**Curriculum Vitae**

**Personal Data**

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|---|---|
| Title | Prof. Dr. |
| First name | Andreas |
| Name | Fery |
| Current position | Head of the Institute for Physical Chemistry and Polymer Physics and Deputy Scientific Director at IPF and Full Professor for Physical Chemistry of Polymeric Materials at TUD, permanent position |
| Current institutions/sites, country | Leibniz-Institut für Polymerforschung Dresden e. V. (IPF) and Technical University Dresden (TUD), Dresden, Germany |
| Identifiers/ORCID | 0000-0001-6692-3762 |

**Qualifications and Career**

| **Stages** | **Periods and Details** |
|---|---|
| Degree programme | Physics, 1990-1996, University of Konstanz, Germany |
| Doctorate | 2000, Prof. S. Herminghaus and Prof. H. Möhwald, Physics of condensed matter, University Potsdam / Max-Planck Institute for Colloids and Interfaces Golm, Germany |
| Habilitation | 2006, Prof. H. Möhwald, Physics of Interfaces, University Potsdam / Max-Planck Institute for Colloids and Interfaces Golm, Germany |
| Stages of academic/professional career | 2022 – current, Deputy Scientific Director at IPF, Germany<br>2015 – current, Full Professor Physical Chemistry of Polymeric Materials at TUD and Head of the Institute for Physical Chemistry and Polymer Physics at IPF, Germany<br>2008 – 2015, Full Professor and Chair holder Physical Chemistry II, University of Bayreuth, Germany<br>2007 – 2008, Associate Professor, Physical Chemistry of Polymers / Polymer Physics, University of Bayreuth, Germany<br>2001 – 2007, Group Leader, Max-Planck Institute for Colloids and Interfaces, Golm<br>2000 – 2001, Post-Doctoral Researcher, Institute Curie, Paris, France, Prof. F. Brochard-Wyart<br>2000 – 2000, Post-Doctoral Researcher, Max-Planck Institute for Colloids and Interfaces, Golm, Prof. H. Möhwald / Frank Caruso |

**Engagement in the Research System**

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| 2023 | Member of the International Scientific Committee of the 37. Conference of the European Colloid and Interface Society (ECIS), Naples. |
| Since 2023 | Member of the University Council of the University of Bayreuth |
| 2022 | Member of the International Scientific Committee of the 36. Conference of the European Colloid and Interface Society (ECIS), Crete |
| 2021-2023 | Member Editorial Advisory Board MDPI Gels |
| 2021-2024 | Award Committee Nernst-Haber-Bodenstein Award |
| 2020 | Member Scientific Committee Nanosafety, Spain |
| 2019-2023 | Deputy Head of the German Colloid Society |
| 2019 | 118th Bunsentagung, Member of the Scientific Board, Jena |
| 2019 | Member Advisory Board Elsevier Journal Colloids and Surfaces A |
| 2018-2023 | Member selection committee of the Alexander von Humboldt Foundation |
| Since 2018 | Member Advisory Board Elsevier Journal of Colloid & Interface Science |
| 2018-2022 | Board member of the center for innovation competence – Humoral immune reactions under cardiovascular diseases (ZIK HIKE) |
| 2017-2019 | Spokesperson Chemical and Polymer Physics Division of the German Physical Society |
| Since 2017 | Member Editorial Board Elsevier Nano Structures & Nano-Objects |
| 2017 | Member International Advisory Committee of the International conference on Polymer Processing and Characterization ICPPC, India |
| Since 2013 | Chairman Advisory Board of the Gerhard Schmidt Minerva Center Rehovot |
| 2012-2015 | Member Editorial Advisory Board ACS Applied Materials and Interfaces |
| Since 2010 | Member Advisory Board of the German Colloid Society |

**Supervision of Researchers in Early Career Phases**

Within the last 5 years supervision of 24 finished and 16 ongoing PhD thesis.

**Academic Distinctions**

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|---|---|
| 2022 | Spokesperson of the Leibniz Research Alliance “Advanced Materials Safety” |
| 2019-2023 | Deputy Head of the German Colloid Society |
| 2012 | ERC Starting Grant Consolidator Phase |
| 2005 | Richard Zsigmondy Stipend of the German Colloid Society |
| 2000 | Award of the Leibniz-Kolleg Potsdam for the best natural sciences/ mathematical PhD thesis of the year 2000. |

**Publications (last 10 years)**

**2024**


1. Li, Y., Zheng, T., Du, Y., Zhao, B., Patel, H. P., Boldt, R., Auernhammer, G. K., Fery, A., Li, J., Thiele, J., Titanium dioxide nanoparticles embedded in assembled dipeptide hydrogels for microfluidic photodegradation. *Journal of Colloid and Interface Science* **2024**, 654 Part A, 405-412.
2. Wieland, S., Ramsperger, A.F.R.M., Gross, W. et al. Nominally identical microplastic models differ greatly in their particle-cell interactions. *Nat Commun* **2024**, 15, 922.
3. P. T. Probst, Y. Dong, Z. Zhou, O. Aftenieva, A. Fery, Bottom-Up Assembly of Inorganic Particle-Based Chiroptical Materials. *Adv. Optical Mater.* **2024**, 12, 2301834.

4. Melendez, L.V., Nguyen, C. K., Wilms, M., Syed, N., Daeneke, T., Duffy, N.W., Fery, A., Della Gaspera, E., Gómez, D. E., Probing the Interaction between Individual Metal Nanocrystals and Two-Dimensional Metal Oxides via Electron Energy Loss Spectroscopy. *Nano Letters* **2024** 24 (6), 1944-1950.
5. Spengler, C.; Maikranz, E.; Glatz, B.; Klatt, M. A.; Heintz, H.; Bischoff, M.; Santen, L.; Fery, A.; Jacobs, K., The adhesion capability of Staphylococcus aureus cells is heterogeneously distributed over the cell envelope. *Soft Matter* **2024**, 20 (3), 484-449.

**2023**

6. Dong, Y.; Rossner, C.; Fery, A., Design strategies for creating cellulose-based nanomaterials with tailored optical functionality. *ACS Applied Optical Materials* **2023**, 1 (12), 1862-1878.
7. Hofmaier, M.; Heger, J. E.; Lentz, S.; Schwarz, S.; Müller-Buschbaum, P.; Scheibel, T.; Fery, A.; Müller, M., Influence of the Sequence Motive Repeating Number on Protein Folding in Spider Silk Protein Films. *Biomacromolecules* **2023**, 24 (12), 5707-5721.
8. Nebel, L. J.; Sander, O.; Knapp, A.; Fery, A., Formation of wrinkles on a coated substrate using manifold-valued finite elements. *PAMM Proceedings in Applied Mathematics and Mechanics* **2023**, 23 (3), e202300072.
9. Liao, X.; Sychev, D.; Rymsha, K.; Al-Hussein, M.; Farinha, J. P.; Fery, A.; Besford, Q. A., Integrated FRET Polymers Spatially Reveal Micro- to Nanostructure and Irregularities in Electrospun Microfibers. *Advanced Science* **2023**, 10 (36), 2304488.
10. Meena, K. K.; Arief, I.; Ghosh, A. K.; Liebscher, H.; Hait, S.; Nagel, J.; Heinrich, G.; Fery, A.; Das, A., 3D-printed stretchable hybrid piezoelectric-triboelectric nanogenerator for smart tire: Onboard real-time tread wear monitoring system. *Nano Energy* **2023**, 115, 108707.
11. Jones, A.; K., S. E.; Mayer, M.; Hoffmann, M.; Gross, N.; Oh, H.; Fery, A.; Link, S.; Landes, C. F., Active Control of Energy Transfer in Plasmonic Nanorod–Polyaniline Hybrids. *The Journal of Physical Chemistry Letters* **2023**, 14 (36), 8235–8243.
12. Voit, B.; Fery, A.; Stommel, M.; Sommer, J.-U.; Werner, C., 75 years of polymer research in Dresden, *Journal of Polymer Science* **2023**, 61 (6), 1705-1706.
13. Kularia, M.; Aftenieva, O.; Sarkar, S.; Steiner, A. M.; Gupta, V.; Fery, A.; Joseph, J.; Schmidt, M.; König, T. A. F., Self-assembly of plasmonic nanoparticles on optical fiber end face. *Journal of Polymer Science* **2023**, 61 (16), 1893-1901.
14. Besford, Q. A.; Rossner, C.; Fery, A., Messenger Materials Moving Forward: The Role of Functional Polymer Architectures as Enablers for Dynamic Nano-to-Macro Messaging. *Advanced Functional Materials* **2023**, 33 (32), 2214915.
15. He, Y.; Li, H.; Steiner, A. M.; Fery, A.; Zhang, Y.; Ye, C., Tunable Chiral Plasmonic Activities Enabled via Stimuli Responsive Micro-Origami. *Advanced Materials* **2023**, 35 (48), 2303595.
16. Fery, A.; Gradzielski, M.; Richtering, W.; Schmidt, C., Colloid Science - as modern as ever. The 51st Biennial Meeting of the German Colloid Society celebrating its 100th anniversary, 28-30 September 2022, Berlin. *Colloid and Polymer Science* **2023**, 301, 681-683.
17. Koch, C.; Müller, A.; Kahlmeyer, M.; Riske, T.; Melnyk, I.; Dähne, L.; Kaden, D.; Baitinger, M.; Fery, A.; Böhm, S., Mechanically induced dye-release from polyurea microcapsules in a rubbery adhesive. *Smart Materials and Structures* **2023**, 32 (8), 085024.
18. Rossner, C.; König, T. A. F.; Fery, A., Hairy Plasmonic Nanoparticles: From Synthesis to Applications. Wiley-VCH GmbH (**2023**) 351-374.

19. Huang, C.; Shang, X.; Zhou, X.; Zhang, Z.; Huang, X.; Lu, Y.; Wang, M.; Löffler, M.; Liao, Z.; Qi, H.; Kaiser, U.; Schwarz, D.; Fery, A.; Wang, T.; Mannsfeld, S. C. B.; Hu, G.; Feng, X.; Dong, R., Hierarchical conductive metal-organic framework films enabling efficient interfacial mass transfer. *Nature Communications* **2023**, 14 (1), 3850.
20. Ghosh, A.K. ; Sarkar, S. ; Tsuda, T. ; Chae, S. ; Knapp, A. ; Nitschke, M. ; Das, A. ; Wießner, S. ; König, T.A.F. ; Fery, A., Plasmonic photoresistor based on interconnected metal-semiconductor grating. *Advanced Functional Materials* **2023**, 33 (23), 2210172.
21. Singh, S. ; Kumar, L. ; Horechyy, A. ; Aftenieva, O. ; Mittal, M. ; Sanwaria, S. ; Srivastava, R. ; König, T.A.F. ; Fery, A. ; Nandan, B., Block copolymer-templated Au@CdSe core-satellite nanostructures with solvent-dependent optical properties. *Langmuir* **2023**, 39 (17), 6231-6239.
22. Hoffmann, M.; Schedel, C. A.; Mayer, M.; Rossner, C.; Scheele, M.; Fery, A., Heading toward Miniature Sensors: Electrical Conductance of Linearly Assembled Gold Nanorods*. Nanomaterials* **2023**, 13 (9), 1466.
23. Sychev, D. ; Schubotz, S. ; Besford, Q.A. ; Fery, A. ; Auernhammer, G., Critical analysis of adhesion work measurements from AFM-based techniques for soft contact. *Journal of Colloid and Interface Science* **2023**, 642, 216-226.
24. Weigel, N. ; Li, Y. ; Fery, A. ; Thiele, J., From microfluidics to hierarchical hydrogel materials. *Current Opinion in Colloid and Interface Science* **2023**, 64, 101673.
25. Aftenieva, O. ; Sudzius, M. ; Prudnikau, A. ; Adnan, M. ; Sarkar, S. ; Lesnyak, V. ; Leo, K. ; Fery, A. ; König, T.A.F., Lasing by template-assisted self-assembled quantum dots. *Advanced Optical Materials* **2023**, 11 (6), 2202226.
26. Aftenieva, O. ; Brunner, Julius ; Adnan, M. ; Sarkar, S. ; Fery, A. ; **Vaynzof, Y.** ; **König, T.A.F**., Directional amplified photoluminescence through large-area perovskite-based metasurfaces. *ACS Nano* **2023**, 17 (3), 2399-2410.
27. **Besford, Q. A**., Uhlmann, P., Fery, A., Spatially Resolving Polymer Brush Conformation: Opportunities Ahead. *Macromol. Chem. Phys.* **2023**, *224 (1)*, 2200180.
28. **Hofmaier, M**., Malanin, M., Bittrich, E., Lentz, S., Urban, B., Scheibel, T., Fery, A., **Müller, M**., β-Sheet Structure Formation within Binary Blends of Two Spider Silk Related Peptides. *Biomacromolecules* **2023**, 24 (2), 825-840.
29. Schletz, D., Breidung, M., **Fery, A.,** Validating and Utilizing Machine Learning Methods to Investigate the Impacts of Synthesis Parameters in Gold Nanoparticle Synthesis. *J. Phys. Chem. C* **2023**, 127 (2), 1117-1125.

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30. Weigel, N.; Li, Y.; Fery, A.; **Thiele, J.** From microfluidics to hierarchical hydrogel materials. *Current Opinion in Colloids and Interface Science* **2022**, 101673. DOI: 10.1016/j.cocis.2022.101673
31. **Müller, M.**; Všivcev, D.; Urban, B.; Wendler, F.; Schacher, F. H.; Fery, A. Photoacidity and Photodegradation within Polyelectrolyte/TiO2 Suspensions and Coatings. *ACS Applied Polymer Materials* **2022**, 4 (12), 9430-9440.
32. Muller, J.; Kumar, C.; Ghosh, A. K.; Gupta, V.; Tschopp, M.; Le Houerou, V.; Fery, A.; Decher, G.; **Pauly, M.**; **Felix O.** Spray-Deposited Anisotropic Assemblies of Plasmonic Nanowires for Direction-Sensitive Strain Measurement. *ACS Applied Materials & Interfaces* **2022**, 14 (48), 54073-54080.
33. Kumar, L. ; **Horechyy, A.** ; **Paturej, J.** ; Nandan, B. ; Klos, J. ; Sommer, J.-U. ; **Fery, A.** Encapsulation of nanoparticles into preformed block copolymer micelles driven by

competitive solvation: experimental studies and molecular dynamic simulations. *Macromolecules* **2022**, *55* (21), 9612-9626.

34. Wang, R. ; Schirmer, L. ; Wieduwilt, T. ; Förster, R. ; Schmidt, M. ; Freudenberg, U. ; Werner, C. ; Fery, A. ; **Rossner, C.** Colorimetric biosensors based on polymer/gold hybrid nanoparticles: topological effects of the polymer coating. *Langmuir* **2022**, *38*, 12325-12332.
35. Kim, J. ; Förster, R. ; Wieduwilt, T. ; Jang, B. ; Bürger, J. ; Gargiulo, J. ; Menezes, L. ; Rossner, C. ; Fery, A. ; Maier, S.A. ; **Schmidt, M.** Locally structured on-chip optofluidic hollow-core light cages for single nanoparticle tracking. *ACS Sensors* **2022**, *7*, 2951-2959.
36. Wang, R. ; Zimmermann, P. ; Schletz, D. ; Hoffmann, M. ; Probst, P.T. ; **Fery, A.**; **Nagel, J.**; **Rossner, C.** Nano meets macro: Furnishing the surface of polymer molds with gold-nanoparticle arrays. *Nano Select* **2022**, *3* (11), 1502-1508.
37. **Sarkar, S.**; Ghosh, A. K. ; Adnan, M. ; Aftenieva, O. ; Gupta, V. ; Fery, A. ; Joseph, J.**; König, T. A .F.** Enhanced figure of merit via hybridized guided-mode resonances in 2D-metallic photonic crystal slabs. *Advanced Optical Materials* **2022**, *10* (21), 2200954.
38. Hoffmann, M.; Schletz, D.; Steiner, A. M.; Wolf, D.; **Mayer, M.**; **Fery, A.** Conjugated polymer-gold-silver hybrid nanoparticles for plasmonic energy focusing. *Journal of Physical Chemistry C* **2022**, 126, 2475-2481.
39. Doering, U.; **Grigoriev, D.**; Riske, T.; Fery, A.; Böker, A. Nanodeformations of microcapsules: comparing the effects of cross-linking and nanoparticles. *RSC Advances* **2022**, 12, 24140-24145.
40. **Besford, Q.A.**; Uhlmann, P.; Fery, A. Spatially resolving polymer brush conformation: opportunities ahead. *Macromolecular Chemistry and Physics* **2022**, 224 (1), 2200180.
41. Lenjani, S.V.; Mayer, M.; Wang, R.; Dong, Y.; Fery, A.; Sommer, J.-U.; **Rossner, C.** Importance of electrostatic forces in supracolloidal self-assembly of polymer-functionalized gold nanorods. *Journal of Physical Chemistry C* **2022**, 126, 14017-14025.
42. Flemming, P.; Fery, A.; **Münch, A.S.**; **Uhlmann, P.** Does chain confinement affect thermo-responsiveness? - A comparative study of the LCST and induced UCST transition of tailored grafting-to polyelectrolyte brushes. *Macromolecules* **2022**, 55, 6775-6786.
43. **Besford, Q.A.**; Schubotz, S.; Chae, S.; Özdabak Sert, A.B.; Weiss, A.C.G.; Auernhammer, G.; Uhlmann, P.; Farinha, J.P.S.; **Fery, A.** Molecular transport within polymer brushes: a FRET view at aqueous interfaces. *Molecules* **2022**, 27, 3043.
44. Faghih, M.; **Karnaushenko, D.**; Besford, Q.A.; Becker, C.; Ravishankar, R.; Karnaushenko, D.D.; Cuniberti, G.; Fery, A.; **Schmidt, O. G.** Membranotronics: Bioinspired nonlinear ion transport with negative differential resistance based on elastomeric membrane system. *Advanced Functional Materials* **2022**, 32, 2200233.
45. Rizvi, M.H.; Wang, R.; Schubert, J.; Crumpler, W.D.; Rossner, C.; Oldenburg, A.L.; Fery, A.; **Tracy, J.B.** Magnetic alignment for plasmonic control of gold nanorods coated with iron oxide nanoparticles. *Advanced Materials* **2022**, *34* (40), 2203366.
46. Zimmermann, P.; Schlenstedt, K.; Schwarz, S.; Vehlow, D.; Blanke, M.; Fery, A.; **Nagel, J.** Green approach for manufacturing of polymer surface structures with micro cavities having robust chemical functionalized inner surfaces. *ACS Applied Polymer Materials* **2022**, 4, 5189-5198.
47. Kumar, A.; Nayak, K.; Münch, A.S.; Uhlmann, P.; Fery, A. ; **Tripathi, B.P.** Mussel primed grafted zwitterionic phosphorylcholine based superhydrophilic/underwater superoleophobic antifouling membranes for oil-water separation. *Separation and Purifaction Technology* **2022**, 290, 120887.

48. **Besford, Q.A.**; Merlitz, H.; Schubotz, S.; Yong, H.; Chae, S.; Schnepf, M. J.; Weiss, A.C.G.; Auernhammer, G.; Sommer, J.-U.; Uhlmann, P.; **Fery, A.** Mechanofluorescent polymer brush surfaces that spatially resolve surface solvation. *ACS Nano* **2022**, 16, 3383-3393.
49. **Günther, B.**, Kremser, T., Susoff, M., Formanek, P., Fery, A., Wießner, S., Ensuring patient safety by rational choice of color masterbatch for medical device applications—A case study investigating the properties of an ABS/SAN blend colored by different masterbatches based on styrenic polymers*. J. Appl. Polym. Sci.* **2022**, *139* (13), e51844.
50. V. Gupta, O. Aftenieva, P. T. Probst, S. Sarkar, A. M. Steiner, N. Vogel, A. Fery, **T. A. F. König**. Advanced Colloidal Sensors Enabled by an Out-of-Plane Lattice Resonance. *Adv. Photonics Res*. **2022**, 2200152.
51. A. F. R. M. Ramsperger, J. Jasinski, M. Völkl, T. Witzmann, M. Meinhart, V. Jérôme, W. P. Kretschmer, R. Freitag, J. Senker, A. Fery, H. Kress, T. Scheibel, **C. Laforsch**, Supposedly identical microplastic particles substantially differ in their material properties influencing particle-cell interactions and cellular responses. *Journal of Hazardous Materials* **2022**, 425, 127961.
52. T. Witzmann, A. F. R. M. Ramsperger, S. Wieland, C. Laforsch, H. Kress, **A. Fery**, **G. K. Auernhammer**. Repulsive Interactions of Eco-corona-Covered Microplastic Particles Quantitatively Follow Modeling of Polymer Brushes. *Langmuir* **2022** 38 (29), 8748-8756.

**2021**

53. Schultz, J., Schletz, D., Potapov, P., Steiner, A., Krehl, J., König, T., Mayer, M., Lubk, A., Fery, A., Nanoparticle Chains for Plasmonic Band Engineering. *Microscopy and Microanalysis* **2021**, 27(S1), 880-882.
54. C. Spengler, B. A. Glatz, E. Maikranz, M. Bischoff, M. A. Klatt, L. Santen, A. Fery, K. Jacobs, The adhesion capability of S. aureus cells is heterogeneously distributed over the cell envelope. bioRxiv 2021.01.05.425282; doi: https://doi.org/10.1101/2021.01.05.425282
55. **Y. Li**, M. J. Männel, N. Hauck, H. P. Patel, G. K. Auernhammer, S. Chae, A. Fery, **J. Li, J. Thiele**, Embedment of Quantum Dots and Biomolecules in a Dipeptide Hydrogel Formed In Situ Using Microfluidics. *Angewandte Chemie International Edition* **2021**, *60* (12), 6724-6732.
56. **S. Schubotz**, C. Honnigfort, S. Nazari, A. Fery, J.-U. Sommer, P. Uhlmann, B. Braunschweig, **G. K. Auernhammer**, Memory effects in polymer brushes showing co-nonsolvency effects. *Advances in Colloid and Interface Science* **2021**, *294*, 102442.
57. Schletz, D., Schultz, J., Potapov, P. L., Steiner, A. M., Krehl, J., König, T. A. F., Mayer, M., **Lubk, A., Fery, A**., Exploiting Combinatorics to Investigate Plasmonic Properties in Heterogeneous Ag-Au Nanosphere Chain Assemblies. *Adv. Optical Mater.* **2021**, *9*, 2001983.
58. Zhyhailo, M., **Horechyy, A**., Meier-Haack, J., Formanek, P., Malanin, M., Arnhold, K., Schneider, K., **Yevchuk, I., Fery, A**., Proton Conductive Membranes from Covalently Cross-Linked Poly(Acrylate)/Silica Interpenetrating Networks. *Macromol. Mater. Eng*. **2021**, *306*, 2000776.
59. **Rossner, C., König, T. A. F., Fery, A.**, Plasmonic Properties of Colloidal Assemblies. *Adv. Optical Mater.* **2021**, *9*, 2001869.
60. S. Singh, A. Horechyy, S. Yadav, P. Formanek, R. Hübner, R. K. Srivastava, S. Sapra, A. Fery, **B. Nandan**, Nanoparticle-Stabilized Perforated Lamellar Morphology in Block Copolymer/Quantum Dot Hybrids. *Macromolecules* **2021**, *54* (3), 1216-1223.

61. Ditte, K., Perez, J., Chae, S., Hambsch, M., Al-Hussein, M., Komber, H., Formanek, P., Mannsfeld, S. C. B., Fery, A., Kiriy, A., **Lissel, F**., Ultrasoft and High-Mobility Block Copolymers for Skin-Compatible Electronics. *Adv. Mater.* **2021**, *33*, 2005416.
62. **Quinn A. Besford**, Huaisong Yong, Holger Merlitz, Andrew J. Christofferson, Jens-Uwe Sommer, Petra Uhlmann, **Andreas Fery**, FRET-Integrated Polymer Brushes for Spatially Resolved Sensing of Changes in Polymer Conformation. *Angewandte Chemie International Edition* **2021**, *133* (30), 16736-16742.
63. **A. Knapp**, L. J. Nebel, M. Nitschke, O. Sander, **A. Fery**, Controlling line defects in wrinkling: a pathway towards hierarchical wrinkling structures. *Soft Matter* **2021**, *17*, 5384-5392.
64. Probst, P.T., Mayer, M., Gupta, V., Steiner, A. M., Zhou, Z., Auernhammer, G. K., **König, T.A.F., Fery, A**., Mechano-tunable chiral metasurfaces via colloidal assembly. *Nature Materials* **2021**, *20*, 1024–1028.
65. Kumar, L.; Singh, S**.; Horechyy, A.; Fery, A.; Nandan, B**. Block Copolymer Template-Directed Catalytic Systems: Recent Progress and Perspectives. *Membranes* **2021**, *11*, 318.
66. S. Singh, A. Raulo, A. Singh, M. Mittal, A. Horechyy, R. Hübner, P. Formanek, R. K. Srivastava, S. Sapra, A. Fery, **B. Nandan**, Enhanced Photoluminescence of Gold Nanoparticle-Quantum Dot Hybrids Confined in Hairy Polymer Nanofibers. *ChemNanoMat* **2021**, *7*, 831-841.
67. S. Shankar Banerjee, S. Mandal, I. Arief, R. Kanta Layek, A. Kumar Ghosh, K. Yang, J. Kumar, P. Formanek, A. Fery, G. Heinrich, **A. Das**, Designing Supertough and Ultrastretchable Liquid Metal-Embedded Natural Rubber Composites for Soft-Matter Engineering. *ACS Applied Materials & Interfaces* **2021** *13* (13), 15610-15620.
68. Sarkar, S., Gupta, V., Tsuda, T., Gour, J., Singh, A., Aftenieva, O., Steiner, A. M., Hoffmann, M., Kumar, S., Fery, A., Joseph, J., **König, T. A. F**., Plasmonic Charge Transfers in Large-Scale Metallic and Colloidal Photonic Crystal Slabs. *Adv. Funct. Mater.* **2021**, *31*, 2011099.
69. **S. Chae**, W. J. Choi, I. Fotev, E. Bittrich, P. Uhlmann, M. Schubert, D. Makarov, J. Wagner, A. Pashkin, **A. Fery**, Stretchable Thin Film Mechanical-Strain-Gated Switches and Logic Gate Functions Based on a Soft Tunneling Barrier. *Advanced Materials* **2021**, *33*, 2104769.
70. Flemming, P.; **Münch, A. S**.; Fery, A.; **Uhlmann, P**., Constrained thermoresponsive polymers – new insights into fundamentals and applications. *Beilstein J. Org. Chem.* **2021,** *17,* 2123–2163.
71. T. Tsuda, S. Chae, M. Al-Hussein, P. Formanek, **A. Fery**, Flexible Pressure Sensors Based on the Controlled Buckling of Doped Semiconducting Polymer Nanopillars. *ACS Applied Materials & Interfaces* **2021**, *13* (31), 37445-37454.
72. V. Gupta, S. Sarkar, O. Aftenieva, T. Tsuda, L. Kumar, D. Schletz, J. Schultz, A. Kiriy, A. Fery, N. Vogel, **T. A. F. König**, Nanoimprint Lithography Facilitated Plasmonic-Photonic Coupling for Enhanced Photoconductivity and Photocatalysis. *Adv. Funct. Mater.* **2021**, *31*, 2105054.
73. M. Jalali**, Z. Gao**, Y. Yu, R. Siavash Moakhar, Y. Ding, M. Zhuang, N. Zhou, T. König, A. Fery, S. Mahshid, **Z. Luo**, Synergistic enhancement of photoluminesent intensity in monolayer molybdenum disulfide embedded with plasmonic nanostructures for catalytic sensing. *2D Materials* **2021**, *8* (3), 035049.
74. A. K. Ghosh, S. Sarkar, L. J. Nebel, O. Aftenieva, V. Gupta, O. Sander, A. Das, J. Joseph, S. Wießner, **T. A. F. König, A. Fery**, Exploring Plasmonic Resonances Toward “Large-Scale” Flexible Optical Sensors with Deformation Stability. *Advanced Functional Materials* **2021**, *31*, 2101959.

75. N. Sun, S.-T. Zhang, F. Simon, A. M. Steiner, J. Schubert, Y. Du, Z. Qiao, **A. Fery, F. Lissel**, Poly (3-hexylthiophene) s Functionalized with N-Heterocyclic Carbenes as Robust and Conductive Ligands for the Stabilization of Gold Nanoparticles. *Angewandte Chemie International Edition* **2021**, *60 (8)*, 3912-3917.
76. M. Lê Anh, P. Potapov, D. Wolf, A. Lubk, B. Glatz, A. Fery, T. Doert, **M. Ruck**, Freestanding Nanolayers of a Wide-Gap Topological Insulator through Liquid-Phase Exfoliation. *Chem. Eur. J.* **2021**, *27*, 794.
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