

# Cluster Paper and Fibre (CPF)

## Innovations for Paper and Fibre

### Curriculum Vitae

**Prof. Dr. rer. nat. habil. Markus Biesalski**

Vice-Director  
Institute of Technical  
and Macromolecular Chemistry,  
Department of Chemistry,

Professor and Chair (W3),  
Laboratory of Macromolecular Chemistry  
and Paper Chemistry,

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### Employment History

- since **09/2008**: **Professor** (W3, Macromolecular Chemistry & Paper Chemistry),  
Technische Universität Darmstadt, Department of Chemistry.
- 2007 – 2008**: **Substitute Professor** (W3)  
Dept. of Microsystems Eng., University of Freiburg
- 2002 – 2008**: **Assistant Professor** (C1)  
Dept. of Microsystems Eng., University of Freiburg
- 2002 – 2007**: **Head of Emmy-Noether Research Group**, DFG,  
University of Freiburg
- 2000 – 2002**: **Postdoctoral Assistant**  
Dept. of Chem. Eng. & Materials Research Lab, UC Santa Barbara, USA
- 1996 – 1999**: **Scientific Coworker**  
Max-Planck-Institute for Polymer Research, Mainz

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### Education

- 06/2008:** *University of Freiburg*  
**venia legendi**  
(Microsystems Engineering; Chemistry & Physics of Interfaces),
- 2000 – 2002:** *University of California, Santa Barbara, USA*  
**Postdoctoral Associate**, with Prof. Matt Tirrell
- 1997 – 1999:** *Max-Planck-Institute for Polymer Research, Mainz, Germany*  
**Ph.D. in Chemistry**, with Prof. Jürgen Rühle
- 1990 – 1996:** *University of Mainz, Germany*  
Chemistry Studies, **Diploma in Chemistry**  
Mainz, Germany

### Fellowships, Activities, Honours

- since **2013:** Sonderfachgutachter AiF
- since **2013:** Vice spokesperson, Cluster *New Materials and Devices*, TU Darmstadt
- since **2012:** Vice-Director, Institute of Technical and Macromolecular Chemistry,  
Department of Chemistry, Technische Universität Darmstadt
- since **2011:** Principle Investigator, Excellence Cluster *Smart Interfaces* (CSI), TU Darmstadt
- since **2010:** Coordinator and spokesperson, Excellency Research Center *Soft Control*,  
TU Darmstadt
- since **2009:** Editorial Board Member, *Soft Materials*
- since **2008:** Member, Cluster Paper Research
- since **2007:** Editorial Board Member, *Open J. Macromolecules*
- 2004 – 2006:** Fellow of Landesstiftung Baden-Württemberg gGmbH
- 2002 – 2007:** Emmy-Noether Fellow of the DFG
- 2000 – 2002:** Postdoctoral Fellowship of the DFG
- 1999:** Ph.D. with distinction (“summa cum laude”)
- member of:** ACS, GDCh, DGM, DHV, CPR

# Cluster Paper and Fibre (CPF)

## Innovations for Paper and Fibre

### Research Core-Expertise

- Functional Polymers & Hybrid Polymers
- Surface Modification using Polymer Thin Films
- Paper Chemistry & Paper Engineering
- Functional Paper
- Paper Microfluidics
- Surface and Paper Chemical Analytics

### Publications & Patents

(as of april 2014)

- Publications: > 60
- Patents: 4
- h-index: 21

### Selected Publications

(comprehensive list can be found at [www.chemie.tu-darmstadt.de/map](http://www.chemie.tu-darmstadt.de/map))

- A. Böhm, F. Carstens, S. Schabel, M. Biesalski\*, *Engineering Microfluidic Papers: Effect of Fiber Source and Paper Sheet Properties on Capillary Driven Fluid Flow*, *Microfluidics & Nanofluidics* 16, 789-799 (2014).
- H. Schenderlein, A. Voß, R. Stark, M. Biesalski\*, *Preparation and Characterization of Light-Switchable Polymer Networks Attached to Solid Substrates*, *Langmuir* 29(14), 4525-4534 (2013).
- Böhm, M. Gattermayer, C. Trieb, S. Schabel, D. Fiedler, F. Miletzky, M. Biesalski\*, *Photo-attaching functional polymers to cellulose fibers for the design of chemically modified paper*, *Cellulose* 20(1), 467-483 (2013).
- S. Petersen, M. Gattermayer, M. Biesalski\*, *Microstructured thin peptide-polymer films that spatially control the surface-attachment of living cells*, *Int. J. Artificial Organs* 34, 210-214 (2011).
- P. Samyn, J. Rühle, M. Biesalski\*, *Polymerizable biomimetic vesicles with controlled local presentation of adhesive functional DOPA groups*, *Langmuir* 26(11), 8573-8581 (2010).