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	Single-layer MoS2 transistors. Nature Nanotechnology, 2011, 6, 147-150.	15.6	12,612
2	Ultrasensitive photodetectors based on monolayer MoS2. Nature Nanotechnology, 2013, 8, 497-501.	15.6	4,202
3	Single-layer MoS2 nanopores as nanopower generators. Nature, 2016, 536, 197-200.	13.7	830
4	Large-Area Epitaxial Monolayer MoS₂. ACS Nano, 2015, 9, 4611-4620.	7.3	712
5	ZnOâˆ'Al2O3and ZnOâˆ'TiO2Coreâˆ'Shell Nanowire Dye-Sensitized Solar Cells. Journal of Physical Chemistry B, 2006, 110, 22652-22663.	1.2	686
6	Tunable nanowire nonlinear optical probe. Nature, 2007, 447, 1098-1101.	13.7	544
7	Identification of single nucleotides in MoS2 nanopores. Nature Nanotechnology, 2015, 10, 1070-1076.	15.6	409
8	Atomically Thin Molybdenum Disulfide Nanopores with High Sensitivity for DNA Translocation. ACS Nano, 2014, 8, 2504-2511.	7.3	404
9	Optical trapping and integration of semiconductor nanowire assemblies in water. Nature Materials, 2006, 5, 97-101.	13.3	399
10	Light Generation and Harvesting in a van der Waals Heterostructure. ACS Nano, 2014, 8, 3042-3048.	7.3	389
11	Detecting the translocation of DNA through a nanopore using graphene nanoribbons. Nature Nanotechnology, 2013, 8, 939-945.	15.6	332
12	2D materials as an emerging platform for nanopore-based power generation. Nature Reviews Materials, 2019, 4, 588-605.	23.3	253
13	Quantitative Photo Activated Localization Microscopy: Unraveling the Effects of Photoblinking. PLoS ONE, 2011, 6, e22678.	1.1	252
14	Logic-in-memory based on an atomically thin semiconductor. Nature, 2020, 587, 72-77.	13.7	243
15	Electrochemical Reaction in Single Layer MoS₂: Nanopores Opened Atom by Atom. Nano Letters, 2015, 15, 3431-3438.	4.5	209
16	Identification of clustering artifacts in photoactivated localization microscopy. Nature Methods, 2011, 8, 527-528.	9.0	197
17	Parameter-free image resolution estimation based on decorrelation analysis. Nature Methods, 2019, 16, 918-924.	9.0	197
18	Beta amyloid and hyperphosphorylated tau deposits in the pancreas in type 2 diabetes. Neurobiology of Aging, 2010, 31, 1503-1515.	1.5	179

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19	Observation of ionic Coulomb blockade inÂnanopores. Nature Materials, 2016, 15, 850-855.	13.3	175
20	Beta-amyloid deposition and Alzheimer's type changes induced by Borrelia spirochetes. Neurobiology of Aging, 2006, 27, 228-236.	1.5	172
21	Nonlinear Optical Response in Single Alkaline Niobate Nanowires. Nano Letters, 2011, 11, 2517-2521.	4.5	144
22	Fast and automatic processing of multi-level events in nanopore translocation experiments. Nanoscale, 2012, 4, 4916.	2.8	141
23	Controlling DNA Capture and Propagation through Artificial Nanopores. Nano Letters, 2007, 7, 2824-2830.	4.5	132
24	Light-Enhanced Blue Energy Generation Using MoS2 Nanopores. Joule, 2019, 3, 1549-1564.	11.7	127
25	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
26	Wafer-scale MOCVD growth of monolayer MoS2 on sapphire and SiO2. Nano Research, 2019, 12, 2646-2652.	5.8	104
27	DNA Translocation through Low-Noise Glass Nanopores. ACS Nano, 2013, 7, 11255-11262.	7.3	90
28	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
29	Geometrical Effect in 2D Nanopores. Nano Letters, 2017, 17, 4223-4230.	4.5	87
30	Fabrication and practical applications of molybdenum disulfide nanopores. Nature Protocols, 2019, 14, 1130-1168.	5.5	84
31	ssDNA Binding Reveals the Atomic Structure of Graphene. Langmuir, 2010, 26, 18078-18082.	1.6	81
32	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
33	Transverse Detection of DNA Using a MoS₂ Nanopore. Nano Letters, 2019, 19, 9075-9083.	4.5	81
34	Nanopore Detection of Single Molecule RNAPâ€“DNA Transcription Complex. Nano Letters, 2012, 12, 1157-1164.	4.5	78
35	Progress in quantitative single-molecule localization microscopy. Histochemistry and Cell Biology, 2014, 142, 5-17.	0.8	78
36	Challenges in quantitative single molecule localization microscopy. FEBS Letters, 2014, 588, 3595-3602.	1.3	78

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37	Large-area MoS ₂ grown using H ₂ S as the sulphur source. 2D Materials, 2015, 2, 044005.	2.0	78
38	Complementarity of PALM and SOFI for super-resolution live-cell imaging of focal adhesions. Nature Communications, 2016, 7, 13693.	5.8	77
39	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
40	The emergence of nanopores in next-generation sequencing. Nanotechnology, 2015, 26, 074003.	1.3	76
41	Single-molecule sensing of peptides and nucleic acids by engineered aerolysin nanopores. Nature Communications, 2019, 10, 4918.	5.8	74
42	MosaicIA: an ImageJ/Fiji plugin for spatial pattern and interaction analysis. BMC Bioinformatics, 2013, 14, 349.	1.2	71
43	Probing the size of proteins with glass nanopores. Nanoscale, 2014, 6, 14380-14387.	2.8	69
44	Nanopore Integrated Nanogaps for DNA Detection. Nano Letters, 2014, 14, 244-249.	4.5	63
45	Wide-Field Spectral Super-Resolution Mapping of Optically Active Defects in Hexagonal Boron Nitride. Nano Letters, 2019, 19, 2516-2523.	4.5	63
46	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
47	Imaging of Optically Active Defects with Nanometer Resolution. Nano Letters, 2018, 18, 1739-1744.	4.5	61
48	Detecting topological variations of DNA at single-molecule level. Nature Communications, 2019, 10, 3.	5.8	59
49	Aerolysin nanopores decode digital information stored in tailored macromolecular analytes. Science Advances, 2020, 6, .	4.7	57
50	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
51	Waveguide-PAINT offers an open platform for large field-of-view super-resolution imaging. Nature Communications, 2019, 10, 1267.	5.8	54
52	Controllable Shrinking and Shaping of Glass Nanocapillaries under Electron Irradiation. Nano Letters, 2013, 13, 1717-1723.	4.5	53
53	Direct observation of water-mediated single-proton transport between hBN surface defects. Nature Nanotechnology, 2020, 15, 598-604.	15.6	52
54	High throughput second harmonic imaging for label-free biological applications. Optics Express, 2014, 22, 31102.	1.7	43

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55	Centimeter-Sized Single-Orientation Monolayer Hexagonal Boron Nitride With or Without Nanovoids. Nano Letters, 2018, 18, 1205-1212.	4.5	40
56	Identification of the factors affecting co-localization precision for quantitative multicolor localization microscopy. Optical Nanoscopy, 2012, 1, 9.	4.0	35
57	Enhancement of Second Harmonic Signal in Nanofabricated Cones. Nano Letters, 2013, 13, 6048-6054.	4.5	35
58	Self-Blinking Dyes Unlock High-Order and Multiplane Super-Resolution Optical Fluctuation Imaging. ACS Nano, 2020, 14, 9156-9165.	7.3	35
59	Single Molecule Localization and Discrimination of DNAâ€“Protein Complexes by Controlled Translocation Through Nanocapillaries. Nano Letters, 2016, 16, 7882-7890.	4.5	34
60	Electron Spin Resonance of Nitrogen-Vacancy Defects Embedded in Single Nanodiamonds in an ABEL Trap. Nano Letters, 2014, 14, 5335-5341.	4.5	33
61	Waferâ€Scale Fabrication of Nanopore Devices for Singleâ€Molecule DNA Biosensing using MoS₂. Small Methods, 2020, 4, 2000072.	4.6	32
62	Time-Resolved Scanning Ion Conductance Microscopy for Three-Dimensional Tracking of Nanoscale Cell Surface Dynamics. ACS Nano, 2021, 15, 17613-17622.	7.3	31
63	Probing Rotational and Translational Diffusion of Nanodoublers in Living Cells on Microsecond Time Scales. Nano Letters, 2014, 14, 2552-2557.	4.5	29
64	Engineering Optically Active Defects in Hexagonal Boron Nitride Using Focused Ion Beam and Water. ACS Nano, 2022, 16, 3695-3703.	7.3	28
65	Fabrication of 10 nm diameter hydrocarbon nanopores. Applied Physics Letters, 2008, 93, 183101.	1.5	27
66	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
67	Measurement of the Position-Dependent Electrophoretic Force on DNA in a Glass Nanocapillary. Nano Letters, 2014, 14, 6606-6613.	4.5	25
68	Facile Production of Hexagonal Boron Nitride Nanoparticles by Cryogenic Exfoliation. Nano Letters, 2019, 19, 5417-5422.	4.5	25
69	Polymer Coatings to Minimize Protein Adsorption in Solidâ€State Nanopores. Small Methods, 2020, 4, 2000177.	4.6	25
70	Correlative 3D microscopy of single cells using super-resolution and scanning ion-conductance microscopy. Nature Communications, 2021, 12, 4565.	5.8	25
71	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
72	Spectral cross-cumulants for multicolor super-resolved SOFI imaging. Nature Communications, 2020, 11, 3023.	5.8	21

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73	Superconducting 2D NbS₂ Grown Epitaxially by Chemical Vapor Deposition. ACS Nano, 2021, 15, 18403-18410.	7.3	21
74	Investigating Focal Adhesion Substructures by Localization Microscopy. Biophysical Journal, 2017, 113, 2508-2518.	0.2	20
75	Super-resolved Optical Mapping of Reactive Sulfur-Vacancies in Two-Dimensional Transition Metal Dichalcogenides. ACS Nano, 2021, 15, 7168-7178.	7.3	20
76	Low-Power Artificial Neural Network Perceptron Based on Monolayer MoS₂. ACS Nano, 2022, 16, 3684-3694.	7.3	20
77	High Performance Semiconducting Nanosheets <i>via</i> a Scalable Powder-Based Electrochemical Exfoliation Technique. ACS Nano, 2022, 16, 5719-5730.	7.3	20
78	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
79	Microscopic Detection Analysis of Single Molecules in MoS₂ Membrane Nanopores. ACS Nano, 2020, 14, 16131-16139.	7.3	17
80	A low-temperature ultrahigh vacuum atomic force microscope for biological applications. Review of Scientific Instruments, 2003, 74, 1022-1026.	0.6	16
81	High-speed multiplane structured illumination microscopy of living cells using an image-splitting prism. Nanophotonics, 2020, 9, 143-148.	2.9	15
82	Identifying microbial species by single-molecule DNA optical mapping and resampling statistics. NAR Genomics and Bioinformatics, 2020, 2, lqz007.	1.5	15
83	Single step synthesis of Schottky-like hybrid graphene - titania interfaces for efficient photocatalysis. Scientific Reports, 2018, 8, 8154.	1.6	14
84	Recent Advances and Prospects in the Research of Nascent Adhesions. Frontiers in Physiology, 2020, 11, 574371.	1.3	14
85	Electrochemical Functionalization of Selectively Addressed MoS₂ Nanoribbons for Sensor Device Fabrication. ACS Applied Nano Materials, 2021, 4, 1076-1084.	2.4	14
86	Zeroâ€Bias Powerâ€Detector Circuits based on MoS₂ Fieldâ€Effect Transistors on Waferâ€Scale Flexible Substrates. Advanced Materials, 2022, 34, e2108469.	11.1	14
87	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
88	Pressure-Induced Enlargement and Ionic Current Rectification in Symmetric Nanopores. Nano Letters, 2020, 20, 8089-8095.	4.5	13
89	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
90	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

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91	Direct Growth of Hexagonal Boron Nitride on Photonic Chips for High-Throughput Characterization. ACS Photonics, 2021, 8, 2033-2040.	3.2	13
92	Accounting for Limited Detection Efficiency and Localization Precision in Cluster Analysis in Single Molecule Localization Microscopy. PLoS ONE, 2015, 10, e0118767.	1.1	12
93	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
94	Transverse Detection of DNA in a MoS2 Nanopore. Biophysical Journal, 2018, 114, 180a.	0.2	11
95	Waveguide-Based Platform for Large-FOV Imaging of Optically Active Defects in 2D Materials. ACS Photonics, 2019, 6, 3100-3107.	3.2	11
96	Fluorescent Nanodiamonds as Versatile Intracellular Temperature Sensors. Chimia, 2019, 73, 73.	0.3	11
97	Towards artificial mechanosensing. Nature Materials, 2020, 19, 1043-1044.	13.3	11
98	Single florescent nanodiamond in a three dimensional ABEL trap. Scientific Reports, 2015, 5, 16669.	1.6	10
99	Nanocapillary confinement of imidazolium based ionic liquids. Nanoscale, 2020, 12, 8867-8874.	2.8	10
100	Stable Al₂O₃ Encapsulation of MoS₂â€FETs Enabled by CVD Grown hâ€BN. Advanced Electronic Materials, 2022, 8, .	2.6	10
101	On characterizing protein spatial clusters with correlation approaches. Scientific Reports, 2016, 6, 31164.	1.6	9
102	2D MoS₂ nanopores: ionic current blockade height for clustering DNA events. 2D Materials, 2019, 6, 045011.	2.0	8
103	Anomalous interfacial dynamics of single proton charges in binary aqueous solutions. Science Advances, 2021, 7, eabg8568.	4.7	8
104	Wetting of nanopores probed with pressure. Physical Chemistry Chemical Physics, 2021, 23, 4975-4987.	1.3	8
105	Characterization of atomic force microscope probes at low temperatures. Journal of Applied Physics, 2003, 94, 4210-4214.	1.1	7
106	Addendum: Parameter-free image resolution estimation based on decorrelation analysis. Nature Methods, 2020, 17, 1061-1063.	9.0	6
107	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
108	Nanoscale Selective Passivation of Electrodes Contacting a 2D Semiconductor. Advanced Functional Materials, 2020, 30, 1907860.	7.8	5

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109	Prospects of Observing Ionic Coulomb Blockade in Artificial Ion Confinements. Entropy, 2020, 22, 1430.	1.1	5
110	High resolution optical projection tomography platform for multispectral imaging of the mouse gut. Biomedical Optics Express, 2021, 12, 3619.	1.5	5
111	Three-step, transfer-free growth of MoS₂/WS₂/graphene vertical van der Waals heterostructure. 2D Materials, 2022, 9, 025030.	2.0	5
112	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
113	Detection of RNAP-DNA complexes using solid state nanopores. , 2013, 2013, 4106-9.		4
114	Combining PALM and SOFI for quantitative imaging of focal adhesions in living cells. , 2017, , .		3
115	Adaptive optics enables multimode 3D super-resolution microscopy via remote focusing. Nanophotonics, 2021, 10, 2451-2458.	2.9	3
116	Niobates Nanowires: Synthesis, Characterization and Applications. , 0, , .		2
117	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
118	Parameter-free rendering of single-molecule localization microscopy data for parameter-free resolution estimation. Communications Biology, 2021, 4, 550.	2.0	2
119	Statistical distortion of supervised learning predictions in optical microscopy induced by image compression. Scientific Reports, 2022, 12, 3464.	1.6	2
120	Alkaline niobate nanowires as opto-mechanical probes. Proceedings of SPIE, 2012, , .	0.8	1
121	Micro-fabrication process for small transport devices of layered manganite. Journal of Applied Physics, 2012, 111, 07E129.	1.1	1
122	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
123	Investigating Cellular Focal Adhesions on Nano-Patterned Substrates with Dual Color Photo-Activated Localization Microscopy. Biophysical Journal, 2015, 108, 359a.	0.2	1
124	Decoding Digital Information Stored in Polymer by Nanopore. Biophysical Journal, 2021, 120, 98a.	0.2	1
125	MoS₂/graphene Lateral Heterostructure Field Effect Transistors. , 2021, , .		1
126	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

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127	Rhesus Blood Typing within a Few Seconds by Packing-Enhanced Nanoscattering on Individual Erythrocytes. Analytical Chemistry, 2021, 93, 15142-15149.	3.2	1
128	Shrinking Nanocapillaries to Low Noise Nanopores for Single Molecule Detection. Biophysical Journal, 2014, 106, 633a.	0.2	0
129	Combination of Optical Tweezers with Nanocapillaries as System for Estimation of DNA/Ligand Interactions. Biophysical Journal, 2014, 106, 393a.	0.2	0
130	Molybdenum Disulfide Nanopores: Why 3 Atoms are Better than One?. Biophysical Journal, 2015, 108, 489a.	0.2	0
131	Correlated Atomic Force Microscopy and Single Molecule Localization Microscopy. Microscopy and Microanalysis, 2015, 21, 1625-1626.	0.2	0
132	Unbalanced Ion Flushing Effect in MoS2 Nanopore Biosensors. Biophysical Journal, 2020, 118, 158a.	0.2	0
133	Low Hysteresis MoS2-FET Enabled by CVD-Grown h-BN Encapsulation. , 2021, , .		0
134	A Nanoscopy of 2D materials. , 2019, , .		0