Amrinder S Nain

List of Publications by Year
in descending order

41 papers	1,494 citations	394421 19 h-index	330143 37 g-index
49 all docs	49 docs citations	49 times ranked	1820 citing authors

#	Article	IF	Citations
1	Bioprinting of growth factors onto aligned sub-micron fibrous scaffolds for simultaneous control of cell differentiation and alignment. Biomaterials, 2011, 32, 8097-8107.	11.4	179
2	Drawing suspended polymer micro-/nanofibers using glass micropipettes. Applied Physics Letters, 2006, 89, 183105.	3.3	149
3	ECM in Differentiation: A Review of Matrix Structure, Composition and Mechanical Properties. Annals of Biomedical Engineering, 2020, 48, 1071-1089.	2.5	104
4	Shape-dependent cell migration and focal adhesion organization on suspended and aligned nanofiber scaffolds. Acta Biomaterialia, 2013, 9, 7169-7177.	8.3	95
5	Dry Spinning Based Spinneret Based Tunable Engineered Parameters (STEP) Technique for Controlled and Aligned Deposition of Polymeric Nanofibers. Macromolecular Rapid Communications, 2009, 30, 1406-1412.	3.9	81
6	Suspended Micro/Nanofiber Hierarchical Biological Scaffolds Fabricated Using Non-Electrospinning STEP Technique. Langmuir, 2014, 30, 13641-13649.	3.5	73
7	Control of Cell Behavior by Aligned Micro/Nanofibrous Biomaterial Scaffolds Fabricated by Spinneretâ€Based Tunable Engineered Parameters (STEP) Technique. Small, 2008, 4, 1153-1159.	10.0	67
8	Controlling bacterial adhesion to surfaces using topographical cues: a study of the interaction of Pseudomonas aeruginosa with nanofiber-textured surfaces. Soft Matter, 2012, 8, 10254.	2.7	60
9	Role of Suspended Fiber Structural Stiffness and Curvature on Single-Cell Migration, Nucleus Shape, and Focal-Adhesion-Cluster Length. Biophysical Journal, 2014, 107, 2604-2611.	0.5	57
10	Development of a System for In Vitro Neck Muscle Force Replication in Whole Cervical Spine Experiments. Spine, 2001, 26, 2214-2219.	2.0	55
11	Cell Migration in 1D and 2D Nanofiber Microenvironments. Annals of Biomedical Engineering, 2018, 46, 392-403.	2.5	42
12	Aligned fibers direct collective cell migration to engineer closing and nonclosing wound gaps. Molecular Biology of the Cell, 2017, 28, 2579-2588.	2.1	40
13	Crosshatch nanofiber networks of tunable interfiber spacing induce plasticity in cell migration and cytoskeletal response. FASEB Journal, 2019, 33, 10618-10632.	0.5	40
14	Polymeric nanofibers: isodiametric design space and methodology for depositing aligned nanofiber arrays in single and multiple layers. Polymer Journal, 2013, 45, 695-700.	2.7	36
15	Nanonet Force Microscopy for Measuring Cell Forces. Biophysical Journal, 2016, 111, 197-207.	0.5	36
16	Cancer Protrusions on a Tightrope: Nanofiber Curvature Contrast Quantitates Single Protrusion Dynamics. ACS Nano, 2017, 11, 12037-12048.	14.6	34
17	Capturing relevant extracellular matrices for investigating cell migration. F1000Research, 2015, 4, 1408.	1.6	29
18	Direct and cell signaling-based, geometry-induced neuronal differentiation of neural stem cells. Integrative Biology (United Kingdom), 2011, 3, 1207.	1.3	27

#	Article	IF	Citations
19	Cancer Cells Sense Fibers by Coiling on them in a Curvature-Dependent Manner. IScience, 2019, 19, 905-915.	4.1	26
20	Rules of contact inhibition of locomotion for cells on suspended nanofibers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	25
21	Aligned Nanofiber Topography Directs the Tenogenic Differentiation of Mesenchymal Stem Cells. Applied Sciences (Switzerland), 2017, 7, 59.	2.5	22
22	Force-exerting perpendicular lateral protrusions in fibroblastic cell contraction. Communications Biology, 2020, 3, 390.	4.4	22
23	Bioenergetics underlying single-cell migration on aligned nanofiber scaffolds. American Journal of Physiology - Cell Physiology, 2020, 318, C476-C485.	4.6	21
24	Cell-Fiber Interactions on Aligned and Suspended Nanofiber Scaffolds. Journal of Biomaterials and Tissue Engineering, 2013, 3, 355-368.	0.1	21
25	Single Cell Forces after Electroporation. ACS Nano, 2021, 15, 2554-2568.	14.6	20
26	Effect of electrode sub-micron surface feature size on current generation of Shewanella oneidensis in microbial fuel cells. Journal of Power Sources, 2017, 347, 270-276.	7.8	17
27	Tracking the origins of size dependency in the mechanical properties of polymeric nanofibers at the atomistic scale. Polymer, 2019, 175, 118-128.	3.8	17
28	Inositol polyphosphate multikinase is a metformin target that regulates cell migration. FASEB Journal, 2019, 33, 14137-14146.	0.5	16
29	Nanonet force microscopy for measuring forces in single smooth muscle cells of the human aorta. Molecular Biology of the Cell, 2017, 28, 1894-1900.	2.1	14
30	Tunneling Nanotubes between Cells Migrating in ECM Mimicking Fibrous Environments. Cancers, 2022, 14, 1989.	3.7	9
31	Dynamic Heterochromatin States in Anisotropic Nuclei of Cells on Aligned Nanofibers. ACS Nano, 2022, 16, 10754-10767.	14.6	9
32	Design of Nanofiber Coatings for Mitigation of Microbial Adhesion: Modeling and Application to Medical Catheters. ACS Applied Materials & Interfaces, 2018, 10, 15477-15486.	8.0	8
33	Aligned assembly of nano and microscale polystyrene tubes with controlled morphology. Polymer, 2014, 55, 3008-3014.	3.8	7
34	Aligned and suspended fiber force probes for drug testing at single cell resolution. Biofabrication, 2014, 6, 045006.	7.1	7
35	Integrating nanofibers with biochemical gradients to investigate physiologically-relevant fibroblast chemotaxis. Lab on A Chip, 2019, 19, 3641-3651.	6.0	6
36	Cell Fragment Formation, Migration, and Force Exertion on Extracellular Mimicking Fiber Nanonets. Advanced Biology, 2021, 5, e2000592.	2.5	5

#	Article	IF	Citations
37	Quantitative biophysical metrics for rapid evaluation of ovarian cancer metastatic potential. Molecular Biology of the Cell, 2022, 33, mbcE21080419.	2.1	4
38	MISP: The missing link between extracellular matrix and astral microtubules. Cell Cycle, 2013, 12, 1821-1821.	2.6	3
39	Design of Fiber Networks for Studying Metastatic Invasion. Advances in Experimental Medicine and Biology, 2018, 1092, 289-318.	1.6	2
40	Note: Aligned deposition and modal characterization of micron and submicron poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622 T	1.3	1
41	Dry spinning polymeric nano/microfiber arrays using glass micropipettes with controlled porosities and fiber diameters. , 2007, , .		0