

Friedrich C Simmel

List of Publications by Year in descending order

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170
papers

15,495
citations

25031

57
h-index

18128

120
g-index

209
all docs

209
docs citations

209
times ranked

12297
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | A DNA-fuelled molecular machine made of DNA. <i>Nature</i> , 2000, 406, 605-608. | 27.8 | 2,247 |
| 2 | DNA-based self-assembly of chiral plasmonic nanostructures with tailored optical response. <i>Nature</i> , 2012, 483, 311-314. | 27.8 | 1,868 |
| 3 | Single-Molecule Kinetics and Super-Resolution Microscopy by Fluorescence Imaging of Transient Binding on DNA Origami. <i>Nano Letters</i> , 2010, 10, 4756-4761. | 9.1 | 716 |
| 4 | Synthetic Lipid Membrane Channels Formed by Designed DNA Nanostructures. <i>Science</i> , 2012, 338, 932-936. | 12.6 | 659 |
| 5 | Nucleic Acid Based Molecular Devices. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 3124-3156. | 13.8 | 527 |
| 6 | Principles and Applications of Nucleic Acid Strand Displacement Reactions. <i>Chemical Reviews</i> , 2019, 119, 6326-6369. | 47.7 | 506 |
| 7 | DNA origami. <i>Nature Reviews Methods Primers</i> , 2021, 1, . | 21.2 | 382 |
| 8 | DNA Fuel for Free-Running Nanomachines. <i>Physical Review Letters</i> , 2003, 90, 118102. | 7.8 | 338 |
| 9 | A self-assembled nanoscale robotic arm controlled by electric fields. <i>Science</i> , 2018, 359, 296-301. | 12.6 | 306 |
| 10 | Distance Dependence of Single-Fluorophore Quenching by Gold Nanoparticles Studied on DNA Origami. <i>ACS Nano</i> , 2012, 6, 3189-3195. | 14.6 | 274 |
| 11 | DNA Origami as a Nanoscopic Ruler for Super-Resolution Microscopy. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 8870-8873. | 13.8 | 260 |
| 12 | A DNA-Based Machine That Can Cyclically Bind and Release Thrombin. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 3550-3553. | 13.8 | 247 |
| 13 | Anomalous Kondo Effect in a Quantum Dot at Nonzero Bias. <i>Physical Review Letters</i> , 1999, 83, 804-807. | 7.8 | 228 |
| 14 | DNA Nanodevices. <i>Small</i> , 2005, 1, 284-299. | 10.0 | 225 |
| 15 | Timing molecular motion and production with a synthetic transcriptional clock. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, E784-93. | 7.1 | 208 |
| 16 | Diversity in the dynamical behaviour of a compartmentalized programmable biochemical oscillator. <i>Nature Chemistry</i> , 2014, 6, 295-302. | 13.6 | 201 |
| 17 | Switching the Conformation of a DNA Molecule with a Chemical Oscillator. <i>Nano Letters</i> , 2005, 5, 1894-1898. | 9.1 | 200 |
| 18 | Solving mazes with single-molecule DNA navigators. <i>Nature Materials</i> , 2019, 18, 273-279. | 27.5 | 190 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Quantitative Analysis of Single Particle Trajectories: Mean Maximal Excursion Method. Biophysical Journal, 2010, 98, 1364-1372. | 0.5 | 188 |
| 20 | Molecular transport through large-diameter DNA nanopores. Nature Communications, 2016, 7, 12787. | 12.8 | 160 |
| 21 | Signalling and differentiation in emulsion-based multi-compartmentalized in vitro gene circuits. Nature Chemistry, 2019, 11, 32-39. | 13.6 | 160 |
| 22 | Surface-Assisted Large-Scale Ordering of DNA Origami Tiles. Angewandte Chemie - International Edition, 2014, 53, 7665-7668. | 13.8 | 152 |
| 23 | Membrane-Assisted Growth of DNA Origami Nanostructure Arrays. ACS Nano, 2015, 9, 3530-3539. | 14.6 | 151 |
| 24 | Controlled Trapping and Release of Quantum Dots in a DNA-Switchable Hydrogel. Small, 2007, 3, 1688-1693. | 10.0 | 148 |
| 25 | Periodic DNA Nanotemplates Synthesized by Rolling Circle Amplification. Nano Letters, 2005, 5, 719-722. | 9.1 | 146 |
| 26 | DNA Nanostructures Interacting with Lipid Bilayer Membranes. Accounts of Chemical Research, 2014, 47, 1807-1815. | 15.6 | 142 |
| 27 | DNA-based nanodevices. Nano Today, 2007, 2, 36-41. | 11.9 | 131 |
| 28 | A large size-selective DNA nanopore with sensing applications. Nature Communications, 2019, 10, 5655. | 12.8 | 126 |
| 29 | Isothermal Assembly of DNA Origami Structures Using Denaturing Agents. Journal of the American Chemical Society, 2008, 130, 10062-10063. | 13.7 | 123 |
| 30 | Polyaniline nanowire synthesis templated by DNA. Nanotechnology, 2004, 15, 1524-1529. | 2.6 | 117 |
| 31 | A DNA-based molecular device switchable between three distinct mechanical states. Applied Physics Letters, 2002, 80, 883-885. | 3.3 | 106 |
| 32 | Using DNA to construct and power a nanoactuator. Physical Review E, 2001, 63, 041913. | 2.1 | 104 |
| 33 | A Surface-Bound DNA Switch Driven by a Chemical Oscillator. Angewandte Chemie - International Edition, 2006, 45, 5007-5010. | 13.8 | 103 |
| 34 | Long-range movement of large mechanically interlocked DNA nanostructures. Nature Communications, 2016, 7, 12414. | 12.8 | 98 |
| 35 | Hydrophobic Actuation of a DNA Origami Bilayer Structure. Angewandte Chemie - International Edition, 2014, 53, 4236-4239. | 13.8 | 97 |
| 36 | Statistics of conductance oscillations of a quantum dot in the Coulomb-blockade regime. Europhysics Letters, 1997, 38, 123-128. | 2.0 | 96 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 37 | Switching the activity of Cas12a using guide RNA strand displacement circuits. <i>Nature Communications</i> , 2019, 10, 2092. | 12.8 | 95 |
| 38 | Three-dimensional Nanoconstruction with DNA. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 5884-5887. | 13.8 | 93 |
| 39 | De novo-designed translation-repressing riboregulators for multi-input cellular logic. <i>Nature Chemical Biology</i> , 2019, 15, 1173-1182. | 8.0 | 90 |
| 40 | Transcriptional Control of DNA-Based Nanomachines. <i>Nano Letters</i> , 2004, 4, 689-691. | 9.1 | 85 |
| 41 | Towards biomedical applications for nucleic acid nanodevices. <i>Nanomedicine</i> , 2007, 2, 817-830. | 3.3 | 85 |
| 42 | DNA-based assembly lines and nanofactories. <i>Current Opinion in Biotechnology</i> , 2012, 23, 516-521. | 6.6 | 85 |
| 43 | DNA origami cryptography for secure communication. <i>Nature Communications</i> , 2019, 10, 5469. | 12.8 | 84 |
| 44 | Statistics of the Coulomb-blockade peak spacings of a silicon quantum dot. <i>Physical Review B</i> , 1999, 59, R10441-R10444. | 3.2 | 83 |
| 45 | Chemical communication between bacteria and cell-free gene expression systems within linear chains of emulsion droplets. <i>Integrative Biology (United Kingdom)</i> , 2016, 8, 564-570. | 1.3 | 83 |
| 46 | Robustness of Localized DNA Strand Displacement Cascades. <i>ACS Nano</i> , 2014, 8, 8487-8496. | 14.6 | 81 |
| 47 | Single-Pair FRET Characterization of DNA Tweezers. <i>Nano Letters</i> , 2006, 6, 2814-2820. | 9.1 | 78 |
| 48 | A modular DNA signal translator for the controlled release of a protein by an aptamer. <i>Nucleic Acids Research</i> , 2006, 34, 1581-1587. | 14.5 | 78 |
| 49 | Communication and Computation by Bacteria Compartmentalized within Microemulsion Droplets. <i>Journal of the American Chemical Society</i> , 2014, 136, 72-75. | 13.7 | 78 |
| 50 | Towards synthetic cells using peptide-based reaction compartments. <i>Nature Communications</i> , 2018, 9, 3862. | 12.8 | 75 |
| 51 | Chains of semiconductor nanoparticles templated on DNA. <i>Applied Physics Letters</i> , 2004, 85, 633-635. | 3.3 | 72 |
| 52 | Quantum interference in a one-dimensional silicon nanowire. <i>Physical Review B</i> , 2003, 68, . | 3.2 | 69 |
| 53 | Structural DNA Nanotechnology: From Bases to Bricks, From Structure to Function. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 1994-2005. | 4.6 | 63 |
| 54 | Artificial Gel-based Organelles for Spatial Organization of Cell-free Gene Expression Reactions. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 17245-17248. | 13.8 | 63 |

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|----|--|------|-----------|
| 55 | Electrotransfection of Polyamine Folded DNA Origami Structures. <i>Nano Letters</i> , 2016, 16, 6683-6690. | 9.1 | 61 |
| 56 | Fluorescent Nanocrystals as Colloidal Probes in Complex Fluids Measured by Fluorescence Correlation Spectroscopy. <i>Small</i> , 2005, 1, 997-1003. | 10.0 | 60 |
| 57 | Coulomb blockade in silicon nanostructures. <i>Progress in Quantum Electronics</i> , 2001, 25, 97-138. | 7.0 | 59 |
| 58 | DNA origami-based nanoribbons: assembly, length distribution, and twist. <i>Nanotechnology</i> , 2011, 22, 275301. | 2.6 | 59 |
| 59 | Comparison of four different particle sizing methods for siRNA polyplex characterization. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2013, 84, 255-264. | 4.3 | 55 |
| 60 | Josephson junctions defined by a nanoplough. <i>Applied Physics Letters</i> , 1998, 73, 2051-2053. | 3.3 | 54 |
| 61 | Single Molecule Characterization of DNA Binding and Strand Displacement Reactions on Lithographic DNA Origami Microarrays. <i>Nano Letters</i> , 2014, 14, 1627-1633. | 9.1 | 54 |
| 62 | Electrophoretic Time-of-Flight Measurements of Single DNA Molecules with Two Stacked Nanopores. <i>Nano Letters</i> , 2011, 11, 5002-5007. | 9.1 | 49 |
| 63 | Diffusive Transport of Molecular Cargo Tethered to a DNA Origami Platform. <i>Nano Letters</i> , 2015, 15, 2693-2699. | 9.1 | 46 |
| 64 | Using Gene Regulation to Program DNA-Based Molecular Devices. <i>Small</i> , 2005, 1, 709-712. | 10.0 | 45 |
| 65 | Barcoded DNA origami structures for multiplexed optimization and enrichment of DNA-based protein-binding cavities. <i>Nature Chemistry</i> , 2020, 12, 852-859. | 13.6 | 45 |
| 66 | A low-cost fluorescence reader for in vitro transcription and nucleic acid detection with Cas13a. <i>PLoS ONE</i> , 2019, 14, e0220091. | 2.5 | 44 |
| 67 | DNA Origami as a Nanoscopic Ruler For Super-Resolution Microscopy. <i>Biophysical Journal</i> , 2010, 98, 184a. | 0.5 | 43 |
| 68 | Processive Motion of Bipedal DNA Walkers. <i>ChemPhysChem</i> , 2009, 10, 2593-2597. | 2.1 | 42 |
| 69 | Establishing Communication Between Artificial Cells. <i>Chemistry - A European Journal</i> , 2019, 25, 12659-12670. | 3.3 | 42 |
| 70 | Self-Assembled Active Plasmonic Waveguide with a Peptide-Based Thermomechanical Switch. <i>ACS Nano</i> , 2016, 10, 11377-11384. | 14.6 | 40 |
| 71 | Orthogonal Protein Assembly on DNA Nanostructures Using Relaxases. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 4348-4352. | 13.8 | 40 |
| 72 | On-Chip Functionalization of Carbon Nanotubes with Photosystem I. <i>Journal of the American Chemical Society</i> , 2010, 132, 2872-2873. | 13.7 | 37 |

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|----|--|------|-----------|
| 73 | The optoelectronic properties of a photosystem l  carbon nanotube hybrid system. <i>Nanotechnology</i> , 2009, 20, 345701. | 2.6 | 34 |
| 74 | Nanopores Suggest a Negligible Influence of CpG Methylation on Nucleosome Packaging and Stability. <i>Nano Letters</i> , 2015, 15, 783-790. | 9.1 | 32 |
| 75 | Gene Expression on DNA Biochips Patterned with Strand  Displacement Lithography. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 4783-4786. | 13.8 | 27 |
| 76 | Filamentation and restoration of normal growth in <i>Escherichia coli</i> using a combined CRISPRi sgRNA/antisense RNA approach. <i>PLoS ONE</i> , 2018, 13, e0198058. | 2.5 | 27 |
| 77 | Design Variations for an Aptamer-Based DNA Nanodevice. <i>Journal of Biomedical Nanotechnology</i> , 2005, 1, 96-101. | 1.1 | 26 |
| 78 | From DNA nanotechnology to synthetic biology. <i>HFSP Journal</i> , 2008, 2, 99-109. | 2.5 | 25 |
| 79 | DNA condensation in one dimension. <i>Nature Nanotechnology</i> , 2016, 11, 1076-1081. | 31.5 | 24 |
| 80 | Optimized Assembly of a Multifunctional RNA-Protein Nanostructure in a Cell-Free Gene Expression System. <i>Nano Letters</i> , 2018, 18, 2650-2657. | 9.1 | 24 |
| 81 | Assembly and melting of DNA nanotubes from single-sequence tiles. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 034112. | 1.8 | 23 |
| 82 | Nanopore Force Spectroscopy of Aptamer  Ligand Complexes. <i>Biophysical Journal</i> , 2013, 105, 1199-1207. | 0.5 | 23 |
| 83 | A synthetic tubular molecular transport system. <i>Nature Communications</i> , 2021, 12, 4393. | 12.8 | 23 |
| 84 | Cell-free production of personalized therapeutic phages targeting multidrug-resistant bacteria. <i>Cell Chemical Biology</i> , 2022, 29, 1434-1445.e7. | 5.2 | 23 |
| 85 | Programming the Dynamics of Biochemical Reaction Networks. <i>ACS Nano</i> , 2013, 7, 6-10. | 14.6 | 22 |
| 86 | A Compact DNA Cube with Side Length 10 nm. <i>Small</i> , 2015, 11, 5200-5205. | 10.0 | 22 |
| 87 | Single Cell Analysis of a Bacterial Sender-Receiver System. <i>PLoS ONE</i> , 2016, 11, e0145829. | 2.5 | 21 |
| 88 | Nanoscale imaging in DNA nanotechnology. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2012, 4, 66-81. | 6.1 | 20 |
| 89 | Enhanced Efficiency of an Enzyme Cascade on DNA-Activated Silica Surfaces. <i>Langmuir</i> , 2018, 34, 14780-14786. | 3.5 | 20 |
| 90 | Programming Diffusion and Localization of DNA Signals in 3D  Printed DNA  Functionalized Hydrogels. <i>Small</i> , 2020, 16, e2001815. | 10.0 | 20 |

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|-----|---|------|-----------|
| 91 | Nanopore Translocation and Force Spectroscopy Experiments in Microemulsion Droplets. <i>Small</i> , 2010, 6, 190-194. | 10.0 | 19 |
| 92 | Self-organizing materials built with DNA. <i>MRS Bulletin</i> , 2017, 42, 913-919. | 3.5 | 19 |
| 93 | Evaluation of an <i>E. coli</i> Cell Extract Prepared by Lysozyme-Assisted Sonication via Gene Expression, Phage Assembly and Proteomics. <i>ChemBioChem</i> , 2021, 22, 2805-2813. | 2.6 | 19 |
| 94 | Controlling DNA Polymerization with a Switchable Aptamer. <i>ChemBioChem</i> , 2007, 8, 1662-1666. | 2.6 | 18 |
| 95 | Quantitative Analysis of the Nanopore Translocation Dynamics of Simple Structured Polynucleotides. <i>Biophysical Journal</i> , 2012, 102, 85-95. | 0.5 | 18 |
| 96 | Controlling Gene Expression in Mammalian Cells Using Multiplexed Conditional Guide RNAs for Cas12a**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 23894-23902. | 13.8 | 18 |
| 97 | Towards molecular-scale electronics and biomolecular self-assembly. <i>Superlattices and Microstructures</i> , 2003, 33, 369-379. | 3.1 | 17 |
| 98 | Detection of lipid bilayer and peptide pore formation at gigahertz frequencies. <i>Applied Physics Letters</i> , 2006, 88, 013902. | 3.3 | 17 |
| 99 | Out-of-Plane Aptamer Functionalization of RNA Three-Helix Tiles. <i>Nanomaterials</i> , 2019, 9, 507. | 4.1 | 17 |
| 100 | A DNA Nanorobot Uprises against Cancer. <i>Trends in Molecular Medicine</i> , 2018, 24, 591-593. | 6.7 | 16 |
| 101 | Periodic Operation of a Dynamic DNA Origami Structure Utilizing the Hydrophilic-Hydrophobic Phase-Transition of Stimulus-Sensitive Polypeptides. <i>Small</i> , 2019, 15, 1903541. | 10.0 | 16 |
| 102 | Growth of Giant Peptide Vesicles Driven by Compartmentalized Transcription-Translation Activity. <i>Chemistry - A European Journal</i> , 2020, 26, 17356-17360. | 3.3 | 16 |
| 103 | Controlling Chirality across Length Scales using DNA. <i>Small</i> , 2019, 15, e1805419. | 10.0 | 15 |
| 104 | Synthetic cell-based materials extract positional information from morphogen gradients. <i>Science Advances</i> , 2022, 8, eabl9228. | 10.3 | 15 |
| 105 | Determination of DNA Melting Temperatures in Diffusion-Generated Chemical Gradients. <i>Analytical Chemistry</i> , 2007, 79, 5212-5216. | 6.5 | 14 |
| 106 | Bacterial Growth, Communication, and Guided Chemotaxis in 3D-Bioprinted Hydrogel Environments. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 15871-15880. | 8.0 | 14 |
| 107 | Spacing and width of Coulomb blockade peaks in a silicon quantum dot. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 6, 382-387. | 2.7 | 13 |
| 108 | Single Cell Characterization of a Synthetic Bacterial Clock with a Hybrid Feedback Loop Containing dCas9-sgRNA. <i>ACS Synthetic Biology</i> , 2020, 9, 3377-3387. | 3.8 | 13 |

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|-----|--|------|-----------|
| 109 | Self-Propulsion Strategies for Artificial Cell-Like Compartments. <i>Nanomaterials</i> , 2019, 9, 1680. | 4.1 | 12 |
| 110 | Genetically Encoded Membranes for Bottom-Up Biology. <i>ChemSystemsChem</i> , 2019, 1, e1900016. | 2.6 | 11 |
| 111 | Emergence of Colloidal Patterns in ac Electric Fields. <i>Physical Review Letters</i> , 2022, 128, 058002. | 7.8 | 11 |
| 112 | Microwave spectroscopy on a double quantum dot with an on-chip Josephson oscillator. <i>New Journal of Physics</i> , 2000, 2, 2-2. | 2.9 | 10 |
| 113 | Operation Kinetics of a DNA-Based Molecular Switch. <i>Journal of Nanoscience and Nanotechnology</i> , 2002, 2, 383-390. | 0.9 | 10 |
| 114 | Kinetics of protein-release by an aptamer-based DNA nanodevice. <i>European Physical Journal E</i> , 2007, 22, 33-40. | 1.6 | 10 |
| 115 | Sequence-dependent unfolding kinetics of DNA hairpins studied by nanopore force spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 454119. | 1.8 | 10 |
| 116 | Partitioning Variability of a Compartmentalized <i>In Vitro</i> Transcriptional Thresholding Circuit. <i>ACS Synthetic Biology</i> , 2015, 4, 1136-1143. | 3.8 | 10 |
| 117 | Preparative refolding of small monomeric outer membrane proteins. <i>Protein Expression and Purification</i> , 2017, 132, 171-181. | 1.3 | 10 |
| 118 | Synthetic organelles. <i>Emerging Topics in Life Sciences</i> , 2019, 3, 587-595. | 2.6 | 10 |
| 119 | Statistical measures for eigenfunctions of nonseparable quantum billiard systems. <i>Physica D: Nonlinear Phenomena</i> , 1996, 97, 517-530. | 2.8 | 9 |
| 120 | Nano-ploughed Josephson junctions as on-chip radiation sources. <i>Superlattices and Microstructures</i> , 1999, 25, 785-795. | 3.1 | 9 |
| 121 | Bacterial computing with engineered populations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015, 373, 20140218. | 3.4 | 9 |
| 122 | Synthetic in vitro transcription circuits. <i>Transcription</i> , 2012, 3, 87-91. | 3.1 | 8 |
| 123 | Probing DNA-Lipid Membrane Interactions with a Lipopeptide Nanopore. <i>ACS Nano</i> , 2012, 6, 3356-3363. | 14.6 | 8 |
| 124 | Building a Synthetic Transcriptional Oscillator. <i>Methods in Molecular Biology</i> , 2016, 1342, 185-199. | 0.9 | 8 |
| 125 | Riboswitch-inspired toehold riboregulators for gene regulation in <i>Escherichia coli</i> . <i>Nucleic Acids Research</i> , 2022, 50, 4784-4798. | 14.5 | 8 |
| 126 | Complex dynamics in a synchronized cell-free genetic clock. <i>Nature Communications</i> , 2022, 13, . | 12.8 | 8 |

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|-----|--|------|-----------|
| 127 | Avoided crossings: Curvature distribution and behavior of eigenfunctions of pseudointegrable and chaotic billiards. <i>Physical Review E</i> , 1995, 51, 5435-5441. | 2.1 | 7 |
| 128 | Orthogonale Assemblierung von Proteinen auf DNA-Nanostrukturen mithilfe von Relaxasen. <i>Angewandte Chemie</i> , 2016, 128, 4421-4425. | 2.0 | 7 |
| 129 | Towards quantification and differentiation of protein aggregates and silicone oil droplets in the low micrometer and submicrometer size range by using oil-immersion flow imaging microscopy and convolutional neural networks. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 169, 97-102. | 4.3 | 7 |
| 130 | Transcriptional Interference in Toehold Switch-Based RNA Circuits. <i>ACS Synthetic Biology</i> , 2022, 11, 1735-1745. | 3.8 | 7 |
| 131 | Voltage-controlled insertion of single σ -hemolysin and <i>Mycobacterium smegmatis</i> nanopores into lipid bilayer membranes. <i>Applied Physics Letters</i> , 2011, 98, . | 3.3 | 6 |
| 132 | Künstliche, gelbasierte Organellen für die räumliche Organisation von zellfreien Genexpressionsreaktionen. <i>Angewandte Chemie</i> , 2018, 130, 17491-17495. | 2.0 | 6 |
| 133 | Small Antisense DNA-Based Gene Silencing Enables Cell-Free Bacteriophage Manipulation and Genome Replication. <i>ACS Synthetic Biology</i> , 2021, 10, 459-465. | 3.8 | 6 |
| 134 | Single DNA Origami Detection by Nanoimpact Electrochemistry. <i>ChemElectroChem</i> , 2022, 9, . | 3.4 | 6 |
| 135 | DNA origami – art, science, and engineering. <i>Frontiers in Life Science: Frontiers of Interdisciplinary Research in the Life Sciences</i> , 2012, 6, 3-9. | 1.1 | 5 |
| 136 | DNA-Nanotechnologie. <i>Chemie in Unserer Zeit</i> , 2013, 47, 164-173. | 0.1 | 5 |
| 137 | Probing whole cell currents in high-frequency electrical fields: Identification of thermal effects. <i>Biosensors and Bioelectronics</i> , 2008, 23, 872-878. | 10.1 | 4 |
| 138 | Wiring-up ion channels. <i>Nature Physics</i> , 2009, 5, 783-784. | 16.7 | 4 |
| 139 | Synthesis and Application of Functional Nucleic Acids. <i>Journal of Nucleic Acids</i> , 2011, 2011, 1-2. | 1.2 | 4 |
| 140 | Crowded genes perform differently. <i>Nature Nanotechnology</i> , 2013, 8, 545-546. | 31.5 | 4 |
| 141 | Synthetic Lipid Membrane Channels formed by Designed DNA Nanostructures. <i>Biophysical Journal</i> , 2013, 104, 545a. | 0.5 | 4 |
| 142 | Deadly DNA. <i>Nature Chemistry</i> , 2015, 7, 17-18. | 13.6 | 4 |
| 143 | Nanostructure evolution. <i>Nature Materials</i> , 2017, 16, 974-976. | 27.5 | 4 |
| 144 | Genexpression auf DNA-Biochips: Strukturierung durch Strangverdrängungs-Lithographie. <i>Angewandte Chemie</i> , 2018, 130, 4873-4876. | 2.0 | 4 |

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|-----|--|-----|-----------|
| 145 | Assembly and Microscopic Characterization of DNA Origami Structures. <i>Advances in Experimental Medicine and Biology</i> , 2012, 733, 87-96. | 1.6 | 3 |
| 146 | Kontrolle von Genexpression in Säugetierzellen mithilfe von parallel schaltbaren Guide-RNAs für Cas12a**. <i>Angewandte Chemie</i> , 0, , . | 2.0 | 2 |
| 147 | Operation of a Purified DNA Nanoactuator. <i>Lecture Notes in Computer Science</i> , 2002, , 248-257. | 1.3 | 2 |
| 148 | Tiny robots made from biomolecules. <i>Europhysics News</i> , 2022, 53, 24-27. | 0.3 | 2 |
| 149 | <title>DNA molecular motors</title>. , 2001, , . | | 1 |
| 150 | A pore-Cavity-Pore Device to Trap and Investigate Single Nano-Scale Objects in Femto-Liter Compartments: Confined Diffusion and Narrow Escape. <i>Biophysical Journal</i> , 2011, 100, 522a. | 0.5 | 1 |
| 151 | Molecular Transport through Large Diameter DNA Origami Channels. <i>Biophysical Journal</i> , 2017, 112, 416a. | 0.5 | 1 |
| 152 | In Vesiculo Synthesis of Peptide Membrane Precursors for Autonomous Vesicle Growth. <i>Journal of Visualized Experiments</i> , 2019, , . | 0.3 | 1 |
| 153 | Genetically Encoded Membranes for Bottom-Up Biology. <i>ChemSystemsChem</i> , 2019, 1, e1900055. | 2.6 | 1 |
| 154 | Protocols for Self-Assembly and Imaging of DNA Nanostructures. <i>Methods in Molecular Biology</i> , 2011, 749, 13-32. | 0.9 | 1 |
| 155 | Controlled Release of Thrombin Using Aptamer-Based Nanodevices. <i>Advances in Science and Technology</i> , 2006, 53, 116-121. | 0.2 | 0 |
| 156 | Towards &i>In Vivo&i> Nanomachines. <i>Advances in Science and Technology</i> , 0, , . | 0.2 | 0 |
| 157 | Artificial molecular switches made from DNA. <i>Nucleic Acids Symposium Series</i> , 2008, 52, 17-18. | 0.3 | 0 |
| 158 | Nanopore Translocation Experiments in Microemulsion Droplets. <i>Biophysical Journal</i> , 2010, 98, 600a-601a. | 0.5 | 0 |
| 159 | DNA Nanostructures for Electrophysiology. <i>Biophysical Journal</i> , 2013, 104, 517a-518a. | 0.5 | 0 |
| 160 | Nanopore Force Spectroscopy on Nucleic Acid Structures & their Target Complexes using Biological and Synthetic Ion Channels. <i>Biophysical Journal</i> , 2013, 104, 521a. | 0.5 | 0 |
| 161 | Real Time Actuation of a DNA Based Robotic Arm. <i>Biophysical Journal</i> , 2018, 114, 693a. | 0.5 | 0 |
| 162 | Functional Surface-immobilization of Genes Using Multistep Strand Displacement Lithography. <i>Journal of Visualized Experiments</i> , 2018, , . | 0.3 | 0 |

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|-----|---|-----|-----------|
| 163 | Frontispiece: Establishing Communication Between Artificial Cells. Chemistry - A European Journal, 2019, 25, . | 3.3 | 0 |
| 164 | Biomedical Applications for Nucleic Acid Nanodevices. , 2013, , 329-348. | | 0 |
| 165 | Photon-induced transport through mesoscopic structures using nano-ploughed Josephson junctions. , 1999, , . | | 0 |
| 166 | Artificial Organelles. , 2022, , 1-3. | | 0 |
| 167 | A low-cost fluorescence reader for in vitro transcription and nucleic acid detection with Cas13a. , 2019, 14, e0220091. | | 0 |
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