# Fredrik Nikolajeff

List of Publications by Year
in descending order



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|---|---|---|---|
| 55 papers | 1,830 citations | 236925 25 h-index | 276875 41 g-index |
| 58 all docs | 58 docs citations | 58 times ranked | 2527 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Cassieâ€“Wenzel and Wenzelâ€“Cassie transitions on immersed superhydrophobic surfaces under hydrostatic pressure. Soft Matter, 2011, 7, 104-109. | 2.7 | 169 |
| 2 | The lipid peroxidation products 4-oxo-2-nonenal and 4-hydroxy-2-nonenal promote the formation of Î±-synuclein oligomers with distinct biochemical, morphological, and functional properties. Free Radical Biology and Medicine, 2011, 50, 428-437. | 2.9 | 121 |
| 3 | A hybrid poly(dimethylsiloxane) microsystem for on-chip whole blood filtration optimized for steroid screening. Biomedical Microdevices, 2006, 8, 73-79. | 2.8 | 105 |
| 4 | The Evolving Landscape of Exosomes in Neurodegenerative Diseases: Exosomes Characteristics and a Promising Role in Early Diagnosis. International Journal of Molecular Sciences, 2021, 22, 440. | 4.1 | 84 |
| 5 | On-Chip Electric Field Driven Electrochemical Detection Using a Poly(dimethylsiloxane) Microchannel with Gold Microband Electrodes. Analytical Chemistry, 2008, 80, 3622-3632. | 6.5 | 79 |
| 6 | Biomineralization process in hard tissues: The interaction complexity within protein and inorganic counterparts. Acta Biomaterialia, 2021, 120, 20-37. | 8.3 | 73 |
| 7 | On-Chip Fluorescence-Activated Cell Sorting by an Integrated Miniaturized Ultrasonic Transducer. Analytical Chemistry, 2009, 81, 5188-5196. | 6.5 | 68 |
| 8 | Sheathless Electrospray from Polymer Microchips. Analytical Chemistry, 2003, 75, 3934-3940. | 6.5 | 67 |
| 9 | Fabrication of a paraffin actuator using hot embossing of polycarbonate. Sensors and Actuators A: Physical, 2003, 103, 307-316. | 4.1 | 61 |
| 10 | From Hydrophilic to Superhydrophobic: Fabrication of Micrometer-Sized Nail-Head-Shaped Pillars in Diamond. Langmuir, 2010, 26, 889-893. | 3.5 | 59 |
| 11 | Neuronal exosomes in saliva of Parkinson's disease patients: A pilot study. Parkinsonism and Related Disorders, 2019, 67, 21-23. | 2.2 | 57 |
| 12 | Poly(dimethylsiloxane) microchip: microchannel with integrated open electrospray tip. Lab on A Chip, 2004, 4, 322. | 6.0 | 53 |
| 13 | Anisotropic dry etching of boron doped single crystal CVD diamond. Carbon, 2005, 43, 1839-1842. | 10.3 | 53 |
| 14 | Role of Infrared Spectroscopy and Imaging in Cancer Diagnosis. Current Medicinal Chemistry, 2018, 25, 1055-1072. | 2.4 | 53 |
| 15 | Electrokinetic-driven microfluidic system in poly(dimethylsiloxane) for mass spectrometry detection integrating sample injection, capillary electrophoresis, and electrospray emitter on-chip. Electrophoresis, 2005, 26, 4674-4683. | 2.4 | 47 |
| 16 | Effective mixing of laminar flows at a density interface by an integrated ultrasonic transducer. Lab on A Chip, 2009, 9, 297-304. | 6.0 | 47 |
| 17 | Diamonds Are a Spectroscopistâ€™s Best Friend: Thin-Film Diamond Mid-Infrared Waveguides for Advanced Chemical Sensors/Biosensors. Analytical Chemistry, 2014, 86, 8136-8141. | 6.5 | 43 |
| 18 | Transfer of continuous-relief diffractive structures into diamond by use of inductively coupled plasma dry etching. Optics Letters, 2001, 26, 1752. | 3.3 | 42 |

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|---|---|---|---|
| 19 | The lipid peroxidation metabolite 4-oxo-2-nonenal cross-links Î±-synuclein causing rapid formation of stable oligomers. Biochemical and Biophysical Research Communications, 2009, 378, 872-876. | 2.1 | 37 |
| 20 | Diffractive microlenses replicated in fused silica for excimer laser-beam homogenizing. Applied Optics, 1997, 36, 8481. | 2.1 | 35 |
| 21 | A PDMS-based disposable microfluidic sensor for CD4+ lymphocyte counting. Biomedical Microdevices, 2008, 10, 851-857. | 2.8 | 34 |
| 22 | A novel approach to correlate the salivary exosomes and their protein cargo in the progression of cognitive impairment into Alzheimerâ€™s disease. Journal of Neuroscience Methods, 2021, 347, 108980. | 2.5 | 30 |
| 23 | Midâ€infrared thinâ€film diamond waveguides combined with tunable quantum cascade lasers for analyzing the secondary structure of proteins. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2117-2123. | 1.8 | 29 |
| 24 | Thermoplastic Microfluidic Platform for Single-Molecule Detection, Cell Culture, and Actuation. Analytical Chemistry, 2005, 77, 7122-7130. | 6.5 | 27 |
| 25 | Bioactivated PDMS microchannel evaluated as sensor for human CD4+ cellsâ€”The concept of a point-of-care method for HIV monitoring. Sensors and Actuators B: Chemical, 2007, 123, 847-855. | 7.8 | 27 |
| 26 | Bioactive heparin immobilized onto microfluidic channels in poly(dimethylsiloxane) results in hydrophilic surface properties. Colloids and Surfaces B: Biointerfaces, 2005, 46, 240-247. | 5.0 | 26 |
| 27 | Instant oxidation of closed microchannels. Journal of Micromechanics and Microengineering, 2007, 17, N16-N21. | 2.6 | 23 |
| 28 | Off-pathwayÎ±-synuclein oligomers seem to alterÎ±-synuclein turnover in a cell model but lack seeding capabilityin vivo. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2013, 20, 233-244. | 3.0 | 22 |
| 29 | MEMS-based VCSEL beam steering using replicated polymer diffractive lens. Sensors and Actuators A: Physical, 2008, 142, 336-345. | 4.1 | 21 |
| 30 | Functionality and stability of heparin immobilized onto poly(dimethylsiloxane). Colloids and Surfaces B: Biointerfaces, 2005, 45, 76-81. | 5.0 | 19 |
| 31 | Waveguides in polycrystalline diamond for mid-IR sensing. Optical Materials Express, 2016, 6, 1286. | 3.0 | 19 |
| 32 | Sample pretreatment on a microchip with an integrated electrospray emitter. Electrophoresis, 2006, 27, 2075-2082. | 2.4 | 18 |
| 33 | Changes in secondary structure of Î±-synuclein during oligomerization induced by reactive aldehydes. Biochemical and Biophysical Research Communications, 2015, 464, 336-341. | 2.1 | 18 |
| 34 | Altered neural cell junctions and ion-channels leading to disrupted neuron communication in Parkinsonâ€™s disease. Npj Parkinson's Disease, 2022, 8, . | 5.3 | 15 |
| 35 | Polycrystalline Diamond Thin-Film Waveguides for Mid-Infrared Evanescent Field Sensors. ACS Omega, 2018, 3, 6190-6198. | 3.5 | 14 |
| 36 | Characterization of protein extracts from different types of human teeth and insight in biomineralization. Scientific Reports, 2019, 9, 9314. | 3.3 | 14 |

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|---|---|---|---|
| 37 | Fabrication of boron doped diamond microband electrodes for electrochemical detection in a microfluidic channel. Diamond and Related Materials, 2011, 20, 1121-1124. | 3.9 | 13 |
| 38 | Gelsolin co-occurs with Lewy bodies in vivo and accelerates Î±-synuclein aggregation in vitro. Biochemical and Biophysical Research Communications, 2011, 412, 32-38. | 2.1 | 12 |
| 39 | Designed protein binders in combination with nanocrystalline diamond for use in high-sensitivity biosensors. Analytical and Bioanalytical Chemistry, 2012, 404, 1643-1651. | 3.7 | 12 |
| 40 | Mapping the Inorganic and Proteomic Differences among Different Types of Human Teeth: A Preliminary Compositional Insight. Biomolecules, 2020, 10, 1540. | 4.0 | 12 |
| 41 | On the integration of flexible circuit boards with hot embossed thermoplastic structures for actuator purposes. Sensors and Actuators A: Physical, 2006, 125, 534-547. | 4.1 | 11 |
| 42 | Nanocrystalline diamond sensor targeted for selective CRP detection: an ATR-FTIR spectroscopy study. Analytical and Bioanalytical Chemistry, 2016, 408, 3675-3680. | 3.7 | 11 |
| 43 | A general strategy for template-free and low-cost synthesis of inorganic hollow spheres. Powder Technology, 2017, 319, 163-171. | 4.2 | 8 |
| 44 | Microreplication in a silicon processing compatible polymer material. Journal of Micromechanics and Microengineering, 2005, 15, S116-S121. | 2.6 | 7 |
| 45 | Novel Insights into Regulation of Human Teeth Biomineralization: Deciphering the Role of Post-Translational Modifications in a Tooth Protein Extract. International Journal of Molecular Sciences, 2019, 20, 4035. | 4.1 | 7 |
| 46 | Replication of continuous-profiled micro-optical elements for silicon integration. Applied Optics, 2006, 45, 83. | 2.1 | 6 |
| 47 | Template-free synthesis of phosphate-based spheres via modified supersaturated phosphate buffer solutions. Journal of Materials Science: Materials in Medicine, 2017, 28, 99. | 3.6 | 6 |
| 48 | Corrosion Detection by Infrared Attenuated Total Reflection Spectroscopy via Diamond-Like Carbon-Coated Silicon Wafers and Iron-Sensitive Dyes. Sensors, 2019, 19, 3373. | 3.8 | 6 |
| 49 | Insights into Biochemical Alteration in Cancer-Associated Fibroblasts by using Novel Correlative Spectroscopy. ChemistryOpen, 2017, 6, 149-157. | 1.9 | 5 |
| 50 | A novel rapid synthesis, characterization and applications of calcium phosphate nanospheres from Baltic seawater. Ceramics International, 2018, 44, 9076-9079. | 4.8 | 1 |
| 51 | Rapid precipitation of Mg-doped fluoride-based submicron spheres and evolution study. Journal of Solid State Chemistry, 2018, 260, 142-146. | 2.9 | 1 |
| 52 | Fabrication of refractive and diffractive micro-optical structures in diamond. , 2002, , . | | 1 |
| 53 | Diamond micro-optics for high-power lasers. , 2002, , . | | 0 |
| 54 | Confocal data acquisition for digital quantification using amplified single molecule detection. , 2006, 6398, 222. | | 0 |

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|---|---|---|---|
| 55 | Unstructured Proteins in Biological Structures: The Case of Human Teeth from a Protein Chemist's Perspective. FASEB Journal, 2019, 33, lb195. | 0.5 | 0 |