Scientific CV – Dr. Manuel Gensler

Personal Information

Name: Dr. Manuel Gensler
Current Position: Fraunhofer Research Manager, Head of Ink & Printing Process Development
Institution: Fraunhofer Institute for Applied Polymer Research IAP
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Short Profile

Manuel Gensler is a chemist and physicist with strong focus on technology transfer from research and development into applications. His research interests are functional materials (polymers and nanomaterials), ink formulation, solution processing of devices (OLED, QDs, OPV, Perovskites) and single molecule physics. He has deep knowledge in printing technologies (Ink-Jet, EHD-Jet) and atomic force microscopy (AFM). His work includes a broad range of materials such as single (bio)polymers, organic materials, thin films, 2D-materials, supported lipid bilayers and nanomaterials. Since 2017 he has been working as project manager and since 2023 as research manager at the Fraunhofer IAP. Outside of the Fraunhofer IAP, he is active in the oe-a as spokesperson for the working group “encapsulation” and technical chair of LOPEC 2026, the leading trade fair in organic and printed electronics. He is treasurer for ChemieFreunde Erkner e.V., which aims to bring science, especially in the field of polymers, to a general audience.

Academic & Professional Career

Period	Position	Institution	Focus Areas
2023 – present	Senior Scientist & Fraunhofer Research Manager	Fraunhofer Institute for Applied Polymer Research IAP	Ink formulation and printing process development of functional electronic devices
2017 – 2021	Project Manager	Fraunhofer Institute for Applied Polymer Research IAP	Ink and process development for ultra high-resolution EHD-Jet printing

2008 – 2017	PhD Candidate	Humboldt-Universität zu Berlin	Single-molecule and polymer physics

Awards and Memberships

- LOPEC 2026: Technical Chair
- Since 2024: elected representative of Fraunhofer IAP for the Fraunhofer Scientific and Technical Council (STC)
- Since 2023: Treasurer for ChemieFreunde Erkner e.V.
- 2022: Civic award for volunteer work, Stadt Erkner
- Since 2021: Spokesperson of oe-a working group “Encapsulation”
- 2013: Civic award for volunteer work, Stadt Erkner
- Since 2005: German Chemical Society (Gesellschaft Deutscher Chemiker e.V.)
- 2004 – 2008: Student association “Chemistry” at HU-Berlin
- Since 2003: German Physical Society (Deutsche Physikalische Gesellschaft)
- Since 2003: ChemieFreunde Erkner e.V.

Selected Publications and Patents

- Y. Kim, M. Gensler, J. Kim, S. Janietz, C. Völkel, C. Boeffel, S. Solak, F. Hermerschmidt, E.J.W. List-Kratochvil, C.J. Han, M.S. Oh, K. Park, A. Wedel, "Quantum Dot/Organic Nanohybrids for InP-based QD-LEDs and Their Patterning via Electrohydrodynamic Jet Printing", SID Symp. Dig. Tech. Pap. **2024**, *55*, (69-4), DOI: 10.1002/sdtp.16732.
- C. Kirst, F. Knechtel, M. Gensler, D. Fischermeier, J. Petersen, N. A. Danaf, J. Tietze, A. Wedel, D. C. Lamb, R. Mitrić, K. Karaghiosoff, “Aggregation-Induced Emission in a Flexible Phosphine Oxide and its Zn(II) Complexes—A Simple Approach to Blue Luminescent Materials”, Adv. Funct. Mater. **2023**, *33*, 2212436, DOI: 10.1002/adfm.202212436.
- M. Gensler, “Verfahren zum Überführen von Metalltintenschichten in elektrisch leitfähige Strukturen”, DE102021131618A1 (**2023**).
- M. Gensler, C. Boeffel, A. Wedel, in Inkjet Printing in Industry: Materials, Technologies, Systems, and Applications (Ed.: W. Zapka), Wiley-VCH, Weinheim, **2022**, pp. 405–434, DOI: 10.1002/9783527828074.ch15.
- M. Gensler, C. Boeffel, S. Kröpke, A. J. Kronemeijer, T. H. Ke, N. Papadopoulos, J. Yao, J. Stark, P. Obene, “High-resolution printing for future processing of RGB OLED displays”, SID Symp. Dig. Tech. Pap. **2018**, *49*, 1117–1119, DOI: 10.1002/sdtp.12115.
- S. Liese, M. Gensler, S. Krysiak, R. Schwarzl, A. Achazi, B. Paulus, T. Hugel, J.P. Rabe, R.R. Netz, “Hydration Effects Turn a Highly Stretched Polymer from an Entropic into an Energetic Spring”, ACS Nano **2016**, *11*, 702–712. DOI: 10.1021/acsnano.6b07071.
- M. Gensler, C. Eidamshaus, M. Wagner, J. Gauss, J. P. Rabe, C. A. Schalley, “Mechanical stability of bivalent transition metal complexes analyzed by single-molecule force spectroscopy”, Beilstein J. Org. Chem. **2015**, *11*, 801–814, 10.3762/bjoc.11.91.
- M. Gensler, C. Eidamshaus, A. Galstyan, E. Knapp, H. Reissig, J. P. Rabe, "Mechanical Rupture of Mono- and Bivalent Transition Metal Complexes in Experiment and Theory", J. Phys. Chem. C **2015**, *119*, 4333–4343. DOI: 10.1021/jp511104m.

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