Letters*, 10(7):2303–2309, Citations:. 299.

[4] E.J.W. Crossland, M. Kamperman, M. Nedelcu, C. Ducati, U. Wiesner, D.-M. Smilgies, G.E.S. Toombes, M.A. Hillmyer, S. Ludwigs, U. Steiner, and H.J. Snaith. A bicontinuous double gyroid hybrid solar cell. *Nano Letters*, 9(8):2807–2812, Citations:. 367.

[5] S. Walheim, E. Schäffer, J. Mlynek, and U. Steiner. Nanophase-separated polymer films as high-performance antireflection coatings. *Science*, 283(5401):520–522, Citations:. 694.

[6] D. Wei, M.R.J. Scherer, C. Bower, P. Andrew, T. Ryhänen, and U. Steiner. A nanostructured electrochromic supercapacitor. *Nano Letters*, 12(4):1857–1862, Citations:. 202.

[7] Alexander Finnemore, Pedro Cunha, Tamaryn Shean, Silvia Vignolini, Stefan Guldin, Michelle Oyen, and Ullrich Steiner. Biomimetic layer-by-layer assembly of artificial nacre. *Nature Communications*, Citations:. 199.

[8] Mathias Kolle, Pedro M. Salgard-Cunha, Maik R. J. Scherer, Fumin Huang, Pete Vukusic, Sumeet Mahajan, Jeremy J. Baumberg, and Ullrich Steiner. Mimicking the colourful wing scale structure of the papilio blumei butterfly. *Nature Nanotechnology*, 5(7):511–515, Citations:. 258.

[9] H.M. Whitney, M. Kolle, P. Andrew, L. Chittka, U. Steiner, and B.J. Glover. Floral iridescence, produced by diffractive optics, acts as a cue for animal pollinators. *Science*, 323(5910):130–133, Citations:. 232.

[10] Edwige Moyroud, Tobias Wenzel, Rox Middleton, Paula J. Rudall, Hannah Banks, Alison Reed, Greg Mellers, Patrick Killoran, M. Murphy Westwood, Ullrich Steiner, Silvia Vignolini, and Beverley J. Glover. Disorder in convergent floral nanostructures enhances signalling to bees. *Nature*, 550:469–474, Citations:. 11.

Date: October 14, 2018.