CV of Univ.-Prof. habil. Dr.-Ing. Stephan Barcikowski

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Short Bio

Stephan Barcikowski studied chemistry in Braunschweig and Hannover and got his PhD in Materials Science and Engineering. Barcikowski built the Nanomaterials group at the Laser Zentrum Hannover and later led the institute's Materials Processing department. Since 2011, he has been chairing the Institute of Chemical Technology I at the University of Duisburg-Essen, and since 2022 the research center ACTIVE SITES. Stephan Barcikowski has more than 400 reviewed papers and patents, cited over 24,000 times, including an open-access handbook that has been downloaded over ten thousand times. He launched the scientific video channel 'nanofunction' on YouTube with more than 100,000 viewings, and served editing and guest-editing several journals. His research addresses laser synthesis and processing of particles for catalysis, biomedicine, and additive manufacturing. The research directions range from fundamentals and mechanistic insights to upscaling and benchmark testing.

Postgraduate Professional Career

since 2022	Director, Research Center ACTIVE SITES (www.uni-due.de/activesites/)
since 2011	Full Professor, Chemical Technology, Faculty of Chemistry, UDE
2010–2011	Head of Department Materials and Processes, with 25 scientific staff, Laser Zentrum Hannover e.V.
2004–2010	Head of Group Nanomaterials, with 12 scientific staff, Laser Zentrum Hannover e.V.
1998–2004	Scientific Employee, Laser Zentrum Hannover e.V.
1998	Scientific Employee, Rofin Sinar Laser AG

Advanced Academic Qualifications

2011	Habilitation and Venia legendi (Chemical Technology, Mentor Prof. T. Scheper), Leibniz University of Hannover
2004	PhD with honors (Dr.-Ing., mit Auszeichnung, Mechanical Engineering, Supervisor: Prof. Dr. Ing. Dr.-Ing. E.h. mult. Dr. med. h.c. H. Haferkamp), Leibniz University of Hannover

Academic Education

1999–2000	Accreditation Studies of Engineering (Promotionszulassungsstudium), Leibniz University of Hannover
1995–1998	Studies of Chemistry (Diplom), Leibniz University of Hannover
1991–1995	Studies of Chemistry (Vordiplom), Technical University of Braunschweig

Research Experience Abroad

2017	Visiting Professor (6 months), Chemistry Department, University of Padua, Italy
2003–2007	Guest Scientist (several visits), Commonwealth Scientific and Industrial Research Organisation (CSIRO), Geochemistry Group, Sydney, Australia

Awards and Recognition (selection)

2021	Berthold Leibinger Innovation Award
2019	Call for W3 Professorship, Leibniz University Hannover
2013	Best Faculty Teacher (Lehrpreis), Faculty of Chemistry, Universität Duisburg-Essen
2009	1st price of national business plan competition "Medical Technology", Hannover
2006	1st price for scientific work (dissertation), Foundation of Industrial Research
1990	Prize of the Chemical Industry Fund (FCI) for the best chemistry high school diploma

Coordinated Research Programs (selection)

since 2025	Member, DFG RTG 3043 Advanced methods and technologies for proton therapy (AMTEC-PRO)
since 2023	Vice speaker, profile building program of NRW-MKW, Natural Water to Hydrogen
since 2020	Member and Steering Committee, DFG CRC/TRR 270 *Hysteresis Design of Magnetic Materials for Efficient Energy Conversion*
since 2020	Member and Steering Committee, MERCUR Research Training Group *Präzisionsprotonentherapie*
since 2018	Coordinator, DFG SPP 2122 *New materials for laser-based additive manufacturing*
since 2018	Member, DFG CRC/TRR 247 *Heterogeneous Oxidation Catalysis in the Liquid Phase*
2007–2012	Member, DFG Excellence Cluster REBIRTH - *From Regenerative Biology to Reconstructive Therapy*
2007–2011	Member, DFG CRC/TRR 37 *Micro and Nano Systems in Medicine*
2011–2017	Member, DFG Priority Research Program (SPP) 1313 *Nano-Bio-Responses*
2009–2015	Member, DFG Priority Research Program (SPP) 1327 *Optically generated nanostructures*

Technology Transfer

2020	Spin-Off AutoProNano, NRW Start-Up Funds, Mentor & Host (www.autopronano.eu)
2009	Co-founder of the company Particular GmbH (www.particular.eu)

Service to the Scientific Community

2014–2022	Editor, Applied Surface Science
since 2011	Guest editorships for J.PhysChemC, J.Coll.Int.Sc, ChemPhysChem, Mat. Des.
since 2020	Steering committee, PhD Course in Materials Science and Nanotechn., Univ. of Catania, Italy
since 2020	Advisory Board, DFG RTG 2610 *Innovative Retinal Interfaces for Optimized Artificial Vision*

Activities in Scientific and University Organizations

since 2019	Member, International Max Planck Research School SurMat
2019–2022	Advisory Senate Member, UDE
since 2016	Scientific Board Member, Materials Chain, Strategic Research Programme of the University Alliance Ruhr (Bochum, Dortmund, Duisburg-Essen)
2015–2018	Scientific Director, Center for Nanointegration Duisburg-Essen (CENIDE), UDE
2014–2015	Deputy Scientific Director, Center for Nanointegration Duisburg-Essen (CENIDE), UDE
2014–2020	Board Member, Center for Nanointegration Duisburg-Essen (CENIDE), UDE
since 2012	Commission of Finance and Development Planning, UDE (until 2022 Head of Comm.)
since 2011	Member, Center for Nanointegration Duisburg-Essen (CENIDE), Zentrum für Medizinische Biotechnologie (ZMB), and Zentrum für Wasser- und Umweltforschung (ZWU), UDE