Romana Schirhagl

List of Publications by Year
in descending order

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Version: 2024-02-01

83 papers	4,900 citations	117453 34 h-index	91712 69 g-index
85 all docs	85 docs citations	85 times ranked	5937 citing authors

#	Article	IF	Citations
1	Diamond Color Centers in Diamonds for Chemical and Biochemical Analysis and Visualization. Analytical Chemistry, 2022, 94, 225-249.	3.2	18
2	Following Polymer Degradation with Nanodiamond Magnetometry. ACS Sensors, 2022, 7, 123-130.	4.0	8
3	Applying NV center-based quantum sensing to study intracellular free radical response upon viral infections. Redox Biology, 2022, 52, 102279.	3.9	25
4	Quantum Sensing of Free Radicals in Primary Human Dendritic Cells. Nano Letters, 2022, 22, 1818-1825.	4.5	42
5	Nanoscale MRI for Selective Labeling and Localized Free Radical Measurements in the Acrosomes of Single Sperm Cells. ACS Nano, 2022, 16, 10701-10710.	7.3	19
6	Insight into a Fenton-like Reaction Using Nanodiamond Based Relaxometry. Nanomaterials, 2022, 12, 2422.	1.9	6
7	Not all cells are created equal â€“ endosomal escape in fluorescent nanodiamonds in different cells. Nanoscale, 2021, 13, 13294-13300.	2.8	13
8	Synthesis of biological based hennotannic acid-based salts over porous bismuth coordination polymer with phosphorous acid tags. RSC Advances, 2021, 11, 2141-2157.	1.7	9
9	Membrane-Based Scanning Force Microscopy. Physical Review Applied, 2021, 15, .	1.5	38
10	Recent advances in natural polymer-based hydroxyapatite scaffolds: Properties and applications. European Polymer Journal, 2021, 148, 110360.	2.6	73
11	Quantum monitoring of cellular metabolic activities in single mitochondria. Science Advances, 2021, 7, .	4.7	69
12	Novel uric acid-based nano organocatalyst with phosphorous acid tags: Application for synthesis of new biologically-interest pyridines with indole moieties via a cooperative vinylogous anomeric based oxidation. Molecular Catalysis, 2021, 507, 111549.	1.0	16
13	pH Sensitive Dextran Coated Fluorescent Nanodiamonds as a Biomarker for HeLa Cells Endocytic Pathway and Increased Cellular Uptake. Nanomaterials, 2021, 11, 1837.	1.9	8
14	Pharmacodynamic Studies of Fluorescent Diamond Carriers of Doxorubicin in Liver Cancer Cells and Colorectal Cancer Organoids. Nanotechnology, Science and Applications, 2021, Volume 14, 139-159.	4.6	2
15	Male subfertility and oxidative stress. Redox Biology, 2021, 46, 102071.	3.9	54
16	Drug delivery and antimicrobial studies of chitosan-alginate based hydroxyapatite bioscaffolds formed by the Casein micelle assisted synthesis. Materials Chemistry and Physics, 2021, 272, 125019.	2.0	12
17	Fluorescent Nanodiamonds for Detecting Free-Radical Generation in Real Time during Shear Stress in Human Umbilical Vein Endothelial Cells. ACS Sensors, 2021, 6, 4349-4359.	4.0	20
18	Targeting Nanodiamonds to the Nucleus in Yeast Cells. Nanomaterials, 2020, 10, 1962.	1.9	11

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19	Micro Versus Macro â€“ The Effect of Environmental Confinement on Cellular Nanoparticle Uptake. Frontiers in Bioengineering and Biotechnology, 2020, 8, 869.	2.0	3
20	Influence of sonication on the physicochemical and biological characteristics of selenium-substituted hydroxyapatites. New Journal of Chemistry, 2020, 44, 17453-17464.	1.4	7
21	Polyelectrolyte Multilayer Films Modification with Ag and rGO Influences Platelets Activation and Aggregate Formation under In Vitro Blood Flow. Nanomaterials, 2020, 10, 859.	1.9	8
22	High Temperature Treatment of Diamond Particles Toward Enhancement of Their Quantum Properties. Frontiers in Physics, 2020, 8, .	1.0	11
23	The Fate of Lipid-Coated and Uncoated Fluorescent Nanodiamonds during Cell Division in Yeast. Nanomaterials, 2020, 10, 516.	1.9	18
24	Evaluation of the Oxidative Stress Response of Aging Yeast Cells in Response to Internalization of Fluorescent Nanodiamond Biosensors. Nanomaterials, 2020, 10, 372.	1.9	15
25	Influence of diamond crystal orientation on the interaction with biological matter. Carbon, 2020, 162, 1-12.	5.4	15
26	Effect of medium and aggregation on antibacterial activity of nanodiamonds. Materials Science and Engineering C, 2020, 112, 110930.	3.8	20
27	Nanodiamond Relaxometry-Based Detection of Free-Radical Species When Produced in Chemical Reactions in Biologically Relevant Conditions. ACS Sensors, 2020, 5, 3862-3869.	4.0	53
28	Smart probe for simultaneous detection of copper ion, pyrophosphate, and alkaline phosphatase in vitro and in clinical samples. Analytical and Bioanalytical Chemistry, 2019, 411, 6475-6485.	1.9	18
29	Nanodiamond for Sample Preparation in Proteomics. Analytical Chemistry, 2019, 91, 9800-9805.	3.2	12
30	Nanodiamond uptake in colon cancer cells: the influence of direction and trypsin-EDTA treatment. Nanoscale, 2019, 11, 17357-17367.	2.8	19
31	Cell Uptake of Lipidâ€Coated Diamond. Particle and Particle Systems Characterization, 2019, 36, 1900116.	1.2	11
32	Optical Detection of Intracellular Quantities Using Nanoscale Technologies. Accounts of Chemical Research, 2019, 52, 1739-1749.	7.6	25
33	Facile in situ generation of bismuth tungstate nanosheet-multiwalled carbon nanotube composite as unconventional affinity material for quartz crystal microbalance detection of antibiotics. Journal of Hazardous Materials, 2019, 373, 50-59.	6.5	20
34	Nanosensors for diagnosis with optical, electric and mechanical transducers. RSC Advances, 2019, 9, 6793-6803.	1.7	103
35	Non enzymatic fluorometric determination of glucose by using quenchable g-C3N4 quantum dots. Mikrochimica Acta, 2019, 186, 779.	2.5	10
36	Nanodiamonds and Their Applications in Cells. Small, 2018, 14, e1704263.	5.2	152

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37	Nanodiamonds for In Vivo Applications. Small, 2018, 14, e1703838.	5.2	138
38	Two-dimensional nanomaterial based sensors for heavy metal ions. Mikrochimica Acta, 2018, 185, 478.	2.5	48
39	Toward Using Fluorescent Nanodiamonds To Study Chronological Aging in Saccharomyces cerevisiae. Analytical Chemistry, 2018, 90, 13506-13513.	3.2	20
40	Interaction of nanodiamonds with bacteria. Nanoscale, 2018, 10, 17117-17124.	2.8	42
41	De Novo Designed Proteins for Colloidal Stabilization and Improvement of Cellular Uptake. Biophysical Journal, 2018, 114, 362a.	0.2	1
42	The Response of HeLa Cells to Fluorescent NanoDiamond Uptake. Sensors, 2018, 18, 355.	2.1	40
43	Shape and crystallographic orientation of nanodiamonds for quantum sensing. Physical Chemistry Chemical Physics, 2017, 19, 10748-10752.	1.3	39
44	Application of Triphenylammonium Tricyanomethanide as an Efficient and Recyclable Nanostructured Molten-Salt Catalyst for the Synthesis of N-Benzylidene-2-arylimidazo[1,2-a]pyridin-3-amines. Synlett, 2017, 28, 1173-1176.	1.0	8
45	Transferring the Selectivity of a Natural Antibody into a Molecularly Imprinted Polymer. Methods in Molecular Biology, 2017, 1575, 325-340.	0.4	0
46	The interaction of fluorescent nanodiamond probes with cellular media. Mikrochimica Acta, 2017, 184, 1001-1009.	2.5	69
47	Nanodiamonds as multi-purpose labels for microscopy. Scientific Reports, 2017, 7, 720.	1.6	79
48	Synthesis of novel magnetic nanoparticles with urea or urethane moieties: Applications as catalysts in the Strecker synthesis of Î±â€aminonitriles. Applied Organometallic Chemistry, 2017, 31, e3883.	1.7	15
49	{[1,4-DHPyrazine][C(CN)3]2} as a New Nano Molten Salt Catalyst for the Synthesis of Novel Piperazine Based bis(4-hydroxy-2H-chromen-2-one) Derivatives. Catalysis Letters, 2017, 147, 2083-2099.	1.4	10
50	Nanoparticle discrimination based on wavelength and lifetime-multiplexed cathodoluminescence microscopy. Nanoscale, 2017, 9, 12727-12734.	2.8	17
51	Generally Applicable Transformation Protocols for Fluorescent Nanodiamond Internalization into Cells. Scientific Reports, 2017, 7, 5862.	1.6	36
52	Recombinant Protein Polymers for Colloidal Stabilization and Improvement of Cellular Uptake of Diamond Nanosensors. Analytical Chemistry, 2017, 89, 12812-12820.	3.2	29
53	Gravimetric Viral Diagnostics: QCM Based Biosensors for Early Detection of Viruses. Chemosensors, 2017, 5, 7.	1.8	98
54	Viruses, Artificial Viruses and Virusâ€Based Structures for Biomedical Applications. Advanced Healthcare Materials, 2016, 5, 1386-1400.	3.9	30

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55	Switchable, self-assembled CdS nanomaterials embedded in liquid crystal cell for high performance static memory device. Materials Letters, 2016, 169, 37-41.	1.3	19
56	Bioinspired surfaces and materials. Chemical Society Reviews, 2016, 45, 234-236.	18.7	27
57	Optical and Electrical Investigation of ZnO Nano-Wire Array to Micro-Flower from Hierarchical Nano-Rose Structures. Journal of Nanoscience and Nanotechnology, 2016, 16, 400-409.	0.9	4
58	Applications of Molecularly Imprinted Polymer Nanoparticles and Their Advances toward Industrial Use: A Review. Analytical Chemistry, 2016, 88, 250-261.	3.2	320
59	Improving surface and defect center chemistry of fluorescent nanodiamonds for imaging purposesâ€"a review. Analytical and Bioanalytical Chemistry, 2015, 407, 7521-7536.	1.9	85
60	Influence of ZnO nanostructures in liquid crystal interfaces for bistable switching applications. Applied Surface Science, 2015, 357, 1499-1510.	3.1	22
61	Nanometer-scale isotope analysis of bulk diamond by atom probe tomography. Diamond and Related Materials, 2015, 60, 60-65.	1.8	8
62	Investigation of Surface Magnetic Noise by Shallow Spins in Diamond. Physical Review Letters, 2014, 112, 147602.	2.9	148
63	Bioapplications for Molecularly Imprinted Polymers. Analytical Chemistry, 2014, 86, 250-261.	3.2	310
64	Nitrogen-Vacancy Centers in Diamond: Nanoscale Sensors for Physics and Biology. Annual Review of Physical Chemistry, 2014, 65, 83-105.	4.8	1,121
65	Advanced vapor recognition materials for selective and fast responsive surface acoustic wave sensors: A review. Analytica Chimica Acta, 2013, 787, 36-49.	2.6	134
66	Temperature variation dielectric behavior of TiO2 nanocabbages and doped W-182(AFLC). Journal of Luminescence, 2013, 136, 278-284.	1.5	13
67	Efficient one-step novel synthesis of ZnO nanospikes to nanoflakes doped OAFLCs (W-182) host: Optical and dielectric response. Applied Surface Science, 2013, 280, 405-417.	3.1	7
68	Immunosensing with artificial antibodies in organic solvents or complex matrices. Sensors and Actuators B: Chemical, 2012, 173, 585-590.	4.0	28
69	Spin properties of very shallow nitrogen vacancy defects in diamond. Physical Review B, 2012, 86, .	1.1	159
70	Separation of bacteria with imprinted polymeric films. Analyst, The, 2012, 137, 1495.	1.7	60
71	Microfluidic capture and release of bacteria in a conical nanopore array. Lab on A Chip, 2012, 12, 558-561.	3.1	43
72	Natural and Biomimetic Materials for the Detection of Insulin. Analytical Chemistry, 2012, 84, 3908-3913.	3.2	93

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73	Surface-imprinted polymers in microfluidic devices. Science China Chemistry, 2012, 55, 469-483.	4.2	43
74	Glucose-Driven Fuel Cell Constructed from Enzymes and Filter Paper. Journal of Chemical Education, 2011, 88, 1283-1286.	1.1	13
75	Atrazine detection based on antibody replicas. Journal of Materials Chemistry, 2011, 21, 14594.	6.7	30
76	Particle sorting using a porous membrane in a microfluidic device. Lab on A Chip, 2011, 11, 238-245.	3.1	120
77	Microfluidic purification and analysis of hematopoietic stem cells from bone marrow. Lab on A Chip, 2011, 11, 3130.	3.1	39
78	Chemosensors for Viruses Based on Artificial Immunoglobulin Copies. Advanced Materials, 2010, 22, 2078-2081.	11.1	82
79	Comparing biomimetic and biological receptors for insulin sensing. Chemical Communications, 2010, 46, 3128.	2.2	53
80	Antibodies and Their Replicae in Microfluidic Sensor Systemsâ€"Labelfree Quality Assessment in Food Chemistry and Medicine. Sensor Letters, 2010, 8, 399-404.	0.4	21
81	Sensors for Healthcare Monitoring - Proteins, Viruses and Blood-Group-Typing. IFMBE Proceedings, 2009, , 325-328.	0.2	1
82	Sensing Picornaviruses Using Molecular Imprinting Techniques on a Quartz Crystal Microbalance. Analytical Chemistry, 2009, 81, 5320-5326.	3.2	123
83	Detection of viruses with molecularly imprinted polymers integrated on a microfluidic biochip using contact-less dielectric microsensors. Lab on A Chip, 2009, 9, 3549.	3.1	89