

Christine Selhuber-Unkel

List of Publications by Year in descending order

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Version: 2024-02-01

69
papers

2,973
citations

279778

23
h-index

168376

53
g-index

76
all docs

76
docs citations

76
times ranked

4208
citing authors

#	ARTICLE	IF	CITATIONS
1	<i>In Vivo</i> Anomalous Diffusion and Weak Ergodicity Breaking of Lipid Granules. Physical Review Letters, 2011, 106, 048103.	7.8	553
2	Quantitative Analysis of Single Particle Trajectories: Mean Maximal Excursion Method. Biophysical Journal, 2010, 98, 1364-1372.	0.5	188
3	Cell Adhesion Strength Is Controlled by Intermolecular Spacing of Adhesion Receptors. Biophysical Journal, 2010, 98, 543-551.	0.5	187
4	Quantitative Optical Trapping of Single Gold Nanorods. Nano Letters, 2008, 8, 2998-3003.	9.1	171
5	Plasmodium Sporozoite Motility Is Modulated by the Turnover of Discrete Adhesion Sites. Cell Host and Microbe, 2009, 6, 551-562.	11.0	163
6	Superdiffusion dominates intracellular particle motion in the supercrowded cytoplasm of pathogenic Acanthamoeba castellanii. Scientific Reports, 2015, 5, 11690.	3.3	159
7	Impact of Local versus Global Ligand Density on Cellular Adhesion. Nano Letters, 2011, 11, 1469-1476.	9.1	149
8	Cooperativity in Adhesion Cluster Formation during Initial Cell Adhesion. Biophysical Journal, 2008, 95, 5424-5431.	0.5	114
9	Characterisation and use of Î²-lactoglobulin fibrils for microencapsulation of lipophilic ingredients and oxidative stability thereof. Journal of Food Engineering, 2014, 143, 53-61.	5.2	98
10	Cellular Unbinding Forces of Initial Adhesion Processes on Nanopatterned Surfaces Probed with Magnetic Tweezers. Nano Letters, 2006, 6, 398-402.	9.1	93
11	Handheld imaging photonic crystal biosensor for multiplexed, label-free protein detection. Biomedical Optics Express, 2015, 6, 3724.	2.9	79
12	Cardiomyocyte behavior on biodegradable polyurethane/gold nanocomposite scaffolds under electrical stimulation. Materials Science and Engineering C, 2016, 59, 10-18.	7.3	78
13	Living Materials Herald a New Era in Soft Robotics. Advanced Materials, 2019, 31, e1807747.	21.0	78
14	Rapid Reversible Photoswitching of Integrinâ€Mediated Adhesion at the Singleâ€Cell Level. Advanced Materials, 2016, 28, 1799-1802.	21.0	71
15	Spectral Content of a Single Non-Brownian Trajectory. Physical Review X, 2019, 9, .	8.9	65
16	Variety in intracellular diffusion during the cell cycle. Physical Biology, 2009, 6, 025015.	1.8	60
17	Photocatalytic properties of titania thin films prepared by sputtering versus evaporation and aging of induced oxygen vacancy defects. Applied Catalysis B: Environmental, 2016, 180, 362-371.	20.2	54
18	Highâ€Frequency Mechanostimulation of Cell Adhesion. Angewandte Chemie - International Edition, 2017, 56, 225-229.	13.8	38

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19	Bioactive Carbon-Based Hybrid 3D Scaffolds for Osteoblast Growth. ACS Applied Materials & Interfaces, 2018, 10, 43874-43886.	8.0	32
20	Influence of the polydispersity of pH 2 and pH 3.5 beta-lactoglobulin amyloid fibril solutions on analytical methods. European Polymer Journal, 2019, 120, 109211.	5.4	32
21	Automated analysis of soft hydrogel microindentation: Impact of various indentation parameters on the measurement of Young's modulus. PLoS ONE, 2019, 14, e0220281.	2.5	30
22	Microengineered Hollow Graphene Tube Systems Generate Conductive Hydrogels with Extremely Low Filler Concentration. Nano Letters, 2021, 21, 3690-3697.	9.1	29
23	Adhesion of living cells to abutment materials, dentin, and adhesive luting cement with different surface qualities. Dental Materials, 2016, 32, 1524-1535.	3.5	27
24	Transient superdiffusion of polydisperse vacuoles in highly motile amoeboid cells. Journal of Chemical Physics, 2019, 150, 144901.	3.0	24
25	Biomimetic Carbon Fiber Systems Engineering: A Modular Design Strategy To Generate Biofunctional Composites from Graphene and Carbon Nanofibers. ACS Applied Materials & Interfaces, 2019, 11, 5325-5335.	8.0	24
26	A Tunable Scaffold of Microtubular Graphite for 3D Cell Growth. ACS Applied Materials & Interfaces, 2016, 8, 14980-14985.	8.0	23
27	Magnetic particle mapping using magnetoelectric sensors as an imaging modality. Scientific Reports, 2019, 9, 2086.	3.3	23
28	Measuring Cell Adhesion Forces: Theory and Principles. Methods in Molecular Biology, 2011, 736, 355-377.	0.9	20
29	Influence of the PDMS substrate stiffness on the adhesion of <i>Acanthamoeba castellanii</i> . Beilstein Journal of Nanotechnology, 2014, 5, 1393-1398.	2.8	20
30	In vitro adhesion of <i>Acanthamoeba castellanii</i> to soft contact lenses depends on water content and disinfection procedure. Contact Lens and Anterior Eye, 2014, 37, 262-266.	1.7	20
31	3D Hydrogels Containing Interconnected Microchannels of Subcellular Size for Capturing Human Pathogenic <i>Acanthamoeba Castellanii</i> . ACS Biomaterials Science and Engineering, 2019, 5, 1784-1792.	5.2	19
32	Arachidonic Acid Randomizes Endothelial Cell Motion and Regulates Adhesion and Migration. PLoS ONE, 2011, 6, e25196.	2.5	19
33	Tuning Surface Energies with Nanopatterned Substrates. Nano Letters, 2006, 6, 267-270.	9.1	18
34	The threshold of amyloid aggregation of beta-lactoglobulin: Relevant factor combinations. Journal of Food Engineering, 2020, 283, 110005.	5.2	18
35	Intensity interrogation near cutoff resonance for label-free cellular profiling. Scientific Reports, 2016, 6, 24685.	3.3	17
36	Impact of Cleaning Procedures on Adhesion of Living Cells to Three Abutment Materials. International Journal of Oral and Maxillofacial Implants, 2017, 32, 976-984.	1.4	17

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37	Bioactive compounds immobilized on Ti and TiNbHf: AFM-based investigations of biofunctionalization efficiency and cell adhesion. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 136, 704-711.	5.0	13
38	Adhesion forces and mechanics in mannose-mediated acanthamoeba interactions. <i>PLoS ONE</i> , 2017, 12, e0176207.	2.5	13
39	Tunable 3D Hydrogel Microchannel Networks to Study Confined Mammalian Cell Migration. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100625.	7.6	12
40	Material-based three-dimensional imaging with nanostructured surfaces. <i>Applied Physics Letters</i> , 2013, 102, 011116.	3.3	11
41	Cell adhesion on NiTi thin film sputter-deposited meshes. <i>Materials Science and Engineering C</i> , 2016, 59, 611-616.	7.3	10
42	Systematically Designed Periodic Electrophoretic Deposition for Decorating 3D Carbon-Based Scaffolds with Bioactive Nanoparticles. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 4393-4404.	5.2	10
43	Thermoresponsive Hydrogels with Improved Actuation Function by Interconnected Microchannels. <i>Advanced Intelligent Systems</i> , 2022, 4, 2100081.	6.1	10
44	Cellular properties of human gingival fibroblasts on novel and conventional implant-abutment materials. <i>Dental Materials</i> , 2022, 38, 540-548.	3.5	10
45	Mapping of magnetic nanoparticles and cells using thin film magnetoelectric sensors based on the delta-E effect. <i>Sensors and Actuators A: Physical</i> , 2020, 309, 112023.	4.1	9
46	Microfabricated bioelectrodes on self-expandable NiTi thin film devices for implants and diagnostic instruments. <i>Biosensors and Bioelectronics</i> , 2020, 153, 112034.	10.1	9
47	Reinforcement of integrin-mediated T-Lymphocyte adhesion by TNF-induced Inside-out Signaling. <i>Scientific Reports</i> , 2016, 6, 30452.	3.3	7
48	Photonic crystal slabs for surface contrast enhancement in microscopy of transparent objects. <i>Optics Express</i> , 2012, 20, 14451.	3.4	6
49	Controlled Self-Assembly of Hexagonal Nanoparticle Patterns on Nanotopographies. <i>Langmuir</i> , 2015, 31, 9261-9265.	3.5	6
50	High-frequency Mechanostimulation of Cell Adhesion. <i>Angewandte Chemie</i> , 2017, 129, 231-235.	2.0	6
51	Tracking Cell-Nanoparticle Interactions. <i>Journal of Biomedical Nanotechnology</i> , 2009, 5, 634-640.	1.1	4
52	Quantifying and pinpointing sources of noise in optical tweezers experiments. , 2009, , .		4
53	Human blood microfluidic test chip for imaging, label-free biosensor. <i>Microsystem Technologies</i> , 2016, 22, 1513-1518.	2.0	4
54	Detection and characterization of attenuated multimode waveguiding in SiO ₂ slabs using photoemission electron microscopy. <i>Physical Review B</i> , 2018, 98, .	3.2	3

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55	Migration of Microparticle-Containing Amoeba through Constricted Environments. ACS Biomaterials Science and Engineering, 2020, 6, 889-897.	5.2	3
56	Unidirectional transport of superparamagnetic beads and biological cells along oval magnetic elements. Applied Physics Letters, 2021, 118, 232405.	3.3	3
57	Photometric aptasensor using biofunctionalized photonic crystal slabs. , 2013, , .		3
58	A Co-Polymerizable Linker for the Covalent Attachment of Fibronectin Makes pHEMA Hydrogels Cell-Adhesive. Gels, 2022, 8, 258.	4.5	3
59	Quantifying force transmission through fibroblasts: changes of traction forces under external shearing. European Biophysics Journal, 2021, , 1.	2.2	2
60	Noncovalent Spiropyran Coatings for Photoinduced Wettability Switching. Journal of Nanomaterials, 2017, 2017, 1-6.	2.7	1
61	Influence of carrier materials and coatings on retinal pigment epithelium cultivation and functions. Experimental Eye Research, 2022, 219, 109063.	2.6	1
62	Mimicking the Cellular Environment: Effects of Elastic Nanopatterned Substrates on Integrin-Mediated Cellular Interactions. Biophysical Journal, 2010, 98, 729a.	0.5	0
63	Reinforcement of Integrin-Mediated T-Lymphocyte Adhesion by TNF. Biophysical Journal, 2015, 108, 98a.	0.5	0
64	Interconnected Microchannels in Hydrogels to Control Cell Adhesion and Mechanotransduction. Biophysical Journal, 2018, 114, 192a.	0.5	0
65	High-throughput micro-nanostructuring by microdroplet inkjet printing. Beilstein Journal of Nanotechnology, 2018, 9, 2372-2380.	2.8	0
66	DFG-Graduiertenkolleg 2154 – Materials for Brain: DÄ¼nnschichtbasierte Funktionsmaterialien fÄ¼r die minimal-invasive Therapie von Erkrankungen des Gehirnsâ€œ. Neuroforum, 2019, 25, 69-71.	0.3	0
67	10.1063/5.0044310.6. , 2021, , .		0
68	Control of Cell Adhesion using Hydrogel Patterning Techniques for Applications in Traction Force Microscopy. Journal of Visualized Experiments, 2022, , .	0.3	0
69	Tunable 3D Hydrogel Microchannel Networks to Study Confined Mammalian Cell Migration (Adv.) Tj ETQq1 1 0.784314 rgBT ₀ /Overlock	7.6	0