## Ulrich F Keyser

## List of Publications by Citations

Source: https://exaly.com/author-pdf/8707345/ulrich-f-keyser-publications-by-citations.pdf

Version: 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

189 9,326 51 91 h-index g-index citations papers 11,082 6.5 8.5 236 L-index avg, IF ext. citations ext. papers

| #   | Paper   | IF      | Citations |
|-----|---|---------|-----------|
| 189 | Salt dependence of ion transport and DNA translocation through solid-state nanopores. <i>Nano Letters</i> , <b>2006</b> , 6, 89-95                            | 11.5    | 625       |
| 188 | Direct force measurements on DNA in a solid-state nanopore. <i>Nature Physics</i> , <b>2006</b> , 2, 473-477  | 16.2    | 511       |
| 187 | Real-time deformability cytometry: on-the-fly cell mechanical phenotyping. <i>Nature Methods</i> , <b>2015</b> , 12, 199-202, 4 p following 202               | 21.6    | 382       |
| 186 | DNA origami based assembly of gold nanoparticle dimers for surface-enhanced Raman scattering. <i>Nature Communications</i> , <b>2014</b> , 5, 3448            | 17.4    | 316       |
| 185 | Origin of the electrophoretic force on DNA in solid-state nanopores. <i>Nature Physics</i> , <b>2009</b> , 5, 347-351   | 16.2    | 287       |
| 184 | Noise in solid-state nanopores. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 417-21            | 11.5    | 265       |
| 183 | Bacterial metabolite indole modulates incretin secretion from intestinal enteroendocrine L cells. <i>Cell Reports</i> , <b>2014</b> , 9, 1202-8               | 10.6    | 257       |
| 182 | DNA origami nanopores. <i>Nano Letters</i> , <b>2012</b> , 12, 512-7  | 11.5    | 235       |
| 181 | Single protein molecule detection by glass nanopores. <i>ACS Nano</i> , <b>2013</b> , 7, 4129-34  | 16.7    | 200       |
| 180 | Digitally encoded DNA nanostructures for multiplexed, single-molecule protein sensing with nanopores. <i>Nature Nanotechnology</i> , <b>2016</b> , 11, 645-51 | 28.7    | 180       |
| 179 | Detecting DNA folding with nanocapillaries. <i>Nano Letters</i> , <b>2010</b> , 10, 2493-7  | 11.5    | 155       |
| 178 | Lipid-bilayer-spanning DNA nanopores with a bifunctional porphyrin anchor. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 12069-72      | 16.4    | 151       |
| 177 | Viscoelastic properties of differentiating blood cells are fate- and function-dependent. <i>PLoS ONE</i> , <b>2012</b> , 7, e45237                            | 3.7     | 133       |
| 176 | Controlling molecular transport through nanopores. <i>Journal of the Royal Society Interface</i> , <b>2011</b> , 8, 1369                                      | 9-47.88 | 132       |
| 175 | Specific protein detection using designed DNA carriers and nanopores. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 2035-41            | 16.4    | 130       |
| 174 | Large-Conductance Transmembrane Porin Made from DNA Origami. ACS Nano, 2016, 10, 8207-14  | 16.7    | 124       |
| 173 | Kondo effect in a few-electron quantum ring. <i>Physical Review Letters</i> , <b>2003</b> , 90, 196601  | 7.4     | 118       |

| 172 | Auxetic nuclei in embryonic stem cells exiting pluripotency. <i>Nature Materials</i> , <b>2014</b> , 13, 638-644   | 27   | 113 |
|-----|--|------|-----|
| 171 | Optical tweezers for force measurements on DNA in nanopores. <i>Review of Scientific Instruments</i> , <b>2006</b> , 77, 105105  | 1.7  | 110 |
| 170 | Nanobubbles in solid-state nanopores. <i>Physical Review Letters</i> , <b>2006</b> , 97, 088101  | 7.4  | 106 |
| 169 | Suppressed Quenching and Strong-Coupling of Purcell-Enhanced Single-Molecule Emission in Plasmonic Nanocavities. <i>ACS Photonics</i> , <b>2018</b> , 5, 186-191                   | 6.3  | 99  |
| 168 | DNA origami nanopores for controlling DNA translocation. ACS Nano, 2013, 7, 6024-30  | 16.7 | 99  |
| 167 | Indole prevents Escherichia coli cell division by modulating membrane potential. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2012</b> , 1818, 1590-4                  | 3.8  | 97  |
| 166 | Mapping Nanoscale Hotspots with Single-Molecule Emitters Assembled into Plasmonic Nanocavities Using DNA Origami. <i>Nano Letters</i> , <b>2018</b> , 18, 405-411                  | 11.5 | 97  |
| 165 | Protein reconstitution into freestanding planar lipid membranes for electrophysiological characterization. <i>Nature Protocols</i> , <b>2015</b> , 10, 188-98                      | 18.8 | 96  |
| 164 | DNA-Tile Structures Induce Ionic Currents through Lipid Membranes. <i>Nano Letters</i> , <b>2015</b> , 15, 3134-8  | 11.5 | 93  |
| 163 | Bilayer-spanning DNA nanopores with voltage-switching between open and closed state. <i>ACS Nano</i> , <b>2015</b> , 9, 1117-26  | 16.7 | 90  |
| 162 | Ion Channels Made from a Single Membrane-Spanning DNA Duplex. Nano Letters, 2016, 16, 4665-9   | 11.5 | 87  |
| 161 | Forces between single pairs of charged colloids in aqueous salt solutions. <i>Physical Review E</i> , <b>2007</b> , 76, 031403   | 2.4  | 84  |
| 160 | Quantum electrodynamics at room temperature coupling a single vibrating molecule with a plasmonic nanocavity. <i>Nature Communications</i> , <b>2019</b> , 10, 1049                | 17.4 | 80  |
| 159 | Programming Light-Harvesting Efficiency Using DNA Origami. <i>Nano Letters</i> , <b>2016</b> , 16, 2369-74   | 11.5 | 80  |
| 158 | Camera-based three-dimensional real-time particle tracking at kHz rates and figstrfn accuracy. <i>Nature Communications</i> , <b>2015</b> , 6, 5885                                | 17.4 | 79  |
| 157 | Fabrication of a single-electron transistor by current-controlled local oxidation of a two-dimensional electron system. <i>Applied Physics Letters</i> , <b>2000</b> , 76, 457-459 | 3.4  | 76  |
| 156 | Quantifying Nanomolar Protein Concentrations Using Designed DNA Carriers and Solid-State Nanopores. <i>Nano Letters</i> , <b>2016</b> , 16, 3557-62                                | 11.5 | 76  |
| 155 | Extrinsic Cation Selectivity of 2D Membranes. ACS Nano, 2017, 11, 1340-1346  | 16.7 | 71  |

| 154 | Aharonov[Bohm oscillations of a tuneable quantum ring. <i>Semiconductor Science and Technology</i> , <b>2002</b> , 17, L22-L24                        | 1.8             | 71   |
|-----|---|-----------------|------|
| 153 | Ionic conductivity, structural deformation, and programmable anisotropy of DNA origami in electric field. <i>ACS Nano</i> , <b>2015</b> , 9, 1420-33  | 16.7            | 69   |
| 152 | A synthetic enzyme built from DNA flips 10 lipids per second in biological membranes. <i>Nature Communications</i> , <b>2018</b> , 9, 2426            | 17.4            | 68   |
| 151 | Nanopore tomography of a laser focus. <i>Nano Letters</i> , <b>2005</b> , 5, 2253-6   | 11.5            | 66   |
| 150 | Gap-Dependent Coupling of AgAu Nanoparticle Heterodimers Using DNA Origami-Based Self-Assembly. <i>ACS Photonics</i> , <b>2016</b> , 3, 1589-1595     | 6.3             | 66   |
| 149 | Indole transport across Escherichia coli membranes. <i>Journal of Bacteriology</i> , <b>2011</b> , 193, 1793-8  | 3.5             | 63   |
| 148 | Phase-state dependent current fluctuations in pure lipid membranes. <i>Biophysical Journal</i> , <b>2009</b> , 96, 459                                | 2279            | 62   |
| 147 | DNA origami nanopores: developments, challenges and perspectives. <i>Nanoscale</i> , <b>2014</b> , 6, 14121-32  | 7.7             | 61   |
| 146 | Nanopores formed by DNA origami: a review. FEBS Letters, 2014, 588, 3564-70   | 3.8             | 59   |
| 145 | Real-time particle tracking at 10,000 fps using optical fiber illumination. <i>Optics Express</i> , <b>2010</b> , 18, 22722                           | -33             | 58   |
| 144 | Digital Data Storage Using DNA Nanostructures and Solid-State Nanopores. <i>Nano Letters</i> , <b>2019</b> , 19, 121                                  | 0 <u>r13</u> 1! | 5 58 |
| 143 | Nanomachining of mesoscopic electronic devices using an atomic force microscope. <i>Applied Physics Letters</i> , <b>1999</b> , 75, 1107-1109         | 3.4             | 57   |
| 142 | Tether forces in DNA electrophoresis. Chemical Society Reviews, 2010, 39, 939-47  | 58.5            | 56   |
| 141 | Multiplexed ionic current sensing with glass nanopores. <i>Lab on A Chip</i> , <b>2013</b> , 13, 1859-62  | 7.2             | 55   |
| 140 | Thermo-Responsive Actuation of a DNA Origami Flexor. Advanced Functional Materials, 2018, 28, 17064   | <b>110</b> 5.6  | 52   |
| 139 | Enhancing nanopore sensing with DNA nanotechnology. <i>Nature Nanotechnology</i> , <b>2016</b> , 11, 106-8  | 28.7            | 51   |
| 138 | Single molecule based SNP detection using designed DNA carriers and solid-state nanopores. <i>Chemical Communications</i> , <b>2016</b> , 53, 436-439 | 5.8             | 49   |
| 137 | Voltage-dependent properties of DNA origami nanopores. <i>Nano Letters</i> , <b>2014</b> , 14, 1270-4   | 11.5            | 49   |

| 136 | Voltage-driven transport of ions and DNA through nanocapillaries. <i>Electrophoresis</i> , <b>2012</b> , 33, 3480-7   | 3.6      | 49 |
|-----|---|----------|----|
| 135 | Electroosmotic flow rectification in conical nanopores. <i>Nanotechnology</i> , <b>2015</b> , 26, 275202  | 3.4      | 47 |
| 134 | Translocation frequency of double-stranded DNA through a solid-state nanopore. <i>Physical Review E</i> , <b>2016</b> , 93, 022401  | 2.4      | 47 |
| 133 | Optical tweezers with 2.5 kHz bandwidth video detection for single-colloid electrophoresis. <i>Review of Scientific Instruments</i> , <b>2008</b> , 79, 023710                      | 1.7      | 47 |
| 132 | Anisotropic diffusion of spherical particles in closely confining microchannels. <i>Physical Review E</i> , <b>2014</b> , 89, 062305  | 2.4      | 46 |
| 131 | Quantification of Fluoroquinolone Uptake through the Outer Membrane Channel OmpF of Escherichia coli. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 13836-43 | 16.4     | 45 |
| 130 | Sensing DNA-coatings of microparticles using micropipettes. <i>Biosensors and Bioelectronics</i> , <b>2009</b> , 24, 2423-7   | 11.8     | 45 |
| 129 | Blockable Zn L Ion Channels through Subcomponent Self-Assembly. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 15388-15392                                    | 16.4     | 43 |
| 128 | Asymmetric dynamics of DNA entering and exiting a strongly confining nanopore. <i>Nature Communications</i> , <b>2017</b> , 8, 380  | 17.4     | 43 |
| 127 | Measuring the proton selectivity of graphene membranes. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 213104  | 3.4      | 42 |
| 126 | The indole pulse: a new perspective on indole signalling in Escherichia coli. <i>PLoS ONE</i> , <b>2014</b> , 9, e93168   | 3.7      | 41 |
| 125 | Electroosmotic flow reversal outside glass nanopores. <i>Nano Letters</i> , <b>2015</b> , 15, 695-702   | 11.5     | 40 |
| 124 | Free-standing graphene membranes on glass nanopores for ionic current measurements. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 023119                                      | 3.4      | 40 |
| 123 | Ionic Current-Based Mapping of Short Sequence Motifs in Single DNA Molecules Using Solid-State Nanopores. <i>Nano Letters</i> , <b>2017</b> , 17, 5199-5205                         | 11.5     | 39 |
| 122 | Studying DNA translocation in nanocapillaries using single molecule fluorescence. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 223704  | 3.4      | 38 |
| 121 | A Landau-Squire nanojet. <i>Nano Letters</i> , <b>2013</b> , 13, 5141-6   | 11.5     | 37 |
| 120 | Nanopore-Based DNA Hard Drives for Rewritable and Secure Data Storage. <i>Nano Letters</i> , <b>2020</b> , 20, 375  | 4±3:7560 | 35 |
| 119 | Simple reconstitution of protein pores in nano lipid bilayers. <i>Nano Letters</i> , <b>2011</b> , 11, 3334-40  | 11.5     | 35 |

| 118 | QuipuNet: Convolutional Neural Network for Single-Molecule Nanopore Sensing. <i>Nano Letters</i> , <b>2018</b> , 18, 4040-4045  | 11.5 | 35 |
|-----|---|------|----|
| 117 | DNA interactions in crowded nanopores. <i>Nano Letters</i> , <b>2013</b> , 13, 2798-802   | 11.5 | 34 |
| 116 | Optimizing diffusive transport through a synthetic membrane channel. <i>Advanced Materials</i> , <b>2013</b> , 25, 844-9  | 24   | 34 |
| 115 | Microfluidics Reveals a Flow-Induced Large-Scale Polymorphism of Protein Aggregates. <i>Journal of Physical Chemistry Letters</i> , <b>2012</b> , 3, 2803-2807  | 6.4  | 33 |
| 114 | Multiplexed DNA Identification Using Site Specific dCas9 Barcodes and Nanopore Sensing. <i>ACS Sensors</i> , <b>2019</b> , 4, 2065-2072   | 9.2  | 32 |
| 113 | Controlled mechanical AFM machining of two-dimensional electron systems: fabrication of a single-electron transistor. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2000</b> , 6, 860-863 | 3    | 32 |
| 112 | A microfluidic platform for the characterisation of membrane active antimicrobials. <i>Lab on A Chip</i> , <b>2019</b> , 19, 837-844  | 7.2  | 31 |
| 111 | Optical Voltage Sensing Using DNA Origami. <i>Nano Letters</i> , <b>2018</b> , 18, 1962-1971  | 11.5 | 31 |
| 110 | Channel-facilitated diffusion boosted by particle binding at the channel entrance. <i>Physical Review Letters</i> , <b>2014</b> , 113, 048102   | 7.4  | 31 |
| 109 | Selective transport control on molecular velcro made from intrinsically disordered proteins. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 525-30   | 28.7 | 30 |
| 108 | Nondecaying Hydrodynamic Interactions along Narrow Channels. <i>Physical Review Letters</i> , <b>2015</b> , 115, 038301   | 7.4  | 30 |
| 107 | Controlling the Reversible Assembly of Liposomes through a Multistimuli Responsive Anchored DNA. <i>Nano Letters</i> , <b>2016</b> , 16, 4462-6   | 11.5 | 29 |
| 106 | Scalable integration of nano-, and microfluidics with hybrid two-photon lithography. <i>Microsystems and Nanoengineering</i> , <b>2019</b> , 5, 40  | 7.7  | 28 |
| 105 | Single colloid electrophoresis. <i>Journal of Colloid and Interface Science</i> , <b>2009</b> , 337, 260-4  | 9.3  | 28 |
| 104 | Lipid-coated nanocapillaries for DNA sensing. <i>Analyst, The</i> , <b>2013</b> , 138, 104-6  | 5    | 27 |
| 103 | Probing DNA with micro- and nanocapillaries and optical tweezers. <i>Journal of Physics Condensed Matter</i> , <b>2010</b> , 22, 454113   | 1.8  | 27 |
| 102 | Modeling of colloidal transport in capillaries. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 084702   | 2.5  | 26 |
| 101 | Experimental evidence of symmetry breaking of transition-path times. <i>Nature Communications</i> , <b>2019</b> , 10, 55  | 17.4 | 26 |

| 100 | Nanotubes complexed with DNA and proteins for resistive-pulse sensing. ACS Nano, 2013, 7, 8857-69   | 16.7              | 25 |  |
|-----|---|-------------------|----|--|
| 99  | Lipid-Bilayer-Spanning DNA Nanopores with a Bifunctional Porphyrin Anchor. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 12291-12294  | 3.6               | 25 |  |
| 98  | Parallel sub-micrometre channels with different dimensions for laser scattering detection. <i>Lab on A Chip</i> , <b>2011</b> , 11, 3365-8  | 7.2               | 25 |  |
| 97  | Single-cell microfluidics facilitates the rapid quantification of antibiotic accumulation in Gram-negative bacteria. <i>Lab on A Chip</i> , <b>2020</b> , 20, 2765-2775           | 7.2               | 24 |  |
| 96  | The effect of bacterial signal indole on the electrical properties of lipid membranes. <i>ChemPhysChem</i> , <b>2013</b> , 14, 417-23   | 3.2               | 24 |  |
| 95  | Nanopore analysis of amyloid fibrils formed by lysozyme aggregation. <i>Analyst, The</i> , <b>2015</b> , 140, 4882-6  | 5                 | 24 |  |
| 94  | Direction- and Salt-Dependent Ionic Current Signatures for DNA Sensing with Asymmetric Nanopores. <i>Biophysical Journal</i> , <b>2017</b> , 112, 674-682                         | 2.9               | 23 |  |
| 93  | Direct Optofluidic Measurement of the Lipid Permeability of Fluoroquinolones. <i>Scientific Reports</i> , <b>2016</b> , 6, 32824  | 4.9               | 23 |  |
| 92  | Controlling aggregation of cholesterol-modified DNA nanostructures. <i>Nucleic Acids Research</i> , <b>2019</b> , 47, 11441-11451   | 20.1              | 23 |  |
| 91  | Local characterization of hindered Brownian motion by using digital video microscopy and 3D particle tracking. <i>Review of Scientific Instruments</i> , <b>2014</b> , 85, 023708 | 1.7               | 23 |  |
| 90  | An Integrated Microfluidic Platform for Quantifying Drug Permeation across Biomimetic Vesicle Membranes. <i>Molecular Pharmaceutics</i> , <b>2019</b> , 16, 2494-2501             | 5.6               | 22 |  |
| 89  | A label-free microfluidic assay to quantitatively study antibiotic diffusion through lipid membranes. <i>Lab on A Chip</i> , <b>2014</b> , 14, 2303-8                             | 7.2               | 22 |  |
| 88  | High-speed video-based tracking of optically trapped colloids. <i>Journal of Optics (United Kingdom)</i> , <b>2011</b> , 13, 044011   | 1.7               | 22 |  |
| 87  | Flux-quantum-modulated Kondo conductance in a multielectron quantum dot. <i>Physical Review B</i> , <b>2002</b> , 66,   | 3.3               | 22 |  |
| 86  | Digital Sensing and Molecular Computation by an Enzyme-Free DNA Circuit. ACS Nano, 2020, 14, 5763-5   | 5761 <sub>7</sub> | 22 |  |
| 85  | FeL Tetrahedron Binds to Nonpaired DNA Bases. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 11358-11362  | 16.4              | 21 |  |
| 84  | Rapid internal contraction boosts DNA friction. <i>Nature Communications</i> , <b>2013</b> , 4, 1780  | 17.4              | 21 |  |
| 83  | Measurement of the position-dependent electrophoretic force on DNA in a glass nanocapillary.  Nano Letters, 2014, 14, 6606-13   | 11.5              | 20 |  |

| 82 | Lipid nanobilayers to host biological nanopores for DNA translocations. <i>Langmuir</i> , <b>2013</b> , 29, 355-64  | 4     | 20 |
|----|---|-------|----|
| 81 | Kinetically limited quantum dot formation on AlAs(100) surfaces. <i>Journal of Crystal Growth</i> , <b>2003</b> , 249, 477-482  | 1.6   | 20 |
| 80 | Fabrication of quantum point contacts by engraving GaAs/AlGaAs heterostructures with a diamond tip. <i>Applied Physics Letters</i> , <b>2002</b> , 81, 2023-2025                        | 3.4   | 20 |
| 79 | Optimizing Brownian escape rates by potential shaping. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 1383-1388            | 11.5  | 20 |
| 78 | The Crucial Role of Charge in Thermoresponsive-Polymer-Assisted Reversible Dis/Assembly of Gold Nanoparticles. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1701270             | 8.1   | 19 |
| 77 | Current Enhancement in Solid-State Nanopores Depends on Three-Dimensional DNA Structure.  Nano Letters, <b>2019</b> , 19, 5661-5666   | 11.5  | 19 |
| 76 | All-Optical Detection of Neuronal Membrane Depolarization in Live Cells Using Colloidal Quantum Dots. <i>Nano Letters</i> , <b>2019</b> , 19, 8539-8549                                 | 11.5  | 19 |
| 75 | A microfluidic device for characterizing nuclear deformations. <i>Lab on A Chip</i> , <b>2017</b> , 17, 805-813   | 7.2   | 18 |
| 74 | Promoting single-file DNA translocations through nanopores using electro-osmotic flow. <i>Journal of Chemical Physics</i> , <b>2018</b> , 149, 163311                                   | 3.9   | 18 |
| 73 | Spin blockade in capacitively coupled quantum dots. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 606-608  | 3.4   | 18 |
| 72 | Diamond cantilever with integrated tip for nanomachining. <i>Diamond and Related Materials</i> , <b>2002</b> , 11, 667-671  | 3.5   | 18 |
| 71 | Specific Biosensing Using DNA Aptamers and Nanopores. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1807   | 75:55 | 18 |
| 70 | Indole Pulse Signalling Regulates the Cytoplasmic pH of E. coli in a Memory-Like Manner. <i>Scientific Reports</i> , <b>2019</b> , 9, 3868  | 4.9   | 17 |
| 69 | Dependence of norfloxacin diffusion across bilayers on lipid composition. Soft Matter, 2016, 12, 2135-4   | 43.6  | 17 |
| 68 | Tunable Anion-Selective Transport through Monolayer Graphene and Hexagonal Boron Nitride. <i>ACS Nano</i> , <b>2020</b> , 14, 2729-2738   | 16.7  | 17 |
| 67 | Note: Direct force and ionic-current measurements on DNA in a nanocapillary. <i>Review of Scientific Instruments</i> , <b>2011</b> , 82, 086102   | 1.7   | 15 |
| 66 | Perpendicular coupling to in-plane photonics using arc waveguides fabricated via two-photon polymerization. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 171102                  | 3.4   | 15 |
| 65 | Combined atomic force microscope and electron-beam lithography used for the fabrication of variable-coupling quantum dots. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 1163-1165 | 3.4   | 15 |

## (2019-2019)

| 64 | Tailoring the Binding Properties of Phosphazane Anion Receptors and Transporters. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 8807-8815  | 16.4          | 14 |  |
|----|---|---------------|----|--|
| 63 | Combining Affinity Selection and Specific Ion Mobility for Microchip Protein Sensing. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 10302-10310   | 7.8           | 14 |  |
| 62 | Nonlinear Electrophoresis of Highly Charged Nonpolarizable Particles. <i>Physical Review Letters</i> , <b>2019</b> , 123, 014502  | 7.4           | 14 |  |
| 61 | Optical tweezers to study single protein A/immunoglobulin G interactions at varying conditions. <i>European Biophysics Journal</i> , <b>2008</b> , 37, 927-34   | 1.9           | 14 |  |
| 60 | Characterization of lipid composition and diffusivity in OLA generated vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2020</b> , 1862, 183359   | 3.8           | 13 |  |
| 59 | Direct detection of molecular intermediates from first-passage times. <i>Science Advances</i> , <b>2020</b> , 6, eaaz4  | <b>642</b> .3 | 12 |  |
| 58 | Blockable Zn10L15 Ion Channels through Subcomponent Self-Assembly. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 15590-15594  | 3.6           | 12 |  |
| 57 | Micro-rheology on (polymer-grafted) colloids using optical tweezers. <i>Journal of Physics Condensed Matter</i> , <b>2011</b> , 23, 184114  | 1.8           | 12 |  |
| 56 | Tuning the onset voltage of resonant tunneling through InAs quantum dots by growth parameters. <i>Applied Physics Letters</i> , <b>2003</b> , 82, 1209-1211   | 3.4           | 12 |  |
| 55 | Selective Trapping of DNA Using Glass Microcapillaries. <i>Langmuir</i> , <b>2016</b> , 32, 8525-32   | 4             | 11 |  |
| 54 | Monitoring G-Quadruplex Formation with DNA Carriers and Solid-State Nanopores. <i>Nano Letters</i> , <b>2019</b> , 19, 7996-8001  | 11.5          | 10 |  |
| 53 | Aerosol-jet printing facilitates the rapid prototyping of microfluidic devices with versatile geometries and precise channel functionalization. <i>Applied Materials Today</i> , <b>2020</b> , 19, 100618 | 6.6           | 10 |  |
| 52 | Influence of the size of self-assembled InAs/AlAs quantum dots on photoluminescence and resonant tunneling. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2002</b> , 13, 761-764      | 3             | 10 |  |
| 51 | Cations Regulate Membrane Attachment and Functionality of DNA Nanostructures. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 7358-7367  | 16.4          | 10 |  |
| 50 | Diffusion coefficients and particle transport in synthetic membrane channels. <i>European Physical Journal: Special Topics</i> , <b>2014</b> , 223, 3145-3163   | 2.3           | 9  |  |
| 49 | Switching Cytolytic Nanopores into Antimicrobial Fractal Ruptures by a Single Side Chain Mutation. <i>ACS Nano</i> , <b>2021</b> , 15, 9679-9689  | 16.7          | 9  |  |
| 48 | Kinetics of Toehold-Mediated DNA Strand Displacement Depend on FeL Tetrahedron Concentration. <i>Nano Letters</i> , <b>2021</b> , 21, 1368-1374   | 11.5          | 9  |  |
| 47 | Cation dependent electroosmotic flow in glass nanopores. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 113702   | 3.4           | 8  |  |
|    |   |               |    |  |

| 46 | Bacterial nucleoid structure probed by active drag and resistive pulse sensing. <i>Integrative Biology</i> (United Kingdom), <b>2014</b> , 6, 184-91                          | 3.7            | 8 |
|----|---|----------------|---|
| 45 | Conformational Control in Main Group Phosphazane Anion Receptors and Transporters. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 1029-1037             | 16.4           | 8 |
| 44 | Density-Dependent Speed-up of Particle Transport in Channels. <i>Physical Review Letters</i> , <b>2019</b> , 122, 2145  | 5 <b>9</b> :14 | 7 |
| 43 | Tailoring Interleaflet Lipid Transfer with a DNA-based Synthetic Enzyme. <i>Nano Letters</i> , <b>2020</b> , 20, 4306-4   | <b>3111</b> 5  | 7 |
| 42 | Kinetics of TmHU binding to DNA as observed by optical tweezers. <i>Microscopy Research and Technique</i> , <b>2007</b> , 70, 938-43  | 2.8            | 7 |
| 41 | Direct fabrication of parallel quantum dots with an atomic force microscope. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2002</b> , 13, 1155-1158       | 3              | 7 |
| 40 | Inserting and manipulating DNA in a nanopore with optical tweezers. <i>Methods in Molecular Biology</i> , <b>2009</b> , 544, 95-112   | 1.4            | 7 |
| 39 | Fabrication of Quantum Dots with Scanning Probe Nanolithography. <i>Physica Status Solidi (B): Basic Research</i> , <b>2001</b> , 224, 681-684                                | 1.3            | 6 |
| 38 | Electrical DNA Sequence Mapping Using Oligodeoxynucleotide Labels and Nanopores. <i>ACS Nano</i> , <b>2021</b> , 15, 2679-2685  | 16.7           | 6 |
| 37 | Optical tweezers for mechanical control over DNA in a nanopore. <i>Methods in Molecular Biology</i> , <b>2012</b> , 870, 115-34   | 1.4            | 5 |
| 36 | Analyzing single DNA molecules by nanopore translocation. <i>Methods in Molecular Biology</i> , <b>2012</b> , 870, 135-45   | 1.4            | 5 |
| 35 | DNA condensation by TmHU studied by optical tweezers, AFM and molecular dynamics simulations. <i>Journal of Biological Physics</i> , <b>2011</b> , 37, 117-31                 | 1.6            | 5 |
| 34 | Photoluminescence of self-assembled InAs/AlAs quantum dots as a function of density. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2003</b> , 17, 117-119 | 3              | 5 |
| 33 | DNA Origami Voltage Sensors for Transmembrane Potentials with Single-Molecule Sensitivity. <i>Nano Letters</i> , <b>2021</b> , 21, 8634-8641                                  | 11.5           | 5 |
| 32 | Noise properties of rectifying and non-rectifying nanopores. <i>Nanotechnology</i> , <b>2019</b> , 31, 10LT01   | 3.4            | 5 |
| 31 | Image Encoding Using Multi-Level DNA Barcodes with Nanopore Readout. Small, 2021, 17, e2100711  | 11             | 5 |
| 30 | Dynamics of driven polymer transport through a nanopore. <i>Nature Physics</i> , <b>2021</b> , 17, 1043-1049  | 16.2           | 5 |
| 29 | Particle transport across a channel via an oscillating potential. <i>Physical Review E</i> , <b>2017</b> , 96, 052401   | 2.4            | 4 |

## (2021-2004)

| 28 | Fabrication of double quantum dots by combining afm and e-beam lithography. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2004</b> , 21, 483-486                                      | 3   | 4 |
|----|---|-----|---|
| 27 | DNA Structural Barcode Copying and Random Access. Small Structures, <b>2021</b> , 2, 2000144  | 8.7 | 4 |
| 26 | Fano resonances in semiconductor quantum dots. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2003</b> , 1305-1308  |     | 3 |
| 25 | Nondeterministic self-assembly with asymmetric interactions. <i>Physical Review E</i> , <b>2016</b> , 94, 022404  | 2.4 | 3 |
| 24 | Dynamics of deterministically positioned single-bond surface-enhanced Raman scattering from DNA origami assembled in plasmonic nanogaps. <i>Journal of Raman Spectroscopy</i> , <b>2021</b> , 52, 348-354 | 2.3 | 3 |
| 23 | Nanopores - mission accomplished and what next?: Comment on "Nanopores: A journey towards DNA sequencing" by M. Wanunu. <i>Physics of Life Reviews</i> , <b>2012</b> , 9, 164-6; discussion 174-6         | 2.1 | 2 |
| 22 | Fractional Aharonov-Bohm Oscillations in a Kondo Correlated Few-Electron Quantum Ring. <i>Advances in Solid State Physics</i> , <b>2003</b> , 113-124   |     | 2 |
| 21 | A Microfluidic Platform for Sequential Assembly and Separation of Synthetic Cell Models. <i>ACS Synthetic Biology</i> , <b>2021</b> , 10, 3105-3116   | 5.7 | 2 |
| 20 | DNA Nanotechnology for Building Sensors, Nanopores and Ion-Channels. <i>Advances in Experimental Medicine and Biology</i> , <b>2019</b> , 1174, 331-370   | 3.6 | 2 |
| 19 | Standardizing characterization of membrane active peptides with microfluidics. <i>Biomicrofluidics</i> , <b>2021</b> , 15, 041301   | 3.2 | 2 |
| 18 | Influence of internal viscoelastic modes on the Brownian motion of a EDNA coated colloid. <i>Soft Matter</i> , <b>2014</b> , 10, 1738-45  | 3.6 | 1 |
| 17 | DNA Translocation <b>2013</b> , 31-58   |     | 1 |
| 16 | Colloid Flow Control in Microchannels and Detection by Laser Scattering 2012, 45-49   |     | 1 |
| 15 | Aharonov <b>B</b> ohm effect of a quantum ring in the Kondo regime. <i>Physica Status Solidi (B): Basic Research</i> , <b>2003</b> , 238, 331-334   | 1.3 | 1 |
| 14 | Secure data storage on DNA hard drives  |     | 1 |
| 13 | Experimental Measurement of Relative Path Probabilities and Stochastic Actions. <i>Physical Review X</i> , <b>2021</b> , 11,  | 9.1 | 1 |
| 12 | Channel-length dependence of particle diffusivity in confinement. <i>Soft Matter</i> , <b>2021</b> , 17, 5131-5136  | 3.6 | 1 |
| 11 | Ionic and molecular transport in aqueous solution through 2D and layered nanoporous membranes. <i>Journal Physics D: Applied Physics</i> , <b>2021</b> , 54, 183002                                       | 3   | 1 |

| 10 | Measuring thousands of single vesicle leakage events reveals the mode of action of antimicrobial pepti   | des  | 1 |
|----|--|------|---|
| 9  | Current Fluctuations in Nanopores Reveal the Polymer-Wall Adsorption Potential. <i>Physical Review Letters</i> , <b>2021</b> , 127, 137801   | 7.4  | 1 |
| 8  | An ultrasensitive microfluidic approach reveals correlations between the physico-chemical and biological activity of experimental peptide antibiotics <i>Scientific Reports</i> , <b>2022</b> , 12, 4005 | 4.9  | 1 |
| 7  | Toward single-molecule proteomics <i>Science</i> , <b>2021</b> , 374, 1443-1444  | 33.3 | O |
| 6  | Membrane Activity of a DNA-Based Ion Channel Depends on the Stability of Its Double-Stranded Structure. <i>Nano Letters</i> , <b>2021</b> , 21, 9789-9796  | 11.5 | О |
| 5  | Fe L tetrahedron binds and aggregates DNA G-quadruplexes. <i>Chemical Science</i> , <b>2021</b> , 12, 14564-14569  | 9.4  | O |
| 4  | Lifetime of glass nanopores in a PDMS chip for single-molecule sensing IScience, 2022, 25, 104191  | 6.1  | O |
| 3  | Giant Unilamellar Vesicles and Suspended Nanobilayers as Model Systems for Biophysical Research. <i>Behavior Research Methods</i> , <b>2014</b> , 67-89  | 6.1  |   |
| 2  | Design and Assembly of Membrane-Spanning DNA Nanopores. <i>Methods in Molecular Biology</i> , <b>2021</b> , 2186, 33-48  | 1.4  |   |
| 1  | 3D flow field measurements outside nanopores. <i>Review of Scientific Instruments</i> , <b>2022</b> , 93, 054106   | 1.7  |   |