

Sarah Käster

List of Publications by Year in descending order

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98
papers

5,088
citations

136950

32
h-index

95266

68
g-index

107
all docs

107
docs citations

107
times ranked

5826
citing authors

#	ARTICLE	IF	CITATIONS
1	Ion type and valency differentially drive vimentin tetramers into intermediate filaments or higher order assemblies. <i>Soft Matter</i> , 2021, 17, 870-878.	2.7	8
2	Post-translational modifications soften vimentin intermediate filaments. <i>Nanoscale</i> , 2021, 13, 380-387.	5.6	24
3	Tuning the Mechanical Properties of Poly(Methyl Acrylate) via Surface-Functionalized Montmorillonite Nanosheets. <i>Macromolecular Materials and Engineering</i> , 2021, 306, 2000595.	3.6	5
4	The Coding and Small Non-coding Hippocampal Synaptic RNAome. <i>Molecular Neurobiology</i> , 2021, 58, 2940-2953.	4.0	10
5	Structural model of the M7G46 Methyltransferase TrmB in complex with tRNA. <i>RNA Biology</i> , 2021, 18, 2466-2479.	3.1	8
6	Vimentin intermediate filaments stabilize dynamic microtubules by direct interactions. <i>Nature Communications</i> , 2021, 12, 3799.	12.8	52
7	Multiscale mechanics and temporal evolution of vimentin intermediate filament networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	12
8	Reflections on COVID-19-Induced Online Teaching in Biophysics Courses. <i>The Biophysicist</i> , 2021, 2, 20-22.	0.3	1
9	Exploring early time points of vimentin assembly in flow by fluorescence fluctuation spectroscopy. <i>Lab on A Chip</i> , 2021, 21, 735-745.	6.0	2
10	Combined scanning small-angle X-ray scattering and holography probes multiple length scales in cell nuclei. <i>Journal of Synchrotron Radiation</i> , 2021, 28, 518-529.	2.4	1
11	Time-resolved MIET measurements of blood platelet spreading and adhesion. <i>Nanoscale</i> , 2020, 12, 21306-21315.	5.6	13
12	A minimalist model to measure interactions between proteins and synaptic vesicles. <i>Scientific Reports</i> , 2020, 10, 21086.	3.3	8
13	Tuning intermediate filament mechanics by variation of pH and ion charges. <i>Nanoscale</i> , 2020, 12, 15236-15245.	5.6	20
14	Vesicle adhesion in the electrostatic strong-coupling regime studied by time-resolved small-angle X-ray scattering. <i>Soft Matter</i> , 2020, 16, 4142-4154.	2.7	11
15	Transport and programmed release of nanoscale cargo from cells by using NETosis. <i>Nanoscale</i> , 2020, 12, 9104-9115.	5.6	15
16	A comparative analysis of the mobility of 45 proteins in the synaptic bouton. <i>EMBO Journal</i> , 2020, 39, e104596.	7.8	29
17	Large field-of-view scanning small-angle X-ray scattering of mammalian cells. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 1059-1068.	2.4	1
18	Scanning Small-Angle X-ray Scattering and Coherent X-ray Imaging of Cells. <i>Topics in Applied Physics</i> , 2020, , 405-433.	0.8	1

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19	Direct characterization of cytoskeletal reorganization during blood platelet spreading. <i>Progress in Biophysics and Molecular Biology</i> , 2019, 144, 166-176.	2.9	22
20	A beamline-compatible STED microscope for combined visible-light and X-ray studies of biological matter. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1144-1151.	2.4	1
21	Lateral Subunit Coupling Determines Intermediate Filament Mechanics. <i>Physical Review Letters</i> , 2019, 123, 188102.	7.8	27
22	Vimentin Intermediate Filaments Undergo Irreversible Conformational Changes during Cyclic Loading. <i>Nano Letters</i> , 2019, 19, 7349-7356.	9.1	36
23	Human blood platelets contract in perpendicular direction to shear flow. <i>Soft Matter</i> , 2019, 15, 2009-2019.	2.7	14
24	Mutation-induced alterations of intra-filament subunit organization in vimentin filaments revealed by SAXS. <i>Soft Matter</i> , 2019, 15, 1999-2008.	2.7	14
25	Helical Superstructure of Intermediate Filaments. <i>Physical Review Letters</i> , 2019, 122, 098101.	7.8	5
26	STXM analysis: Preparing to go live @ 750â€¦Hz. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	1
27	Cyclic olefin copolymer as an X-ray compatible material for microfluidic devices. <i>Lab on A Chip</i> , 2018, 18, 171-178.	6.0	33
28	Scanning Small-Angle-X-Ray Scattering for Imaging Biological Cells. <i>Microscopy and Microanalysis</i> , 2018, 24, 336-339.	0.4	1
29	Correlative microscopy approach for biology using X-ray holography, X-ray scanning diffraction and STED microscopy. <i>Nature Communications</i> , 2018, 9, 3641.	12.8	33
30	Dynamics of force generation by spreading platelets. <i>Soft Matter</i> , 2018, 14, 6571-6581.	2.7	35
31	Effect of ionic strength on the structure and elongational kinetics of vimentin filaments. <i>Soft Matter</i> , 2018, 14, 8445-8454.	2.7	13
32	Viscoelastic properties of vimentin originate from nonequilibrium conformational changes. <i>Science Advances</i> , 2018, 4, eaat1161.	10.3	52
33	Rapid Acquisition of X-ray Scattering Data from Droplet-Encapsulated Protein Systems. <i>ChemPhysChem</i> , 2017, 18, 1220-1223.	2.1	14
34	Nonlinear Loading-Rate-Dependent Force Response of Individual Vimentin Intermediate Filaments to Applied Strain. <i>Physical Review Letters</i> , 2017, 118, 048101.	7.8	84
35	Imaging of Biological Materials and Cells by X-ray Scattering and Diffraction. <i>ACS Nano</i> , 2017, 11, 8542-8559.	14.6	57
36	Election of the German Committee for Research with Synchrotron Radiation (KFS). <i>Synchrotron Radiation News</i> , 2017, 30, 32-32.	0.8	0

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37	Competitive Counterion Binding Regulates the Aggregation Onset of Vimentin Intermediate Filaments. <i>Israel Journal of Chemistry</i> , 2016, 56, 614-621.	2.3	17
38	The filament forming reactions of vimentin tetramers studied in a serial-inlet microflow device by small angle x-ray scattering. <i>Biomicrofluidics</i> , 2016, 10, 024108.	2.4	20
39	Topographic Cues Reveal Two Distinct Spreading Mechanisms in Blood Platelets. <i>Scientific Reports</i> , 2016, 6, 22357.	3.3	34
40	Lateral association and elongation of vimentin intermediate filament proteins: A time-resolved light-scattering study. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 11152-11157.	7.1	31
41	Emerging Investigators 2016: discovery science meets technology. <i>Lab on A Chip</i> , 2016, 16, 2974-2976.	6.0	0
42	Calpain-mediated cleavage of collapsin response mediator protein-2 drives acute axonal degeneration. <i>Scientific Reports</i> , 2016, 6, 37050.	3.3	27
43	Following DNA Compaction During the Cell Cycle by X-ray Nanodiffraction. <i>ACS Nano</i> , 2016, 10, 10661-10670.	14.6	8
44	Impact of the crystallization condition on importin- β^2 conformation. <i>Acta Crystallographica Section D: Structural Biology</i> , 2016, 72, 705-717.	2.3	12
45	X-rays Reveal the Internal Structure of Keratin Bundles in Whole Cells. <i>ACS Nano</i> , 2016, 10, 3553-3561.	14.6	32
46	Contribution of myosin II activity to cell spreading dynamics. <i>Soft Matter</i> , 2016, 12, 500-507.	2.7	5
47	Intermediate filament mechanics in vitro and in the cell: from coiled coils to filaments, fibers and networks. <i>Current Opinion in Cell Biology</i> , 2015, 32, 82-91.	5.4	134
48	Physical properties of cytoplasmic intermediate filaments. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 3053-3064.	4.1	85
49	The Structure of Gold-Nanoparticle Networks Cross-Linked by Di- and Multifunctional RAFT Oligomers. <i>Langmuir</i> , 2015, 31, 10573-10582.	3.5	15
50	Assembly of Simple Epithelial Keratin Filaments: Deciphering the Ion Dependence in Filament Organization. <i>Biomacromolecules</i> , 2015, 16, 3313-3321.	5.4	20
51	Open channel block of NMDA receptors by diphenhydramine. <i>Neuropharmacology</i> , 2015, 99, 459-470.	4.1	12
52	Editorial "Special issue on mechanobiology. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 2975-2976.	4.1	1
53	Revealing the Structure of Stereociliary Actin by X-ray Nanoimaging. <i>ACS Nano</i> , 2014, 8, 12228-12237.	14.6	19
54	Mechanics of Individual Keratin Bundles in Living Cells. <i>Biophysical Journal</i> , 2014, 107, 2693-2699.	0.5	38

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55	Direct Observation of Subunit Exchange along Mature Vimentin Intermediate Filaments. <i>Biophysical Journal</i> , 2014, 107, 2923-2931.	0.5	49
56	Scanning X-Ray Nanodiffraction on Living Eukaryotic Cells in Microfluidic Environments. <i>Physical Review Letters</i> , 2014, 112, .	7.8	71
57	Tracking reactions in microflow. <i>Microfluidics and Nanofluidics</i> , 2014, 16, 39-45.	2.2	10
58	Micro-topography influences blood platelet spreading. <i>Soft Matter</i> , 2014, 10, 2365-2371.	2.7	11
59	Dynamics of counterion-induced attraction between vimentin filaments followed in microfluidic drops. <i>Lab on A Chip</i> , 2014, 14, 2681-2687.	6.0	34
60	Impact of ion valency on the assembly of vimentin studied by quantitative small angle X-ray scattering. <i>Soft Matter</i> , 2014, 10, 2059-2068.	2.7	26
61	Microfluidic devices for X-ray studies on hydrated cells. <i>Lab on A Chip</i> , 2013, 13, 212-215.	6.0	63
62	Influence of microfluidic shear on keratin networks in living cells. <i>New Journal of Physics</i> , 2013, 15, 045025.	2.9	9
63	Microfluidicsâ€™ from fundamental research to industrial applications. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 110301.	2.8	3
64	New Developments in Hard X-ray Fluorescence Microscopy for In-situ Investigations of Trace Element Distributions in Aqueous Systems of Soil Colloids. <i>Journal of Physics: Conference Series</i> , 2013, 463, 012005.	0.4	2
65	X-ray nano-diffraction on cytoskeletal networks. <i>New Journal of Physics</i> , 2012, 14, 085013.	2.9	43
66	Vimentin networks at tunable ion-concentration in microfluidic drops. <i>Biomicrofluidics</i> , 2012, 6, 022009.	2.4	27
67	Intermediate Filaments in Small Configuration Spaces. <i>Physical Review Letters</i> , 2012, 108, 088101.	7.8	62
68	X-RAY STUDIES OF BIOLOGICAL MATTER IN MICROFLUIDIC ENVIRONMENTS. <i>Modern Physics Letters B</i> , 2012, 26, 1230018.	1.9	37
69	Mobility Gradient Induces Cross-Streamline Migration of Semiflexible Polymers. <i>ACS Macro Letters</i> , 2012, 1, 541-545.	4.8	44
70	Promethazine inhibits NMDA-induced currents â€™ New pharmacological aspects of an old drug. <i>Neuropharmacology</i> , 2012, 63, 280-291.	4.1	15
71	Force field evolution during human blood platelet activation. <i>Journal of Cell Science</i> , 2012, 125, 3914-20.	2.0	55
72	Tunable Silk: Using Microfluidics to Fabricate Silk Fibers with Controllable Properties. <i>Biomacromolecules</i> , 2011, 12, 1504-1511.	5.4	154

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73	Dynamics of intermediate filament assembly followed in micro-flow by small angle X-ray scattering. <i>Lab on A Chip</i> , 2011, 11, 708.	6.0	70
74	Intranasal Application of Xenon Reduces Opioid Requirement and Postoperative Pain in Patients Undergoing Major Abdominal Surgery. <i>Anesthesiology</i> , 2011, 115, 398-407.	2.5	30
75	Anucleate platelets generate progeny. <i>Blood</i> , 2010, 115, 3801-3809.	1.4	164
76	Orientation of biomolecular assemblies in a microfluidic jet. <i>New Journal of Physics</i> , 2010, 12, 043056.	2.9	12
77	Xenon-induced changes in CNS sensitization to pain. <i>NeuroImage</i> , 2010, 49, 720-730.	4.2	26
78	Nanomechanics of vimentin intermediate filament networks. <i>Soft Matter</i> , 2010, 6, 1910.	2.7	28
79	An in vitro model system for cytoskeletal confinement. <i>Cytoskeleton</i> , 2009, 66, 771-776.	4.4	19
80	Influence of Internal Capsid Pressure on Viral Infection by Phage λ . <i>Biophysical Journal</i> , 2009, 97, 1525-1529.	0.5	34
81	Droplets: a picoliter array in a microfluidic device. <i>Lab on A Chip</i> , 2009, 9, 44-49.	6.0	229
82	Internal Capsid-Pressure Dependence of Viral Infection by Phage Lambda. <i>Biophysical Journal</i> , 2009, 96, 421a.	0.5	0
83	Droplet-Based Microfluidic Platforms for the Encapsulation and Screening of Mammalian Cells and Multicellular Organisms. <i>Chemistry and Biology</i> , 2008, 15, 427-437.	6.0	620
84	Characterization of single semiflexible filaments under geometric constraints. <i>European Physical Journal E</i> , 2008, 25, 439-449.	1.6	32
85	Drop-based microfluidic devices for encapsulation of single cells. <i>Lab on A Chip</i> , 2008, 8, 1110.	6.0	470
86	Biocompatible surfactants for water-in-fluorocarbon emulsions. <i>Lab on A Chip</i> , 2008, 8, 1632.	6.0	589
87	Etomidate reduces glutamate uptake in rat cultured glial cells: involvement of PKA. <i>British Journal of Pharmacology</i> , 2008, 155, 925-933.	5.4	18
88	Controlled encapsulation of single-cells into monodisperse picolitre drops. <i>Lab on A Chip</i> , 2008, 8, 1262.	6.0	444
89	An In Situ Study of Collagen Self-Assembly Processes. <i>Biomacromolecules</i> , 2008, 9, 199-207.	5.4	56
90	FLUCTUATIONS OF SINGLE CONFINED ACTIN FILAMENTS. <i>Biophysical Reviews and Letters</i> , 2007, 02, 155-166.	0.8	18

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91	Highly Packed and Oriented DNA Mesophases Identified Using in Situ Microfluidic X-ray Microdiffraction. <i>Biomacromolecules</i> , 2007, 8, 2167-2172.	5.4	48
92	Visualization of Flow-Aligned Type I Collagen Self-Assembly in Tunable pH Gradients. <i>Langmuir</i> , 2007, 23, 357-359.	3.5	54
93	Rapid increase of glial glutamate uptake via blockade of the protein kinase A pathway. <i>Glia</i> , 2007, 55, 1699-1707.	4.9	32
94	Rapid Prototyping of X-Ray Microdiffraction Compatible Continuous Microflow Foils. <i>Small</i> , 2007, 3, 96-100.	10.0	30
95	Evolution of DNA compaction in microchannels. <i>Journal of Physics Condensed Matter</i> , 2006, 18, S639-S652.	1.8	24
96	Microfluidics of soft matter investigated by small-angle X-ray scattering. <i>Journal of Synchrotron Radiation</i> , 2005, 12, 745-750.	2.4	61
97	Brownian motion of actin filaments in confining microchannels. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S4091-S4104.	1.8	52
98	Microaligned collagen matrices by hydrodynamic focusing: controlling the pH-induced self-assembly. <i>Materials Research Society Symposia Proceedings</i> , 2005, 898, 1.	0.1	0