Philip Kollmannsberger

List of Publications by Year
in descending order

50 papers	3,363 citations	201674 27 h-index	233421 45 g-index
61 all docs	61 docs citations	61 times ranked	4681 citing authors

#	Article	IF	Citations
1	Linear and Nonlinear Rheology of Living Cells. Annual Review of Materials Research, 2011, 41, 75-97.	9.3	336
2	Architecture of the osteocyte network correlates with bone material quality. Journal of Bone and Mineral Research, 2013, 28, 1837-1845.	2.8	285
3	Geometry as a Factor for Tissue Growth: Towards Shape Optimization of Tissue Engineering Scaffolds. Advanced Healthcare Materials, 2013, 2, 186-194.	7.6	264
4	Vinculin Facilitates Cell Invasion into Three-dimensional Collagen Matrices. Journal of Biological Chemistry, 2010, 285, 13121-13130.	3.4	169
5	How Linear Tension Converts to Curvature: Geometric Control of Bone Tissue Growth. PLoS ONE, 2012, 7, e36336.	2.5	169
6	BaHigh-force magnetic tweezers with force feedback for biological applications. Review of Scientific Instruments, 2007, 78, 114301.	1.3	164
7	Efficient Classification of White Blood Cell Leukemia with Improved Swarm Optimization of Deep Features. Scientific Reports, 2020, 10, 2536.	3.3	159
8	Mechano-Coupling and Regulation of Contractility by the Vinculin Tail Domain. Biophysical Journal, 2008, 94, 661-670.	0.5	157
9	Effect of surface pre-treatments on biocompatibility of magnesium. Acta Biomaterialia, 2009, 5, 2783-2789.	8.3	155
10	Nonlinear viscoelasticity of adherent cells is controlled by cytoskeletal tension. Soft Matter, 2011, 7, 3127-3132.	2.7	124
11	Breakdown of the Endothelial Barrier Function in Tumor Cell Transmigration. Biophysical Journal, 2008, 94, 2832-2846.	0.5	107
12	The small world of osteocytes: connectomics of the lacuno-canalicular network in bone. New Journal of Physics, 2017, 19, 073019.	2.9	103
13	Tensile forces drive a reversible fibroblast-to-myofibroblast transition during tissue growth in engineered clefts. Science Advances, 2018, 4, eaao4881.	10.3	102
14	Filamin A Is Essential for Active Cell Stiffening but not Passive Stiffening under External Force. Biophysical Journal, 2009, 96, 4326-4335.	0.5	98
15	Up-Regulation of Rho/ROCK Signaling in Sarcoma Cells Drives Invasion and Increased Generation of Protrusive Forces. Molecular Cancer Research, 2008, 6, 1410-1420.	3.4	96
16	Surface tension determines tissue shape and growth kinetics. Science Advances, 2019, 5, eaav9394.	10.3	80
17	The physics of tissue patterning and extracellular matrix organisation: how cells join forces. Soft Matter, 2011, 7, 9549.	2.7	65
18	Active soft glassy rheology of adherent cells. Soft Matter, 2009, 5, 1771.	2.7	62

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19	Spatial heterogeneity in the canalicular density of the osteocyte network in human osteons. Bone Reports, 2017, 6, 101-108.	0.4	59
20	How type 1 fimbriae help Escherichia coli to evade extracellular antibiotics. Scientific Reports, 2016, 6, 18109.	3.3	47
21	Defining the Basis of Cyanine Phototruncation Enables a New Approach to Single-Molecule Localization Microscopy. ACS Central Science, 2021, 7, 1144-1155.	11.3	47
22	Towards a Connectomic Description of the Osteocyte Lacunocanalicular Network in Bone. Current Osteoporosis Reports, 2019, 17, 186-194.	3.6	44
23	Fiberâ€Assisted Molding (FAM) of Surfaces with Tunable Curvature to Guide Cell Alignment and Complex Tissue Architecture. Small, 2014, 10, 4851-4857.	10.0	41
24	Mineralization kinetics in murine trabecular bone quantified by time-lapsed in vivo micro-computed tomography. Bone, 2013, 56, 55-60.	2.9	39
25	Anchorage of Vinculin to Lipid Membranes Influences Cell Mechanical Properties. Biophysical Journal, 2009, 97, 3105-3112.	0.5	38
26	Cell sheet mechanics: How geometrical constraints induce the detachment of cell sheets from concave surfaces. Acta Biomaterialia, 2016, 45, 85-97.	8.3	38
27	Gradual conversion of cellular stress patterns into pre-stressed matrix architecture during <i>in vitro</i> tissue growth. Journal of the Royal Society Interface, 2016, 13, 20160136.	3.4	37
28	Subgroup-Independent Mapping of Renal Cell Carcinomaâ€"Machine Learning Reveals Prognostic Mitochondrial Gene Signature Beyond Histopathologic Boundaries. Frontiers in Oncology, 2021, 11, 621278.	2.8	31
29	Active zone compaction correlates with presynaptic homeostatic potentiation. Cell Reports, 2021, 37, 109770.	6.4	30
30	Bacterial filamentation accelerates colonization of adhesive spots embedded in biopassive surfaces. New Journal of Physics, 2013, 15, 125016.	2.9	29
31	Haruspex: A Neural Network for the Automatic Identification of Oligonucleotides and Protein Secondary Structure in Cryoâ€Electron Microscopy Maps. Angewandte Chemie - International Edition, 2020, 59, 14788-14795.	13.8	26
32	Coalignment of osteocyte canaliculi and collagen fibers in human osteonal bone. Journal of Structural Biology, 2017, 199, 177-186.	2.8	22
33	Shaping tissues by balancing active forces and geometric constraints. Journal Physics D: Applied Physics, 2016, 49, 053001.	2.8	21
34	Electron tomography of mouse LINC complexes at meiotic telomere attachment sites with and without microtubules. Communications Biology, 2019, 2, 376.	4.4	16
35	The Heterogeneous Mineral Content of Boneâ€"Using Stochastic Arguments and Simulations to Overcome Experimental Limitations. Journal of Statistical Physics, 2011, 144, 316-331.	1.2	14
36	FIJI Macro 3D ART VeSElecT: 3D Automated Reconstruction Tool for Vesicle Structures of Electron Tomograms. PLoS Computational Biology, 2017, 13, e1005317.	3.2	13

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37	Identifying New Potential Biomarkers in Adrenocortical Tumors Based on mRNA Expression Data Using Machine Learning. Cancers, 2021, 13, 4671.	3.7	12
38	Structural Analysis of the Caenorhabditis elegans Dauer Larval Anterior Sensilla by Focused Ion Beam-Scanning Electron Microscopy. Frontiers in Neuroanatomy, 2021, 15, 732520.	1.7	12
39	Targeted volumetric single-molecule localization microscopy of defined presynaptic structures in brain sections. Communications Biology, 2021, 4, 407.	4.4	10
40	Automated classification of synaptic vesicles in electron tomograms of C. elegans using machine learning. PLoS ONE, 2018, 13, e0205348.	2.5	8
41	Haruspex: A Neural Network for the Automatic Identification of Oligonucleotides and Protein Secondary Structure in Cryoâ€Electron Microscopy Maps. Angewandte Chemie, 2020, 132, 14898-14905.	2.0	7
42	Biological network growth in complex environments: A computational framework. PLoS Computational Biology, 2020, 16, e1008003.	3.2	5
43	DeepCLEM: automated registration for correlative light and electron microscopy using deep learning. F1000Research, 0, 9, 1275.	1.6	4
44	Detecting ice artefacts in processed macromolecular diffraction data with machine learning. Acta Crystallographica Section D: Structural Biology, 2022, 78, 187-195.	2.3	3
45	Fourier Ring Correlation and Anisotropic Kernel Density Estimation Improve Deep Learning Based SMLM Reconstruction of Microtubules. Frontiers in Bioinformatics, 2021, 1, .	2.1	2
46	Non-linear Rheology Of Collagen Type I Gels Probed On The Length Scale Of A Migrating Cell. Biophysical Journal, 2009, 96, 522a.	0.5	1
47	Biological network growth in complex environments: A computational framework. , 2020, 16, e1008003.		0
48	Biological network growth in complex environments: A computational framework. , 2020, 16, e1008003.		0
49	Biological network growth in complex environments: A computational framework. , 2020, 16, e1008003.		0
50	Biological network growth in complex environments: A computational framework. , 2020, 16, e1008003.		0