Yu M Efremov

List of Publications by Year
in descending order

50 papers	1,300 citations	471509 17 h-index	377865 34 g-index
54 all docs	54 docs citations	54 times ranked	1484 citing authors

#	Article	IF	Citations
1	Measuring nanoscale viscoelastic parameters of cells directly from AFM force-displacement curves. Scientific Reports, 2017, 7, 1541.	3.3	174
2	Measuring viscoelasticity of soft biological samples using atomic force microscopy. Soft Matter, 2020, 16, 64-81.	2.7	143
3	Terahertz radiation and the skin: a review. Journal of Biomedical Optics, 2021, 26, .	2.6	81
4	Distinct impact of targeted actin cytoskeleton reorganization on mechanical properties of normal and malignant cells. Biochimica Et Biophysica Acta - Molecular Cell Research, 2015, 1853, 3117-3125.	4.1	67
5	Mechanical properties of fibroblasts depend on level of cancer transformation. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 1013-1019.	4.1	62
6	Application of the Johnsonâ€“Kendallâ€“Roberts model in AFM-based mechanical measurements on cells and gel.. Colloids and Surfaces B: Biointerfaces, 2015, 134, 131-139.	5.0	57
7	Anisotropy vs isotropy in living cell indentation with AFM. Scientific Reports, 2019, 9, 5757.	3.3	54
8	Viscoelastic mapping of cells based on fast force volume and PeakForce Tapping. Soft Matter, 2019, 15, 5455-5463.	2.7	50
9	Cell attachment on poly(3-hydroxybutyrate)-poly(ethylene glycol) copolymer produced by Azotobacter chroococcum 7B. BMC Biochemistry, 2013, 14, 12.	4.4	49
10	Mapping heterogeneity of cellular mechanics by multi-harmonic atomic force microscopy. Nature Protocols, 2018, 13, 2200-2216.	12.0	43
11	Cell spheroid fusion: beyond liquid drops model. Scientific Reports, 2020, 10, 12614.	3.3	43
12	The effects of confluency on cell mechanical properties. Journal of Biomechanics, 2013, 46, 1081-1087.	2.1	41
13	Mechanical properties of cell sheets and spheroids: the link between single cells and complex tissues. Biophysical Reviews, 2021, 13, 541-561.	3.2	34
14	Mapping mechanical properties of living cells at nanoscale using intrinsic nanopipetteâ€“sample force interactions. Nanoscale, 2021, 13, 6558-6568.	5.6	33
15	The Terpolymer Produced by Azotobacter Chroococcum 7B: Effect of Surface Properties on Cell Attachment. PLoS ONE, 2013, 8, e57200.	2.5	32
16	Digging deeper: structural background of PEGylated fibrin gels in cell migration and lumenogenesis. RSC Advances, 2020, 10, 4190-4200.	3.6	25
17	Fibrin-based Bioinks: New Tricks from an Old Dog. International Journal of Bioprinting, 2020, 6, 269.	3.4	25
18	Chitosan-g-oligo(L,L-lactide) Copolymer Hydrogel Potential for Neural Stem Cell Differentiation. Tissue Engineering - Part A, 2020, 26, 953-963.	3.1	18

#	Article	IF	Citations
19	3D or not 3D: a guide to assess cell viability in 3D cell systems. Soft Matter, 2022, 18, 2222-2233.	2.7	18
20	Cysteine Cathepsins Inhibition Affects Their Expression and Human Renal Cancer Cell Phenotype. Cancers, 2020, 12, 1310.	3.7	17
21	3D nanomechanical mapping of subcellular and sub-nuclear structures of living cells by multi-harmonic AFM with long-tip microcantilevers. Scientific Reports, 2022, 12, 529.	3.3	17
22	Mechanical Enhancement and Kinetics Regulation of Fmocâ€Diphenylalanine Hydrogels by Thioflavinâ€...T. Angewandte Chemie - International Edition, 2021, 60, 25339-25345.	13.8	16
23	Biomechanical properties of the lens capsule: A review. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 103, 103600.	3.1	15
24	Atomic Force Microscopy Study of the Arrangement and Mechanical Properties of Astrocytic Cytoskeleton in Growth Medium. Acta Naturae, 2011, 3, 93-99.	1.7	14
25	Role of actin-binding proteins in the regulation of cellular mechanics. European Journal of Cell Biology, 2022, 101, 151241.	3.6	14
26	Viscoelasticity in simple indentation-cycle experiments: a computational study. Scientific Reports, 2020, 10, 13302.	3.3	13
27	Atomic force microscopy of animal cells: Advances and prospects. Biophysics (Russian Federation), 2011, 56, 257-267.	0.7	12
28	Nanomechanical properties of enucleated cells: contribution of the nucleus to the passive cell mechanics. Journal of Nanobiotechnology, 2020, 18, 134.	9.1	11
29	Beyond 2D: effects of photobiomodulation in 3D tissue-like systems. Journal of Biomedical Optics, 2020, 25, 1.	2.6	11
30	Cell Culture and Coculture for Oncological Research in Appropriate Microenvironments. Current Protocols in Chemical Biology, 2019, 11, e65.	1.7	10
31	Viscoelasticity and Volume of Cortical Neurons under Glutamate Excitotoxicity and Osmotic Challenges. Biophysical Journal, 2020, 119, 1712-1723.	0.5	10
32	4D Printing of Shapeâ€Memory Semiâ€Interpenetrating Polymer Networks Based On Aromatic Heterochain Polymers. Advanced Materials Technologies, 2022, 7, 2100790.	5.8	10
33	Atomic force microscopy of living and fixed Xenopus laevis embryos. Micron, 2011, 42, 840-852.	2.2	9
34	Mechanical properties of anterior lens capsule assessed with AFM and nanoindenter in relation to human aging, pseudoexfoliation syndrome, and trypan blue staining. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 112, 104081.	3.1	9
35	Thin Thermoresponsive Polymer Films for Cell Culture: Elucidating an Unexpected Thermal Phase Behavior by Atomic Force Microscopy. Langmuir, 2021, 37, 11386-11396.	3.5	7
36	Optoporation and Recovery of Living Cells under Au Nanoparticle Layer-Mediated NIR-Laser Irradiation. ACS Applied Nano Materials, 2021, 4, 13206-13217.	5.0	7

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37	A time-shift correction for extraction of viscoelastic parameters from ramp-hold AFM experiments. Japanese Journal of Applied Physics, 2021, 60, SE1002.	1.5	6
38	Multicomponent Non-Woven Fibrous Mats with Balanced Processing and Functional Properties. Polymers, 2020, 12, 1911.	4.5	5
39	A Hydrophobic Derivative of Ciprofloxacin as a New Photoinitiator of Two-Photon Polymerization: Synthesis and Usage for the Formation of Biocompatible Polylactide-Based 3D Scaffolds. Polymers, 2021, 13, 3385.	4.5	5
40	A defined road to tracheal reconstruction: laser structuring and cell support for rapid clinic translation. Stem Cell Research and Therapy, 2022, 13, .	5.5	5
41	The Mechanical Properties, Secondary Structure, and Osteogenic Activity of Photopolymerized Fibroin. Polymers, 2020, 12, 646.	4.5	4
42	A Collagen Basketweave from the Giant Squid Mantle as a Robust Scaffold for Tissue Engineering. Marine Drugs, 2021, 19, 679.	4.6	4
43	Numerical Modelling of Multicellular Spheroid Compression: Viscoelastic Fluid vs. Viscoelastic Solid. Mathematics, 2021, 9, 2333.	2.2	3
44	Mechanical Enhancement and Kinetics Regulation of Fmocâ€•Diphenylalanine Hydrogels by Thioflavin T. Angewandte Chemie, 0, , .	2.0	3
45	Atomic force microscopy as a tool to studyXenopus laevisembryo. Journal of Physics: Conference Series, 2012, 345, 012040.	0.4	1
46	Studying the Local Young's Modulus of PC-3 Cells Via Scanning Ion-Conductance Microscopy. Biophysical Journal, 2021, 120, 162a.	0.5	1
47	Inactivation of Formin Affects Elastic Properties of Eucaryotic Cells. Microscopy and Microanalysis, 2012, 18, 164-165.	0.4	0
48	Anisotropic Mechanical Properties of Living Cells Revealed by Integrated Spinning Disk Confocal and Atomic Force Microscopy. Biophysical Journal, 2018, 114, 513a.	0.5	0
49	A mathematical model of in vitro hepatocellular cholesterol and lipoprotein metabolism for hyperlipidemia therapy. PLoS ONE, 2022, 17, e0264903.	2.5	0
50	Experimental studies of the biomechanical properties of the cornea. Vestnik Oftalmologii, 2022, 138, 124.	0.5	0