Aleksandra Radenovic

List of Publications by Year
in descending order

134 papers	27,162 citations	41258 49 h-index	16127 124 g-index
141 all docs	141 docs citations	141 times ranked	29074 citing authors

#	Article	IF	Citations
1	Zeroâ€Bias Powerâ€Detector Circuits based on MoS₂ Fieldâ€Effect Transistors on Waferâ€Scale Flexible Substrates. Advanced Materials, 2022, 34, e2108469.	11.1	14
2	Low-Power Artificial Neural Network Perceptron Based on Monolayer MoS₂. ACS Nano, 2022, 16, 3684-3694.	7.3	20
3	Statistical distortion of supervised learning predictions in optical microscopy induced by image compression. Scientific Reports, 2022, 12, 3464.	1.6	2
4	High Performance Semiconducting Nanosheets via a Scalable Powder-Based Electrochemical Exfoliation Technique. ACS Nano, 2022, 16, 5719-5730.	7.3	20
5	Engineering Optically Active Defects in Hexagonal Boron Nitride Using Focused Ion Beam and Water. ACS Nano, 2022, 16, 3695-3703.	7.3	28
6	Three-step, transfer-free growth of MoS₂/WS₂/graphene vertical van der Waals heterostructure. 2D Materials, 2022, 9, 025030.	2.0	5
7	Stable Al₂O₃ Encapsulation of MoS₂â€FETs Enabled by CVD Grown hâ€BN. Advanced Electronic Materials, 2022, 8, .	2.6	10
8	Decoding Digital Information Stored in Polymer by Nanopore. Biophysical Journal, 2021, 120, 98a.	0.2	1
9	Electrochemical Functionalization of Selectively Addressed MoS₂ Nanoribbons for Sensor Device Fabrication. ACS Applied Nano Materials, 2021, 4, 1076-1084.	2.4	14
10	Super-resolved Optical Mapping of Reactive Sulfur-Vacancies in Two-Dimensional Transition Metal Dichalcogenides. ACS Nano, 2021, 15, 7168-7178.	7.3	20
11	High resolution optical projection tomography platform for multispectral imaging of the mouse gut. Biomedical Optics Express, 2021, 12, 3619.	1.5	5
12	Parameter-free rendering of single-molecule localization microscopy data for parameter-free resolution estimation. Communications Biology, 2021, 4, 550.	2.0	2
13	From Water Solutions to Ionic Liquids with Solid State Nanopores as a Perspective to Study Transport and Translocation Phenomena. Small, 2021, 17, e2100777.	5.2	13
14	Adaptive optics enables multimode 3D super-resolution microscopy via remote focusing. Nanophotonics, 2021, 10, 2451-2458.	2.9	3
15	Low Hysteresis MoS2-FET Enabled by CVD-Grown h-BN Encapsulation. , 2021, , .		0
16	MoS₂/graphene Lateral Heterostructure Field Effect Transistors. , 2021, , .		1
17	Direct Growth of Hexagonal Boron Nitride on Photonic Chips for High-Throughput Characterization. ACS Photonics, 2021, 8, 2033-2040.	3.2	13
18	Correlative 3D microscopy of single cells using super-resolution and scanning ion-conductance microscopy. Nature Communications, 2021, 12, 4565.	5.8	25

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19	Experimental Combination of Super-Resolution Optical Fluctuation Imaging with Structured Illumination Microscopy for Large Fields-of-View. ACS Photonics, 2021, 8, 2440-2449.	3.2	6
20	Bio-orthogonal Red and Far-Red Fluorogenic Probes for Wash-Free Live-Cell and Super-resolution Microscopy. ACS Central Science, 2021, 7, 1561-1571.	5.3	57
21	Anomalous interfacial dynamics of single proton charges in binary aqueous solutions. Science Advances, 2021, 7, eabg8568.	4.7	8
22	Wetting of nanopores probed with pressure. Physical Chemistry Chemical Physics, 2021, 23, 4975-4987.	1.3	8
23	Rhesus Blood Typing within a Few Seconds by Packing-Enhanced Nanoscattering on Individual Erythrocytes. Analytical Chemistry, 2021, 93, 15142-15149.	3.2	1
24	Time-Resolved Scanning Ion Conductance Microscopy for Three-Dimensional Tracking of Nanoscale Cell Surface Dynamics. ACS Nano, 2021, 15, 17613-17622.	7.3	31
25	Superconducting 2D NbS₂ Grown Epitaxially by Chemical Vapor Deposition. ACS Nano, 2021, 15, 18403-18410.	7.3	21
26	High-speed multiplane structured illumination microscopy of living cells using an image-splitting prism. Nanophotonics, 2020, 9, 143-148.	2.9	15
27	Identifying microbial species by single-molecule DNA optical mapping and resampling statistics. NAR Genomics and Bioinformatics, 2020, 2, lqz007.	1.5	15
28	Nanoscale Selective Passivation of Electrodes Contacting a 2D Semiconductor. Advanced Functional Materials, 2020, 30, 1907860.	7.8	5
29	Pressure-Induced Enlargement and Ionic Current Rectification in Symmetric Nanopores. Nano Letters, 2020, 20, 8089-8095.	4.5	13
30	Polymer Coatings to Minimize Protein Adsorption in Solidâ€State Nanopores. Small Methods, 2020, 4, 2000177.	4.6	25
31	Addendum: Parameter-free image resolution estimation based on decorrelation analysis. Nature Methods, 2020, 17, 1061-1063.	9.0	6
32	Towards artificial mechanosensing. Nature Materials, 2020, 19, 1043-1044.	13.3	11
33	Recent Advances and Prospects in the Research of Nascent Adhesions. Frontiers in Physiology, 2020, 11, 574371.	1.3	14
34	Prospects of Observing Ionic Coulomb Blockade in Artificial Ion Confinements. Entropy, 2020, 22, 1430.	1.1	5
35	Aerolysin nanopores decode digital information stored in tailored macromolecular analytes. Science Advances, 2020, 6, .	4.7	57
36	Logic-in-memory based on an atomically thin semiconductor. Nature, 2020, 587, 72-77.	13.7	243

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37	Microscopic Detection Analysis of Single Molecules in MoS₂ Membrane Nanopores. ACS Nano, 2020, 14, 16131-16139.	7.3	17
38	Waferâ€Scale Fabrication of Nanopore Devices for Singleâ€Molecule DNA Biosensing using MoS₂. Small Methods, 2020, 4, 2000072.	4.6	32
39	Spectral cross-cumulants for multicolor super-resolved SOFI imaging. Nature Communications, 2020, 11, 3023.	5.8	21
40	Self-Blinking Dyes Unlock High-Order and Multiplane Super-Resolution Optical Fluctuation Imaging. ACS Nano, 2020, 14, 9156-9165.	7.3	35
41	Nanocapillary confinement of imidazolium based ionic liquids. Nanoscale, 2020, 12, 8867-8874.	2.8	10
42	High-Throughput Nanocapillary Filling Enabled by Microwave Radiation for Scanning Ion Conductance Microscopy Imaging. ACS Applied Nano Materials, 2020, 3, 7829-7834.	2.4	13
43	Unbalanced Ion Flushing Effect in MoS2 Nanopore Biosensors. Biophysical Journal, 2020, 118, 158a.	0.2	0
44	Direct observation of water-mediated single-proton transport between hBN surface defects. Nature Nanotechnology, 2020, 15, 598-604.	15.6	52
45	2D materials as an emerging platform for nanopore-based power generation. Nature Reviews Materials, 2019, 4, 588-605.	23.3	253
46	2D MoS₂ nanopores: ionic current blockade height for clustering DNA events. 2D Materials, 2019, 6, 045011.	2.0	8
47	Facile Production of Hexagonal Boron Nitride Nanoparticles by Cryogenic Exfoliation. Nano Letters, 2019, 19, 5417-5422.	4.5	25
48	Light-Enhanced Blue Energy Generation Using MoS2 Nanopores. Joule, 2019, 3, 1549-1564.	11.7	127
49	Transverse Detection of DNA Using a MoS₂ Nanopore. Nano Letters, 2019, 19, 9075-9083.	4.5	81
50	Waveguide-Based Platform for Large-FOV Imaging of Optically Active Defects in 2D Materials. ACS Photonics, 2019, 6, 3100-3107.	3.2	11
51	Wafer-scale MOCVD growth of monolayer MoS2 on sapphire and SiO2. Nano Research, 2019, 12, 2646-2652.	5.8	104
52	Parameter-free image resolution estimation based on decorrelation analysis. Nature Methods, 2019, 16, 918-924.	9.0	197
53	Spatiotemporal Imaging of Water in Operating Voltage-Gated Ion Channels Reveals the Slow Motion of Interfacial Ions. Nano Letters, 2019, 19, 7608-7613.	4.5	13
54	Waveguide-PAINT offers an open platform for large field-of-view super-resolution imaging. Nature Communications, 2019, 10, 1267.	5.8	54

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55	Fabrication and practical applications of molybdenum disulfide nanopores. Nature Protocols, 2019, 14, 1130-1168.	5.5	84
56	Wide-Field Spectral Super-Resolution Mapping of Optically Active Defects in Hexagonal Boron Nitride. Nano Letters, 2019, 19, 2516-2523.	4.5	63
57	Fluorescent Nanodiamonds as Versatile Intracellular Temperature Sensors. Chimia, 2019, 73, 73.	0.3	11
58	Single-molecule sensing of peptides and nucleic acids by engineered aerolysin nanopores. Nature Communications, 2019, 10, 4918.	5.8	74
59	Detecting topological variations of DNA at single-molecule level. Nature Communications, 2019, 10, 3.	5.8	59
60	Supervised learning to quantify amyloidosis in whole brains of an Alzheimerâ€™s disease mouse model acquired with optical projection tomography. Biomedical Optics Express, 2019, 10, 3041.	1.5	12
61	A Nanoscopy of 2D materials. , 2019, , .		0
62	Orthogonal Tip-to-Tip Nanocapillary Alignment Allows for Easy Detection of Fluorescent Emitters in Femtomolar Concentrations. Nano Letters, 2018, 18, 3165-3171.	4.5	2
63	Imaging of Optically Active Defects with Nanometer Resolution. Nano Letters, 2018, 18, 1739-1744.	4.5	61
64	Transverse Detection of DNA in a MoS2 Nanopore. Biophysical Journal, 2018, 114, 180a.	0.2	11
65	Centimeter-Sized Single-Orientation Monolayer Hexagonal Boron Nitride With or Without Nanovoids. Nano Letters, 2018, 18, 1205-1212.	4.5	40
66	Single step synthesis of Schottky-like hybrid graphene - titania interfaces for efficient photocatalysis. Scientific Reports, 2018, 8, 8154.	1.6	14
67	Combining PALM and SOFI for quantitative imaging of focal adhesions in living cells. , 2017, , .		3
68	Geometrical Effect in 2D Nanopores. Nano Letters, 2017, 17, 4223-4230.	4.5	87
69	Investigating Focal Adhesion Substructures by Localization Microscopy. Biophysical Journal, 2017, 113, 2508-2518.	0.2	20
70	Complementarity of PALM and SOFI for super-resolution live-cell imaging of focal adhesions. Nature Communications, 2016, 7, 13693.	5.8	77
71	Revealing Gâ€proteinâ€coupled receptor oligomerization at the singleâ€molecule level through a nanoscopic lens: methods, dynamics and biological function. FEBS Journal, 2016, 283, 1197-1217.	2.2	61
72	Single-layer MoS2 nanopores as nanopower generators. Nature, 2016, 536, 197-200.	13.7	830

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73	Single Molecule Localization and Discrimination of DNAâ€“Protein Complexes by Controlled Translocation Through Nanocapillaries. Nano Letters, 2016, 16, 7882-7890.	4.5	34
74	On characterizing protein spatial clusters with correlation approaches. Scientific Reports, 2016, 6, 31164.	1.6	9
75	Observation of ionic Coulomb blockade inÂnanopores. Nature Materials, 2016, 15, 850-855.	13.3	175
76	Molybdenum Disulfide Nanopores: Why 3 Atoms are Better than One?. Biophysical Journal, 2015, 108, 489a.	0.2	0
77	Investigating Cellular Focal Adhesions on Nano-Patterned Substrates with Dual Color Photo-Activated Localization Microscopy. Biophysical Journal, 2015, 108, 359a.	0.2	1
78	Single florescent nanodiamond in a three dimensional ABEL trap. Scientific Reports, 2015, 5, 16669.	1.6	10
79	Correlated Atomic Force Microscopy and Single Molecule Localization Microscopy. Microscopy and Microanalysis, 2015, 21, 1625-1626.	0.2	0
80	Accounting for Limited Detection Efficiency and Localization Precision in Cluster Analysis in Single Molecule Localization Microscopy. PLoS ONE, 2015, 10, e0118767.	1.1	12
81	Large-area MoS ₂ grown using H ₂ S as the sulphur source. 2D Materials, 2015, 2, 044005.	2.0	78
82	The emergence of nanopores in next-generation sequencing. Nanotechnology, 2015, 26, 074003.	1.3	76
83	High-Resolution Correlative Microscopy: Bridging the Gap between Single Molecule Localization Microscopy and Atomic Force Microscopy. Nano Letters, 2015, 15, 4896-4904.	4.5	81
84	Electrochemical Reaction in Single Layer MoS₂: Nanopores Opened Atom by Atom. Nano Letters, 2015, 15, 3431-3438.	4.5	209
85	Large-Area Epitaxial Monolayer MoS₂. ACS Nano, 2015, 9, 4611-4620.	7.3	712
86	Identification of single nucleotides in MoS2 nanopores. Nature Nanotechnology, 2015, 10, 1070-1076.	15.6	409
87	Relevance of the Drag Force during Controlled Translocation of a DNAâ€“Protein Complex through a Glass Nanocapillary. Nano Letters, 2015, 15, 7118-7125.	4.5	22
88	ComEA Is Essential for the Transfer of External DNA into the Periplasm in Naturally Transformable Vibrio cholerae Cells. PLoS Genetics, 2014, 10, e1004066.	1.5	107
89	High throughput second harmonic imaging for label-free biological applications. Optics Express, 2014, 22, 31102.	1.7	43
90	Light Generation and Harvesting in a van der Waals Heterostructure. ACS Nano, 2014, 8, 3042-3048.	7.3	389

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91	Nanopore Integrated Nanogaps for DNA Detection. Nano Letters, 2014, 14, 244-249.	4.5	63
92	Measurement of the Position-Dependent Electrophoretic Force on DNA in a Glass Nanocapillary. Nano Letters, 2014, 14, 6606-6613.	4.5	25
93	Probing the size of proteins with glass nanopores. Nanoscale, 2014, 6, 14380-14387.	2.8	69
94	Probing Rotational and Translational Diffusion of Nanodoublers in Living Cells on Microsecond Time Scales. Nano Letters, 2014, 14, 2552-2557.	4.5	29
95	Progress in quantitative single-molecule localization microscopy. Histochemistry and Cell Biology, 2014, 142, 5-17.	0.8	78
96	Electron Spin Resonance of Nitrogen-Vacancy Defects Embedded in Single Nanodiamonds in an ABEL Trap. Nano Letters, 2014, 14, 5335-5341.	4.5	33
97	Shrinking Nanocapillaries to Low Noise Nanopores for Single Molecule Detection. Biophysical Journal, 2014, 106, 633a.	0.2	0
98	Combination of Optical Tweezers with Nanocapillaries as System for Estimation of DNA/Ligand Interactions. Biophysical Journal, 2014, 106, 393a.	0.2	0
99	Atomically Thin Molybdenum Disulfide Nanopores with High Sensitivity for DNA Translocation. ACS Nano, 2014, 8, 2504-2511.	7.3	404
100	Challenges in quantitative single molecule localization microscopy. FEBS Letters, 2014, 588, 3595-3602.	1.3	78
101	Detecting the translocation of DNA through a nanopore using graphene nanoribbons. Nature Nanotechnology, 2013, 8, 939-945.	15.6	332
102	Enhancement of Second Harmonic Signal in Nanofabricated Cones. Nano Letters, 2013, 13, 6048-6054.	4.5	35
103	MosaicIA: an ImageJ/Fiji plugin for spatial pattern and interaction analysis. BMC Bioinformatics, 2013, 14, 349.	1.2	71
104	Enlightening G-protein-coupled receptors on the plasma membrane using super-resolution photoactivated localization microscopy. Biochemical Society Transactions, 2013, 41, 191-196.	1.6	26
105	Controllable Shrinking and Shaping of Glass Nanocapillaries under Electron Irradiation. Nano Letters, 2013, 13, 1717-1723.	4.5	53
106	Ultrasensitive photodetectors based on monolayer MoS2. Nature Nanotechnology, 2013, 8, 497-501.	15.6	4,202
107	DNA Translocation through Low-Noise Glass Nanopores. ACS Nano, 2013, 7, 11255-11262.	7.3	90
108	Detection of RNAP-DNA complexes using solid state nanopores. , 2013, 2013, 4106-9.		4

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109	Alkaline niobate nanowires as opto-mechanical probes. Proceedings of SPIE, 2012, , .	0.8	1
110	Micro-fabrication process for small transport devices of layered manganite. Journal of Applied Physics, 2012, 111, 07E129.	1.1	1
111	Cell Type-specific Î²2-Adrenergic Receptor Clusters Identified Using Photoactivated Localization Microscopy Are Not Lipid Raft Related, but Depend on Actin Cytoskeleton Integrity. Journal of Biological Chemistry, 2012, 287, 16768-16780.	1.6	76
112	Investigating the Impact of Photo-Blinking on Photo Activated Localization Microscopy: From Single Molecules to Cell Membrane Receptors. Biophysical Journal, 2012, 102, 724a.	0.2	1
113	Nanopore Detection of Single Molecule RNAPâ€“DNA Transcription Complex. Nano Letters, 2012, 12, 1157-1164.	4.5	78
114	Identification of the factors affecting co-localization precision for quantitative multicolor localization microscopy. Optical Nanoscopy, 2012, 1, 9.	4.0	35
115	Fast and automatic processing of multi-level events in nanopore translocation experiments. Nanoscale, 2012, 4, 4916.	2.8	141
116	Nonlinear Optical Response in Single Alkaline Niobate Nanowires. Nano Letters, 2011, 11, 2517-2521.	4.5	144
117	Identification of clustering artifacts in photoactivated localization microscopy. Nature Methods, 2011, 8, 527-528.	9.0	197
118	Quantitative Photo Activated Localization Microscopy: Unraveling the Effects of Photoblinking. PLoS ONE, 2011, 6, e22678.	1.1	252
119	Single-layer MoS2 transistors. Nature Nanotechnology, 2011, 6, 147-150.	15.6	12,612
120	ssDNA Binding Reveals the Atomic Structure of Graphene. Langmuir, 2010, 26, 18078-18082.	1.6	81
121	Photoactivatable Fluorescent Protein mEos2 Displays Repeated Photoactivation after a Long-Lived Dark State in the Red Photoconverted Form. Journal of Physical Chemistry Letters, 2010, 1, 1506-1510.	2.1	87
122	Beta amyloid and hyperphosphorylated tau deposits in the pancreas in type 2 diabetes. Neurobiology of Aging, 2010, 31, 1503-1515.	1.5	179
123	Fabrication of 10 nm diameter hydrocarbon nanopores. Applied Physics Letters, 2008, 93, 183101.	1.5	27
124	Controlling DNA Capture and Propagation through Artificial Nanopores. Nano Letters, 2007, 7, 2824-2830.	4.5	132
125	Tunable nanowire nonlinear optical probe. Nature, 2007, 447, 1098-1101.	13.7	544
126	ZnOâ^'Al2O3and ZnOâ^'TiO2Coreâ^'Shell Nanowire Dye-Sensitized Solar Cells. Journal of Physical Chemistry B, 2006, 110, 22652-22663.	1.2	686

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127	Beta-amyloid deposition and Alzheimer's type changes induced by Borrelia spirochetes. Neurobiology of Aging, 2006, 27, 228-236.	1.5	172
128	Optical trapping and integration of semiconductor nanowire assemblies in water. Nature Materials, 2006, 5, 97-101.	13.3	399
129	Study of DNA in â€œGlasslike Stateâ€•by Atomic Force Microscopy: Importance of Substrates. Japanese Journal of Applied Physics, 2006, 45, 2345-2348.	0.8	4
130	Characterization of atomic force microscope probes at low temperatures. Journal of Applied Physics, 2003, 94, 4210-4214.	1.1	7
131	Low noise current-to-voltage converter and vibration damping system for a low-temperature ultrahigh vacuum scanning tunneling microscope. Review of Scientific Instruments, 2003, 74, 1016-1021.	0.6	18
132	A low-temperature ultrahigh vacuum atomic force microscope for biological applications. Review of Scientific Instruments, 2003, 74, 1022-1026.	0.6	16
133	Study of Probes and Substrates for Low Temperature Atomic Force Microscopy and Biological Applications. Acta Physica Polonica A, 2003, 104, 373-380.	0.2	1
134	Niobates Nanowires: Synthesis, Characterization and Applications. , 0, , .		2