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The cytoplasm of living cells behaves as a poroelastic material

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464	Mechanical forces and feedbacks in cell motility. 2013 , 25, 550-7		28
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462	Resiliency of the plasma membrane and actin cortex to large-scale deformation. 2013 , 70, 494-514		21
461	Three-dimensional morphometric comparison of normal and apoptotic endothelial cells based on laser scanning confocal microscopy observation. 2013 , 76, 1154-62		10
460	Enhanced transcription and translation in clay hydrogel and implications for early life evolution. 2013 , 3, 3165		65
459	Cellular pressure and volume regulation and implications for cell mechanics. 2013 , 105, 609-19		110
458	Cell rheology: mush rather than machine. <i>Nature Materials</i> , 2013 , 12, 184-5	27	35
457	Spider silk: webs measure up. <i>Nature Materials</i> , 2013 , 12, 185-7	27	26
456	Optimised determination of viscoelastic properties using compliant measurement systems. 2013 , 9, 5581		7
455	Generating suspended cell monolayers for mechanobiological studies. 2013 , 8, 2516-30		35
454	Probing the compressibility of tumor cell nuclei by combined atomic force-confocal microscopy. 2013 , 10, 065002		96
453	Rho-kinase mediated cytoskeletal stiffness in skinned smooth muscle. 2013 , 115, 1540-52		11
452	The role of the actin cortex in maintaining cell shape. 2013 , 6, e26714		12
451	Regulation of T-cell receptor signaling by the actin cytoskeleton and poroelastic cytoplasm. 2013 , 256, 148-59		20
450	Physical aspects of the initial phase of endocytosis. 2013 , 88, 064701		14
449	Actin cytoskeletal defects in immunodeficiency. 2013 , 256, 282-99		79
448	An active poroelastic model for mechanochemical patterns in protoplasmic droplets of <i>Physarum polycephalum</i> . 2014 , 9, e99220		32

447	Diagrammatic analysis of nonhomogeneous diffusion. 2014 , 2014, 150826		
446	Biomechanical modelling in nanomedicine: multiscale approaches and future challenges. 2014 , 84, 1627-1645	16	
445	Host cell invasion by apicomplexan parasites: the junction conundrum. 2014 , 10, e1004273		56
444	Determination of strain-rate-dependent mechanical behavior of living and fixed osteocytes and chondrocytes using atomic force microscopy and inverse finite element analysis. 2014 , 136, 101004		12
443	Living bacteria rheology: population growth, aggregation patterns, and collective behavior under different shear flows. 2014 , 90, 022720		9
442	Instabilities in the boundary layer over a permeable, compliant wall. 2014 , 26, 084103		8
441	Stress relaxation analysis of single chondrocytes using porohyperelastic model based on AFM experiments. 2014 , 4, 054001		7
440	Exploration of mechanisms underlying the strain-rate-dependent mechanical property of single chondrocytes. 2014 , 104, 183701		17
439	Simple measurement of the apparent viscosity of a cell from only one picture: Application to cardiac stem cells. 2014 , 90, 052715		12
438	Impact of heating on passive and active biomechanics of suspended cells. 2014 , 4, 20130069		32
437	Effective governing equations for poroelastic growing media. 2014 , 67, 69-91		64
436	Dividing cells regulate their lipid composition and localization. 2014 , 156, 428-39		192
435	Auxetic nuclei in embryonic stem cells exiting pluripotency. <i>Nature Materials</i> , 2014 , 13, 638-644	27	113
434	Looking at cell mechanics with atomic force microscopy: experiment and theory. 2014 , 77, 947-58		26
433	A comparative mechanical analysis of plant and animal cells reveals convergence across kingdoms. 2014 , 107, 2237-44		25
432	Universality of the network-dynamics of the cell nucleus at high frequencies. 2014 , 10, 8737-43		15
431	Retrieving the intracellular topology from multi-scale protein mobility mapping in living cells. 2014 , 5, 4494		100
430	Chemoenvironmental modulators of fluidity in the suspended biological cell. 2014 , 10, 8031-42		11

429	Mechanics of biological networks: from the cell cytoskeleton to connective tissue. 2014 , 10, 1864-84	121
428	Interfacial stability and shape change of anisotropic endoskeleton droplets. 2014 , 10, 7647-52	32
427	Cell mechanics: principles, practices, and prospects. 2014 , 6, 371-88	170
426	Volumetric deformation of live cells induced by pressure-activated cross-membrane ion transport. 2014 , 113, 118101	37
425	FRAP in pharmaceutical research: practical guidelines and applications in drug delivery. 2014 , 31, 255-70	29
424	Nanomechanical response of bacterial cells to cationic antimicrobial peptides. 2014 , 10, 1806-15	19
423	Nanobiomechanics of living cells: a review. 2014 , 4, 20130055	64
422	The effect of macromolecular crowding on mobility of biomolecules, association kinetics, and gene expression in living cells. 2014 , 2,	46
421	Shallow, gravity-driven flow in a poro-elastic layer. 2015 , 778, 335-360	11
420	Fluid-Driven Deformation of a Soft Granular Material. 2015 , 5,	23
419	Energetics and forces in living cells. 2015 , 68, 27-32	29
418	Classification of blood cells and tumor cells using label-free ultrasound and photoacoustics. 2015 , 87, 741-9	23
417	Regional variations in growth plate chondrocyte deformation as predicted by three-dimensional multi-scale simulations. 2015 , 10, e0124862	12
416	Cell volume control in three dimensions: Water movement without solute movement. 2015 , 145, 373-80	38
415	Feeling force: physical and physiological principles enabling sensory mechanotransduction. 2015 , 31, 347-71	95
414	Hydraulic fracture during epithelial stretching. <i>Nature Materials</i> , 2015 , 14, 343-51	27 87
413	Cell mechanics: Hydraulic cracking. <i>Nature Materials</i> , 2015 , 14, 268-9	27 5
412	Measuring the elasticity of plant cells with atomic force microscopy. 2015 , 125, 237-54	21

411	Atomic force microscopy-based force measurements on animal cells and tissues. 2015 , 125, 211-35	44
410	The viscoelastic properties of chromatin and the nucleoplasm revealed by scale-dependent protein mobility. 2015 , 27, 064115	21
409	Physical principles of membrane remodelling during cell mechanoadaptation. 2015 , 6, 7292	66
408	Microscale consolidation analysis of relaxation behavior of single living chondrocytes subjected to varying strain-rates. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015 , 49, 343-54	4.1 11
407	Asymmetric transcript discovery by RNA-seq in <i>C. elegans</i> blastomeres identifies neg-1, a gene important for anterior morphogenesis. 2015 , 11, e1005117	14
406	Stiffening and unfolding of early deposited-fibronectin increase proangiogenic factor secretion by breast cancer-associated stromal cells. 2015 , 54, 63-71	56
405	Worms under Pressure: Bulk Mechanical Properties of <i>C. elegans</i> Are Independent of the Cuticle. 2015 , 108, 1887-98	28
404	Myosin II Activity Softens Cells in Suspension. 2015 , 108, 1856-69	68
403	Magnetogenetic control of protein gradients inside living cells with high spatial and temporal resolution. 2015 , 15, 3487-94	51
402	Life at the mesoscale: the self-organised cytoplasm and nucleoplasm. 2015 , 8, 4	11
401	Simultaneous optical and mechanical probes to investigate complex cellular responses to physical cues. 2015 ,	
400	Mechanical properties of normal versus cancerous breast cells. 2015 , 14, 1335-47	12
399	Investigating cell mechanics with atomic force microscopy. 2015 , 12, 20140970	220
398	Micropatterned Azopolymer Surfaces Modulate Cell Mechanics and Cytoskeleton Structure. 2015 , 7, 21503-10	22
397	Noncontact three-dimensional mapping of intracellular hydromechanical properties by Brillouin microscopy. 2015 , 12, 1132-4	223
396	Effects of temperature and cellular interactions on the mechanics and morphology of human cancer cells investigated by atomic force microscopy. 2015 , 58, 889-901	17
395	Kymographic Imaging of the Elastic Modulus of Epithelial Cells during the Onset of Migration. 2015 , 109, 2051-7	5
394	Mechanobiology - chemical origin of membrane mechanical resistance and force-dependent signaling. 2015 , 29, 87-93	12

393	Effect of membrane stiffness and cytoskeletal element density on mechanical stimuli within cells: an analysis of the consequences of ageing in cells. 2015 , 18, 468-76	26
392	On a poroviscoelastic model for cell crawling. 2015 , 70, 133-71	8
391	Intracellular dynamics measurements with full field optical coherence tomography suggest hindering effect of actomyosin contractility on organelle transport. 2016 , 7, 4501-4513	16
390	Cavitation of tumoral basement membrane as onset of cancer invasion and metastasis: physics of oncogenic homeorhesis via nonlinear mechano-metabolomics. 2016 , 2, 015001	
389	The dynamic mechanical properties of cellularised aggregates. 2016 , 42, 113-120	28
388	Investigation of Cell-Substrate Adhesion Properties of Living Chondrocyte by Measuring Adhesive Shear Force and Detachment Using AFM and Inverse FEA. 2016 , 6, 38059	18
387	Biomechanics of subcellular structures by non-invasive Brillouin microscopy. 2016 , 6, 37217	81
386	Actin kinetics shapes cortical network structure and mechanics. <i>Science Advances</i> , 2016 , 2, e1501337	14.3 91
385	. 2016 ,	
384	Batchelor Prize Lecture Fluid dynamics at the scale of the cell. 2016 , 807, 1-39	17
383	Poroelasticity of cell nuclei revealed through atomic force microscopy characterization. 2016 , 109, 213701	11
382	Measuring the vibration of cells subjected to ultrasound using a MEMS-based force sensor array. 2016 ,	0
381	Viscoelastic Properties Measurement of Human Lymphocytes by Atomic Force Microscopy Based on Magnetic Beads Cell Isolation. 2016 , 15, 398-411	22
380	Comparison between direct and reverse electroporation of cells in situ: a simulation study. 2016 , 4, e12673	4
379	Role of intracellular poroelasticity on freezing-induced deformation of cells in engineered tissues. 2016 , 13,	
378	A Chemomechanical Model for Nuclear Morphology and Stresses during Cell Transendothelial Migration. 2016 , 111, 1541-1552	82
377	Coordination of signaling and tissue mechanics during morphogenesis of murine intestinal villi: a role for mitotic cell rounding. 2016 , 8, 918-28	22
376	Prediction of traction forces of motile cells. 2016 , 6, 20160042	13

375	High-sensitivity microelectromechanical systems-based tri-axis force sensor for monitoring cellular traction force. 2016 , 11, 563-567		4
374	Crowder-Induced Rigidity in a Multidomain Protein: Insights from Solvation. 2016 , 120, 12501-12510		11
373	Effects of methotrexate on the viscoelastic properties of single cells probed by atomic force microscopy. 2016 , 42, 551-569		20
372	Large Deformations of a Soft Porous Material. 2016 , 5,		76
371	Porosity Governs Normal Stresses in Polymer Gels. 2016 , 117, 217802		45
370	Mapping intracellular mechanics on micropatterned substrates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E7159-E7168	11.5	37
369	Assessment of the Nucleus-to-Cytoplasmic Ratio in MCF-7 Cells Using Ultra-high Frequency Ultrasound and Photoacoustics. 2016 , 37, 1		13
368	Measuring Cell Viscoelastic Properties Using a Microfluidic Extensional Flow Device. 2016 , 111, 2039-2050		45
367	Contrasting relationship between macro- and microviscosity of the gelatin- and starch-based suspensions and gels. 2016 , 73, 3421-3435		8
366	Micromechanical Analysis of the Hyaluronan-Rich Matrix Surrounding the Oocyte Reveals a Uniquely Soft and Elastic Composition. 2016 , 110, 2779-2789		20
365	Effect of neighboring cells on cell stiffness measured by optical tweezers indentation. 2016 , 21, 57004		7
364	Investigation of the Effects of Extracellular Osmotic Pressure on Morphology and Mechanical Properties of Individual Chondrocyte. 2016 , 74, 229-40		13
363	Local viscoelasticity of living cells measured by rotational magnetic spectroscopy. 2016 , 7, 10134		76
362	Anomalous, non-Gaussian tracer diffusion in crowded two-dimensional environments. 2016 , 18, 013027		96
361	Oscillations and uniaxial mechanochemical waves in a model of an active poroelastic medium: Application to deformation patterns in protoplasmic droplets of <i>Physarum polycephalum</i> . 2016 , 318-319, 58-69		17
360	Fast Stiffness Mapping of Cells Using High-Bandwidth Atomic Force Microscopy. 2016 , 10, 257-64		16
359	Micro- and nano-mechanics of osteoarthritic cartilage: The effects of tonicity and disease severity. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 59, 561-571	4.1	8
358	Non-Brownian diffusion in lipid membranes: Experiments and simulations. 2016 , 1858, 2451-2467		167

357	Intracellular Pressure Dynamics in Blebbing Cells. 2016 , 110, 1168-79		39
356	Cell elasticity with altered cytoskeletal architectures across multiple cell types. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 61, 197-207	4-1	72
355	Interfacial tension and a three-phase generalized self-consistent theory of non-dilute soft composite solids. 2016 , 12, 2744-50		14
354	A question of time: tissue adaptation to mechanical forces. 2016 , 38, 68-73		42
353	Osteoarthritis year in review 2015: mechanics. 2016 , 24, 27-35		76
352	The Dynamics of Microtubule/Motor-Protein Assemblies in Biology and Physics. 2016 , 48, 487-506		53
351	Approaches to myosin modelling in a two-phase flow model for cell motility. 2016 , 318-319, 34-49		1
350	Micromechanical model of biphasic biomaterials with internal adhesion: Application to nanocellulose hydrogel composites. 2016 , 29, 149-160		25
349	Measurement of cortical elasticity in <i>Drosophila melanogaster</i> embryos using ferrofluids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 1051-1056	11.5	58
348	Applications of Micro/Nano Automation Technology in Detecting Cancer Cells for Personalized Medicine. 2017 , 16, 217-229		18
347	Noncontact Viscoelastic Measurement of Polymer Thin Films in a Liquid Medium Using Long-Needle Atomic Force Microscopy. 2017 , 33, 1385-1390		6
346	Cell mechanics: a dialogue. 2017 , 80, 036601		24
345	Mechanical Characterization of Microengineered Epithelial Cysts by Using Atomic Force Microscopy. 2017 , 112, 398-409		9
344	Effective equations governing an active poroelastic medium. 2017 , 473, 20160755		18
343	Are cancer cells really softer than normal cells?. 2017 , 109, 167-189		133
342	Control of Liposomal Penetration into Three-Dimensional Multicellular Tumor Spheroids by Modulating Liposomal Membrane Rigidity. 2017 , 14, 2158-2165		29
341	Measuring nanoscale viscoelastic parameters of cells directly from AFM force-displacement curves. 2017 , 7, 1541		108
340	Atomic Force Microscopy in Characterizing Cell Mechanics for Biomedical Applications: A Review. 2017 , 16, 523-540		52

339	Quantifying forces in cell biology. 2017 , 19, 742-751		255
338	From active stresses and forces to self-propulsion of droplets. 2017 , 821, 595-623		8
337	References. 141-170		
336	Energy transfer and motion synchronization between mechanical oscillators through microhydrodynamic coupling. 2017 , 29, 032005		
335	Characterization of viscoelastic properties of normal and cancerous human breast cells using a confining microchannel. 2017 , 21, 1		13
334	Dissection of mechanical force in living cells by super-resolved traction force microscopy. 2017 , 12, 783-796		38
333	Rapid dynamics of cell-shape recovery in response to local deformations. 2017 , 13, 567-577		3
332	Nanoscale imaging and force probing of biomolecular systems using atomic force microscopy: from single molecules to living cells. <i>Nanoscale</i> , 2017 , 9, 17643-17666	7.7	25
331	Cell volume change through water efflux impacts cell stiffness and stem cell fate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E8618-E8627	11.5	215
330	A combined experimental and theoretical approach towards mechanophenotyping of biological cells using a constricted microchannel. 2017 , 17, 3704-3716		26
329	Size- and speed-dependent mechanical behavior in living mammalian cytoplasm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 9529-9534	11.5	47
328	Imperfect crowding adaptation of mammalian cells towards osmotic stress and its modulation by osmolytes. 2017 , 13, 2218-2221		19
327	Development of a Poroelastic Model of Spinal Cord Cavities. 2017 , 275-283		
326	Cell Volume Regulation in the Proximal Tubule of Rat Kidney : Proximal Tubule Cell Volume Regulation. 2017 , 79, 2512-2533		4
325	AFM-Nanomechanical Test: An Interdisciplinary Tool That Links the Understanding of Cartilage and Meniscus Biomechanics, Osteoarthritis Degeneration, and Tissue Engineering. 2017 , 3, 2033-2049		26
324	High frequency ultrasound imaging and simulations of sea urchin oocytes. 2017 , 142, 268		2
323	Multiscale dynamics of the biophysical and biochemical microenvironment: Comment on "Cellular mechanosensing of the biophysical microenvironment: A review of mathematical models of biophysical regulation of cell responses" by Bo Cheng et al. 2017 , 22-23, 127-129		2
322	Time-resolved nanomechanics of a single cell under the depolymerization of the cytoskeleton. <i>Nanoscale</i> , 2017 , 9, 12051-12059	7.7	24

321	Abstracts from the British Medical Ultrasound Society 48th Annual Scientific Meeting, 7 th December 2016, York Racecourse, UK. 2017 , 25, NP1-NP46	78
320	Microinjection for the ex Vivo Modification of Cells with Artificial Organelles. 2017 , 11, 7758-7769	12
319	Egg activation-triggered shape change in the Dictyota dichotoma (Phaeophyceae) zygote is actin-myosin and secretion dependent. 2017 , 120, 529-538	2
318	Organ size control via hydraulically gated oscillations. 2017 , 144, 4422-4427	32
317	Going with the Flow: Water Flux and Cell Shape during Cytokinesis. 2017 , 113, 2487-2495	10
316	Investigation of Nanoscale Poroelasticity of Eukaryotic Cells Using Atomic Force Microscopy. 2017 ,	2
315	Noncontact Viscoelastic Imaging of Living Cells Using a Long-Needle Atomic Force Microscope with Dual-Frequency Modulation. 2017 , 8,	13
314	Microfluidic guillotine for single-cell wound repair studies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 7283-7288	11.5 20
313	. 2017 ,	
312	A combined experimental atomic force microscopy-based nanoindentation and computational modeling approach to unravel the key contributors to the time-dependent mechanical behavior of single cells. 2017 , 16, 297-311	9
311	Deformation and relaxation of an incompressible viscoelastic body with surface viscoelasticity. 2017 , 98, 309-329	17
310	A novel approach for extracting viscoelastic parameters of living cells through combination of inverse finite element simulation and Atomic Force Microscopy. 2017 , 20, 373-384	1
309	Center or periphery? Modeling the effects of focal adhesion placement during cell spreading. 2017 , 12, e0171430	6
308	Characterization of Cytoskeletal Pore Size Using Quantum Dots. 2018 , 17, 398-401	
307	Cellular dynamics of bovine aortic smooth muscle cells measured using MEMS force sensors. 2018 , 51, 145401	6
306	Maximal Fluctuations of Confined Actomyosin Gels: Dynamics of the Cell Nucleus. 2018 , 120, 098001	8
305	Tracking fast cellular membrane dynamics with sub-nm accuracy in the normal direction. <i>Nanoscale</i> , 2018 , 10, 5133-5139	7.7 10
304	Computation of forces from deformed visco-elastic biological tissues. 2018 , 34, 044001	1

303	Controlling Cellular Volume via Mechanical and Physical Properties of Substrate. 2018 , 114, 675-687		34
302	Investigation of fullerenol-induced changes in poroelasticity of human hepatocellular carcinoma by AFM-based creep tests. 2018 , 17, 665-674		8
301	Collective cell migration without proliferation: density determines cell velocity and wave velocity. 2018 , 5, 172421		54
300	A linear shear model of cell viability loss during hepatocyte transplantation. 2018 , 13, 17-00421-17-00421		1
299	Microfluidic generation of transient cell volume exchange for convectively driven intracellular delivery of large macromolecules. 2018 , 21, 703-712		27
298	Mechanical and migratory properties of normal, scar, and Dupuytren's fibroblasts. 2018 , 31, e2719		10
297	Rheology of Membrane-Attached Minimal Actin Cortices. 2018 , 122, 4537-4545		12
296	Nanoscale characterization of dynamic cellular viscoelasticity by atomic force microscopy with varying measurement parameters. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018 , 82, 193-201	4.1	16
295	Measurement of the mechanical properties of single <i>Synechocystis</i> sp. strain PCC6803 cells in different osmotic concentrations using a robot-integrated microfluidic chip. 2018 , 18, 1241-1249		15
294	Mixed finite element formulation for dynamics of porous media. 2018 , 115, 141-171		12
293	In Vitro Modeling of Mechanics in Cancer Metastasis. 2018 , 4, 294-301		45
292	Atomic force microscopy studies on cellular elastic and viscoelastic properties. 2018 , 61, 57-67		16
291	Intracellular Fluid Mechanics: Coupling Cytoplasmic Flow with Active Cytoskeletal Gel. 2018 , 50, 347-370		45
290	Cellular volume regulation and substrate stiffness modulate the detachment dynamics of adherent cells. 2018 , 112, 594-618		13
289	The future of traction force microscopy. 2018 , 5, 1-5		28
288	Computational modeling of single-cell mechanics and cytoskeletal mechanobiology. 2018 , 10, e1407		25
287	Atomic force microscopy study revealed velocity-dependence and nonlinearity of nanoscale poroelasticity of eukaryotic cells. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018 , 78, 65-73	4.1	20
286	Determination of the viscoelastic properties of a single cell cultured on a rigid support by force microscopy. <i>Nanoscale</i> , 2018 , 10, 19799-19809	7.7	28

285	Nonlinear Cellular Mechanical Behavior Adaptation to Substrate Mechanics Identified by Atomic Force Microscope. 2018 , 19,	15
284	Biomechanics in Oncology. 2018 ,	3
283	The Swings of Science. 2018 ,	0
282	Cytoskeletal Contribution to Cell Stiffness Due to Osmotic Swelling; Extending the Donnan Equilibrium. 2018 , 81, 83-96	7
281	Noninvasive Imaging: Brillouin Confocal Microscopy. 2018 , 1092, 351-364	5
280	Self-propulsion of droplets driven by an active permeating gel. 2018 , 41, 118	
279	Engineered Models of Metastasis with Application to Study Cancer Biomechanics. 2018 , 1092, 189-207	3
278	Living Matter: Mesoscopic Active Materials. 2018 , 30, e1707028	28
277	Co-Entangled Actin-Microtubule Composites Exhibit Tunable Stiffness and Power-Law Stress Relaxation. 2018 , 115, 1055-1067	27
276	Strain energy storage and dissipation rate in active cell mechanics. 2018 , 97, 052410	2
275	A continuous energy-based immersed boundary method for elastic shells. 2018 , 371, 333-362	4
274	Mechanotransduction by the Actin Cytoskeleton: Converting Mechanical Stimuli into Biochemical Signals. 2018 , 47, 617-631	62
273	Non-specific interactions govern cytosolic diffusion of nanosized objects in mammalian cells. <i>Nature Materials</i> , 2018 , 17, 740-746	27 71
272	Thermoelectromagnetics. 2018 , 333-349	
271	Thermohydromechanics. 2018 , 237-248	
270	Electrokinetics. 2018 , 249-273	
269	Spontaneous buckling of contractile poroelastic actomyosin sheets. 2018 , 9, 2461	31
268	Multiphysics in Porous Materials. 2018 ,	7

267	Differential Activity-Driven Instabilities in Biphasic Active Matter. 2018 , 120, 248003		7
266	A comparison of methods to assess cell mechanical properties. 2018 , 15, 491-498		265
265	Determination of the Elastic Moduli of a Single Cell Cultured on a Rigid Support by Force Microscopy. 2018 , 114, 2923-2932		51
264	Eukaryotic Cell Dynamics from Crawlers to Swimmers. 2019 , 9, e1376		6
263	Simulation of induced acoustic emission in fractured porous media. 2019 , 210, 113-131		8
262	Enriched mixed finite element models for dynamic analysis of continuous and fractured porous media. 2019 , 343, 74-99		18
261	Poroelasticity of Living Tissues. 2019 , 238-245		10
260	Fast, quantitative and high resolution mapping of viscoelastic properties with bimodal AFM. <i>Nanoscale</i> , 2019 , 11, 15289-15297	7-7	39
259	Investigation of the effect of substrate morphology on MDCK cell mechanical behavior using atomic force microscopy. 2019 , 115, 063701		6
258	Viscoelasticity in natural tissues and engineered scaffolds for tissue reconstruction. 2019 , 97, 74-92		45
257	Dynamics of a Particle Moving in One Dimensional Lorentz Lattice Gas. 2019 , 176, 1161-1171		0
256	3D Microenvironment Stiffness Regulates Tumor Spheroid Growth and Mechanics via p21 and ROCK. 2019 , 3, e1900128		38
255	Subsurface Imaging of Cell Organelles by Force Microscopy. 2019 , 13, 9629-9637		27
254	Numerical manifold method for dynamic consolidation of saturated porous media with three-field formulation. 2019 , 120, 768-802		15
253	Hydrodynamic interactions of filaments polymerizing against obstacles. 2019 , 76, 586-599		1
252	Stochastic modeling reveals how motor protein and filament properties affect intermediate filament transport. 2019 , 464, 132-148		6
251	Use of microaspiration to study the mechanical properties of polymer gel microparticles. 2019 , 15, 7286-7294		3
250	High stretchability, strength, and toughness of living cells enabled by hyperelastic vimentin intermediate filaments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 17175-17180	11.5	64

249	nanite: using machine learning to assess the quality of atomic force microscopy-enabled nano-indentation data. 2019 , 20, 465		8
248	Brillouin microscopy: an emerging tool for mechanobiology. 2019 , 16, 969-977		99
247	Elastodiagnosis of diseases: A review. 2019 , 27, 102-123		13
246	Effects of in vivo conditions on amyloid aggregation. 2019 , 48, 3946-3996		86
245	Mechanical Characterization of 3D Ovarian Cancer Nodules Using Brillouin Confocal Microscopy. 2019 , 12, 215-226		11
244	Stress relaxation in epithelial monolayers is controlled by the actomyosin cortex. 2019 , 15, 839-847		58
243	Nonlinear contact mechanics for the indentation of hyperelastic cylindrical bodies. 2019 , 1, 1		4
242	The biological frontier of pattern formation. 2019 , 347, 337-341		
241	Biological Systems: Nonlinear Dynamics Approach. 2019 ,		1
240	Onset of Mechanochemical Pattern Formation in Poroviscoelastic Models of Active Cytoplasm. 2019 , 87-106		
239	From mechanical resilience to active material properties in biopolymer networks. 2019 , 1, 249-263		50
238	Mapping the creep compliance of living cells with scanning ion conductance microscopy reveals a subcellular correlation between stiffness and fluidity. <i>Nanoscale</i> , 2019 , 11, 6982-6989	7.7	13
237	Role of mechanical flow for actin network organization. 2019 , 90, 217-224		4
236	EMSCs Build an All-in-One Niche via Cell-Cell Lipid Raft Assembly for Promoted Neuronal but Suppressed Astroglial Differentiation of Neural Stem Cells. 2019 , 31, e1806861		22
235	Increased stiffness and flow resistance of the inner wall of Schlemm's canal in glaucomatous human eyes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 ,	11.5	39
234	Cellular Volume and Matrix Stiffness Direct Stem Cell Behavior in a 3D Microniche. 2019 , 11, 1754-1759		40
233	Distinct relaxation timescales of neurites revealed by rate-dependent indentation, relaxation and micro-rheology tests. 2019 , 15, 166-174		7
232	Dynamics of Flexible Fibers in Viscous Flows and Fluids. 2019 , 51, 539-572		64

231	Atomic force microscopy-based mechanobiology. 2019 , 1, 41-57	274
230	Modeling of Soft Sample Deformation in Atomic Force Microscope Imaging: Live Mammalian Cell Example. 2019 , 2, 1800036	
229	Dissecting cellular mechanics: Implications for aging, cancer, and immunity. 2019 , 93, 16-25	11
228	Finite element modeling of living cells for AFM indentation-based biomechanical characterization. 2019 , 116, 108-115	20
227	Advances in atomic force microscopy for single-cell analysis. 2019 , 12, 703-718	37
226	Material approaches to active tissue mechanics. 2019 , 4, 23-44	66
225	Atomic Force Microscopy in Probing Tumor Physics for Nanomedicine. 2019 , 18, 83-113	10
224	Bibliography. 2019 , 497-718	1
223	The breakdown of Darcy's law in a soft porous material. 2020 , 16, 939-944	10
222	Adaptive Discontinuous Galerkin Modeling of Intrinsic Attenuation Anisotropy for Fluid-Saturated Porous Media. 2020 , 58, 3113-3122	5
221	Measuring viscoelasticity of soft biological samples using atomic force microscopy. 2020 , 16, 64-81	73
220	Poroelasticity of (bio)polymer networks during compression: theory and experiment. 2020 , 16, 1298-1305	12
219	Do Cell Membranes Flow Like Honey or Jiggle Like Jello?. 2020 , 42, e1900142	18
218	A new framework for characterization of poroelastic materials using indentation. 2020 , 102, 138-148	18
217	Nuclear plasticity increases susceptibility to damage during confined migration. 2020 , 16, e1008300	7
216	Physicochemical Characterization of Liposomes That Mimic the Lipid Composition of Exosomes for Effective Intracellular Trafficking. 2020 , 36, 12735-12744	12
215	Spatial mapping of the collagen distribution in human and mouse tissues by force volume atomic force microscopy. 2020 , 10, 15664	4
214	Nanomechanical mapping of soft materials with the atomic force microscope: methods, theory and applications. 2020 ,	121

213	Confined diffusion in a random Lorentz gas environment. 2020 , 102, 012137	4
212	Prestress and Area Compressibility of Actin Cortices Determine the Viscoelastic Response of Living Cells. 2020 , 125, 068101	13
211	Hallmarks of Life in Single Cell Contact Mechanics: Outstanding Challenges and Perspectives. 2020 , 6,	2
210	Nanoscale Viscosity of Cytoplasm Is Conserved in Human Cell Lines. 2020 , 11, 6914-6920	8
209	Dynamics of a Particle Moving in a Two Dimensional Lorentz Lattice Gas. 2020 , 181, 1986-1995	0
208	Effects of energy metabolism on the mechanical properties of breast cancer cells. 2020 , 3, 590	4
207	Cell biophysical stimuli in lobopodium formation: a computer based approach. 2021 , 24, 496-505	2
206	Time dependent stress relaxation and recovery in mechanically strained 3D microtissues. 2020 , 4, 036107	3
205	Poroelasticity of highly confined hydrogel films measured with a surface forces apparatus. 2020 , 16, 8096-8100	4
204	Effects of extracellular matrix viscoelasticity on cellular behaviour. 2020 , 584, 535-546	362
203	The Mechanics of Mitotic Cell Rounding. <i>Frontiers in Cell and Developmental Biology</i> , 2020 , 8, 687	5.7 26
202	A mathematical finance approach to the stochastic and intermittent viscosity fluctuations in living cells. 2020 , 16, 5959-5969	
201	Volcano-Shaped Scanning Probe Microscopy Probe for Combined Force-Electrogram Recordings from Excitable Cells. 2020 , 20, 4520-4529	4
200	Microstreaming inside Model Cells Induced by Ultrasound and Microbubbles. 2020 , 36, 6388-6398	4
199	Poroelastic properties of hydrogel microparticles. 2020 , 16, 5314-5324	8
198	A unified rheological model for cells and cellularised materials. 2020 , 7, 190920	21
197	Optimizing Quantum Dot Probe Size for Single-Receptor Imaging. 2020 , 14, 8343-8358	7
196	Monitoring contractility in cardiac tissue with cellular resolution using biointegrated microlasers. 2020 , 14, 452-458	38

195	Double power-law viscoelastic relaxation of living cells encodes motility trends. 2020 , 10, 4749		12
194	Characterizing poroelasticity of biological tissues by spherical indentation: an improved theory for large relaxation. 2020 , 138, 103920-103920		7
193	Simulation of fracture propagation induced acoustic emission in porous media. 2020 , 229, 106950		7
192	Application of poroelastic layers in a semi-submersible platform: Devising an efficient heave motion response reduction method. 2020 , 201, 107148		2
191	Correlative fluorescence and atomic force microscopy to advance the bio-physical characterisation of co-culture of living cells. 2020 , 529, 392-397		2
190	High resolution mass spectrometry for single cell analysis. 2020 , 450, 116302		4
189	Interaction of Sp1 and APP promoter elucidates a mechanism for Pb caused neurodegeneration. 2020 , 681, 108265		2
188	Effect of F-actin and Microtubules on Cellular Mechanical Behavior Studied Using Atomic Force Microscope and an Image Recognition-Based Cytoskeleton Quantification Approach. 2020 , 21,		9
187	High shear stress amplitude in combination with prolonged stimulus duration determine induction of osteoclast formation by hematopoietic progenitor cells. 2020 , 34, 3755-3772		7
186	On the mechanical response of the actomyosin cortex during cell indentations. 2020 , 19, 2061-2079		1
185	Stability analysis for a new model of multi-species convection-diffusion-reaction in poroelastic tissue. <i>Applied Mathematical Modelling</i> , 2020 , 84, 425-446	4-5	6
184	Development of 3D manipulation of viscoelastic biological cells by AFM based on contact models and oscillatory drag. 2020 , 1-13		2
183	A comparison of microfluidic methods for high-throughput cell deformability measurements. 2020 , 17, 587-593		56
182	Complex modulus and compliance for airway smooth muscle cells. 2020 , 101, 032410		1
181	Nanorheology of living cells measured by AFM-based force-distance curves. <i>Nanoscale</i> , 2020 , 12, 9133-9143		32
180	A moving finite element framework for fast infiltration in nonlinear poroelastic media. 2021 , 25, 793-804		1
179	Mechanics of active gel spheres under bulk contraction. <i>International Journal of Mechanical Sciences</i> , 2021 , 193, 106147	5-5	3
178	In Pursuit of Designing Multicellular Engineered Living Systems: A Fluid Mechanical Perspective. 2021 , 53, 411-437		3

177	Modeling the mechanobioelectricity of cell clusters. 2021 , 20, 535-554		1
176	How does oxygen diffuse from capillaries to tissue mitochondria? Barriers and pathways. 2021 , 599, 1769-17824		
175	Atomic force microscopy for revealing micro/nanoscale mechanics in tumor metastasis: from single cells to microenvironmental cues. 2021 , 42, 323-339		12
174	The viscoelasticity of adherent cells follows a single power-law with distinct local variations within a single cell and across cell lines. <i>Nanoscale</i> , 2021 , 13, 16339-16348	7.7	2
173	Intracellular softening and fluidification reveals a mechanical switch of cytoskeletal material contributions during division.		3
172	Trajectories in nanotechnology: embracing complexity, seeking analogies. 2021 , 11, 334-340		1
171	The Synthesis and Design of Nanoparticles for Measuring Traction Forces in Living Cells. 2021 , 759-772		
170	Quantitative coupling of cell volume and membrane tension during osmotic shocks.		0
169	Characterizing in situ poroelastic properties of cytoplasm by the translation of a rigid spherical inclusion. 2021 , 37, 194-200		1
168	Spheroid mechanics and implications for cell invasion. 2021 , 6,		0
167	Principles and Applications of Single Particle Tracking in Cell Research. <i>Small</i> , 2021 , 17, e2005133	11	2
166	Poromechanical controls on spontaneous imbibition in earth materials. 2021 , 11, 3328		3
165	A poroelastic master curve for time-dependent and multiscale mechanics of hydrogels. 2021 , 36, 2582-2590		3
164	Influence of external forces on actin-dependent T cell protrusions during immune synapse formation. 2021 , 113, 250-263		2
163	A mathematical model for bleb regulation in zebrafish primordial germ cells. 2021 , 38, 218-254		1
162	A method for measuring fluid pressure and solid deformation profiles in uniaxial porous media flows. 2021 , 92, 025101		
161	Viscoelastic properties of white and gray matter-derived microglia differentiate upon treatment with lipopolysaccharide but not upon treatment with myelin. 2021 , 18, 83		3
160	De novo identification of universal cell mechanics regulators.		1

159	Application of the thermoporoelasticity model in numerical modelling of underground coal gasification influence on the surrounding medium. 2021 ,		2
158	Quantitative Methodologies to Dissect Immune Cell Mechanobiology. 2021 , 10,		1
157	Efficient Single-Cell Mechanical Measurement by Integrating a Cell Arraying Microfluidic Device With Magnetic Tweezer. 2021 , 6, 2978-2984		5
156	A novel assessment of microstructural and mechanical behaviour of bilayer silica-reinforced nanocomposite hydrogels as a candidate for artificial cartilage. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021 , 116, 104333	4.1	4
155	Calculation of the force field required for nucleus deformation during cell migration through constrictions. 2021 , 17, e1008592		1
154	Rheology of rounded mammalian cells over continuous high-frequencies. 2021 , 12, 2922		4
153	Cell nucleus as a microrheological probe to study the rheology of the cytoskeleton. 2021 , 120, 1542-1564		1
152	AFM Force Relaxation Curve Reveals That the Decrease of Membrane Tension Is the Essential Reason for the Softening of Cancer Cells. <i>Frontiers in Cell and Developmental Biology</i> , 2021 , 9, 663021	5.7	3
151	Modeling mechanochemical pattern formation in elastic sheets of biological matter. 2021 , 44, 82		0
150	The Cell as Matter: Connecting Molecular Biology to Cellular Functions.. 2021 , 4, 1863-1891		7
149	Human mammary epithelial cells in a mature, stratified epithelial layer flatten and stiffen compared to single and confluent cells. 2021 , 1865, 129891		0
148	Chemo-mechanical model of a cell as a stochastic active gel. 2021 , 151, 104381		3
147	Articular and Artificial Cartilage, Characteristics, Properties and Testing Approaches-A Review. 2021 , 13,		3
146	Theragnostic nanomotors: Successes and upcoming challenges. 2021 , 13, e1736		0
145	AFM-based indentation method for measuring the relaxation property of living cells. 2021 , 122, 110444		1
144	A mechano-osmotic feedback couples cell volume to the rate of cell deformation.		0
143	Theory of fluid saturated porous media with surface effects. 2021 , 151, 104392		2
142	Dynamical transitions of the actomyosin cortex can trigger single cell morphogenesis.		

141	Edible Bird's Nest, an Asian Health Food Supplement, Possesses Moisturizing Effect by Regulating Expression of Filaggrin in Skin Keratinocyte. 2021 , 12, 685982	3
140	Intermediate Filaments from Tissue Integrity to Single Molecule Mechanics. 2021 , 10,	5
139	Feeling the force: Multiscale force sensing and transduction at the cell-cell interface. 2021 ,	2
138	Fluid flow in the sarcomere. 2021 , 706, 108923	2
137	Skin under Strain: From Epithelial Model Tissues to Adult Epithelia. 2021 , 10,	1
136	Double poroelasticity derived from the microstructure. 2021 , 232, 3801	0
135	Viscoelastic Properties in Cancer: From Cells to Spheroids. 2021 , 10,	6
134	Measurements of Cellular Forces and their Importance in the Lung-From the Sub- to the Multicellular Scale. 2021 , 11,	1
133	Extracellular vesicles as delivery systems at nano-/micro-scale. 2021 , 179, 113910	9
132	Viscoelasticity and Noise Properties Reveal the Formation of Biomemory in Cells.	
131	Direct comparison of angiogenesis in natural and synthetic biomaterials reveals that matrix porosity regulates endothelial cell invasion speed and sprout diameter. 2021 , 135, 260-273	5
130	Acidic pH-induced changes in lipid nanoparticle membrane packing. 2021 , 1863, 183627	2
129	Biomechanical Aspects of in Vitro Fertilization. 2022 , 1-16	
128	Viscoelasticity and Noise Properties Reveal the Formation of Biomemory in Cells. 2021 , 125, 10883-10892	1
127	Modeling cell membrane electrodeformation by alternating electric fields. 2021 , 104, 034413	1
126	Analysis of a 2-field finite element solver for poroelasticity on quadrilateral meshes. 2021 , 393, 113539	1
125	Resistor-capacitor modeling of the cell membrane: A multiphysics analysis. 2021 , 129, 011101	6
124	Finite Volume Method. 2018 , 385-395	1

123	Enriched mixed numerical manifold formulation with continuous nodal gradients for dynamics of fractured poroelasticity. <i>Applied Mathematical Modelling</i> , 2020 , 86, 225-258	4.5	21
122	Advances in Micropipette Aspiration: Applications in Cell Biomechanics, Models, and Extended Studies. 2019 , 116, 587-594		46
121	Tracking intracellular forces and mechanical property changes in mouse one-cell embryo development. <i>Nature Materials</i> , 2020 , 19, 1114-1123	27	7
120	Effective mixing due to oscillatory laminar flow in tubular networks of plasmodial slime moulds. 2020 , 22, 053007		2
119	Getting around the cell: physical transport in the intracellular world. 2020 , 17, 061003		15
118	Nuclear Plasticity Increases Susceptibility to Damage During Confined Migration.		1
117	Physical properties of the cytoplasm modulate the rates of microtubule polymerization and depolymerization.		5
116	Collective cell migration without proliferation: density determines cell velocity and wave velocity.		2
115	Stress relaxation in epithelial monolayers is controlled by actomyosin.		4
114	A unified rheological model for cells and cellularised materials.		6
113	3D microenvironment stiffness regulates tumor spheroid growth and mechanics via p21 and ROCK.		2
112	Monitoring contractility in single cardiomyocytes and whole hearts with bio-integrated microlasers.		2
111	Pre-stress of actin cortices is important for the viscoelastic response of living cells.		2
110	Colloidal hydrodynamics of biological cells: A frontier spanning two fields. 2019 , 4,		6
109	Nonlinear Elastic and Inelastic Properties of Cells. 2020 , 142,		6
108	The Interrelated Mechanics of Poroelastic Gels in Time- and Frequency-Domain Detected by Indentation. 2020 , 12, 2050103		1
107	Reversible solidification of fission yeast cytoplasm after prolonged nutrient starvation. 2019 , 132,		10
106	Evaluation of commercial virtually imaged phase array and Fabry-Pérot based Brillouin spectrometers for applications to biology. 2020 , 11, 6933-6944		3

105	Poroelastic mechanical effects of hemicelluloses on cellulosic hydrogels under compression. 2015 , 10, e0122132		38
104	Diffusion and Binding of Mismatch Repair Protein, MSH2, in Breast Cancer Cells at Different Stages of Neoplastic Transformation. 2017 , 12, e0170414		1
103	A poroelastic master curve for time-dependent and multiscale mechanics of hydrogels. 2021 , 36, 2582		1
102	Microscale Mechanics of Plug-and-Play In Vitro Cytoskeleton Networks.		1
101	Co-movement of astral microtubules, organelles and F-actin by dynein and actomyosin forces in frog egg cytoplasm. <i>ELife</i> , 2020 , 9,	8.9	9
100	Partitioning of ribonucleoprotein complexes from the cellular actin cortex.		0
99	Intracellular softening and increased viscoelastic fluidity during division.		3
98	A hierarchical cellular structural model to unravel the universal power-law rheological behavior of living cells. 2021 , 12, 6067		6
97	Contribution of cytoplasm viscoelastic properties to mitotic spindle positioning.		0
96	Rapid dynamics of cell-shape recovery in response to local deformations.		
95	Dynamic and Depth Dependent Nanomechanical Properties of Dorsal Ruffles in Live Cells and Biopolymeric Hydrogels.		
94	Hydromechanics: Poroelasticity as a Simple Case. 2018 , 219-235		
93	Partial Differential Equations. 2018 , 67-78		
92	Magnetic wire as stress controlled micro-rheometer for cytoplasm viscosity measurements. 2018 ,		
91	Reversible solidification of fission yeast cytoplasm after prolonged nutrient starvation.		
90	High stretchability, strength and toughness of living cells enabled by hyperelastic vimentin network.		
89	On Pectin Methyl-esterification: Implications for In vitro and In vivo Viscoelasticity.		1
88	Biomechanical View on the Cytoplasm (and Cytosol) of Cells. 2020 , 57-94		

87	Structural Elements of the Biomechanical System of Soft Tissue. 2020 , 12, e7895	1
86	Atomic Force Microscopy: A New Look at Microbes. 2020 , 1, 1-111	
85	Co-movement of astral microtubules, organelles and F-actin suggests aster positioning by surface forces in frog eggs.	1
84	Viscoelastic multiscaling in immersed networks. <i>Physical Review Research</i> , 2020 , 2,	3.9 1
83	Eukaryotic CRFK cells motion characterized with atomic force microscopy.	
82	Nanomechanical Insight of Pancreatic Cancer Cell Membrane during Receptor Mediated Endocytosis of Targeted Gold Nanoparticles.. 2021 , 4, 984-994	2
81	Time dependent stress relaxation and recovery in mechanically strained 3D microtissues.	
80	Mechanobiology Analysis of Manifold Live Cells in Vitro with Atomic Force Acoustic Microscopy.. 2020 , 3, 1210-1215	
79	Human Mammary Cells in a Mature, Stratified Epithelial Layer Flatten and Stiffen Compared to Confluent and Single Cells.	
78	Quantifying cell-generated forces: Poisson's ratio matters. 2021 , 4, 237	3
77	Consistent apparent Young's modulus of human embryonic stem cells and derived cell types stabilized by substrate stiffness regulation promotes lineage specificity maintenance. 2020 , 9, 15	2
76	3D Computational Modeling of Bleb Initiation Dynamics. 2021 , 9,	0
75	Viscoelastic properties of epithelial cells. 2021 ,	0
74	Poroelastic osmoregulation of living cell volume.. 2021 , 24, 103482	1
73	Concluding Remarks. 2022 , 211-217	
72	Interstitial Fluid Behavior and Diseases.. <i>Advanced Science</i> , 2022 , e2100617	13.6 2
71	Shaping the stress field in cell monolayers via intercellular water flows. 2022 , 159, 104756	0
70	Viscous shaping of the compliant cell nucleus.. 2022 , 6, 010901	3

69	Consistent apparent Young's modulus of human embryonic stem cells and derived cell types stabilized by substrate stiffness regulation promotes lineage specificity maintenance. 2020 , 9, 15		2
68	Insights into cell classification based on combination of multiple cellular mechanical phenotypes by using machine learning algorithm.. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022 , 128, 105097	4.1	0
67	An Electrochemo-Poromechanical Theory for the Mechanobioelectricity of Cell Clusters. 2022 , 171-206		
66	Rapid propagation of membrane tension at retinal bipolar neuron presynaptic terminals.. <i>Science Advances</i> , 2022 , 8, eabl4411	14.3	1
65	Active Regulation of Pressure and Volume Defines an Energetic Constraint on the Size of Cell Aggregates.. 2022 , 128, 048103		2
64	Blood clot behaves as a poro-visco-elastic material.. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022 , 128, 105101	4.1	3
63	Viscoelasticity, Like Forces, Plays a Role in Mechanotransduction.. <i>Frontiers in Cell and Developmental Biology</i> , 2022 , 10, 789841	5.7	2
62	Dynamic alteration of poroelastic attributes as determinant membrane nanorheology for endocytosis of organ specific targeted gold nanoparticles.. <i>Journal of Nanobiotechnology</i> , 2022 , 20, 74	9.4	1
61	Acquiring structural and mechanical information of a fibrous network through deep learning.. <i>Nanoscale</i> , 2022 ,	7.7	1
60	Contribution of cytoplasm viscoelastic properties to mitotic spindle positioning.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022 , 119,	11.5	1
59	Physical properties of the cytoplasm modulate the rates of microtubule polymerization and depolymerization.. <i>Developmental Cell</i> , 2022 , 57, 466-479.e6	10.2	4
58	Active muscular hydraulics.		
57	Atomic force microscopy: A nanobiotechnology for cellular research. 2022 , 9130004		0
56	Reciprocity of Cell Mechanics with Extracellular Stimuli: Emerging Opportunities for Translational Medicine.. <i>Small</i> , 2022 , e2107305	11	2
55	Impact of Vimentin on Regulation of Cell Signaling and Matrix Remodeling.. <i>Frontiers in Cell and Developmental Biology</i> , 2022 , 10, 869069	5.7	1
54	High Energy and Power Density Peptidoglycan Muscles through Super-Viscous Nanoconfined Water.. <i>Advanced Science</i> , 2022 , e2104697	13.6	1
53	Actin turnover required for adhesion-independent bleb migration.		
52	Biophysical Approaches for Applying and Measuring Biological Forces.. <i>Advanced Science</i> , 2021 , e2105254	43.6	3

51	Unified description of compressive modulus revealing multiscale mechanics of living cells. <i>Physical Review Research</i> , 2021 , 3,	3.9	2
50	A mechano-osmotic feedback couples cell volume to the rate of cell deformation.. <i>ELife</i> , 2022 , 11,	8.9	0
49	Frequency-dependent transition in power-law rheological behavior of living cells.. <i>Science Advances</i> , 2022 , 8, eabn6093	14.3	2
48	The poroviscoelastodynamic solution to Mandel's problem. <i>Journal of Sound and Vibration</i> , 2022 , 530, 116987	3.9	0
47	Role of Actin-binding Proteins in the Regulation of Cellular Mechanics. <i>European Journal of Cell Biology</i> , 2022 , 151241	6.1	0
46	Vast heterogeneity in cytoplasmic diffusion rates revealed by nanorheology and Doppelgänger simulations.		0
45	Actin Turnover Required for Adhesion-Independent Bleb Migration. <i>Fluids</i> , 2022 , 7, 173	1.6	
44	Time-dependent deformation of biological tissue under ultrasonic irradiation. <i>International Journal of Mechanical Sciences</i> , 2022 , 107432	5.5	
43	Hydro-mechanical multiscale numerical manifold model of the three-dimensional heterogeneous poro-elasticity. <i>Applied Mathematical Modelling</i> , 2022 , 110, 779-818	4.5	1
42	Mechanical Characterization and Modelling of Subcellular Components of Oocytes. <i>Micromachines</i> , 2022 , 13, 1087	3.3	0
41	Condensate functionalization with motors directs their nucleation in space and allows manipulating RNA localization.		
40	Hydrogels as functional components in artificial cell systems. <i>Nature Reviews Chemistry</i> ,	34.6	5
39	Enhanced cell viscosity as a marker of premature senescence induced by lamin A/C alterations.		
38	Finite Element Methods for Large-Strain Poroelasticity/Chemotaxis Models Simulating the Formation of Myocardial Oedema. 2022 , 92,		0
37	In Situ Characterization of the Protein Corona of Nanoparticles In Vitro and In Vivo. 2203354		1
36	General solutions of linear poro-viscoelastic materials in spherical coordinates. 2022 , 946,		
35	Partitioning of ribonucleoprotein complexes from the cellular actin cortex. 2022 , 8,		
34	Effects of solution conductivity on macropore size dynamics in electroporated lipid vesicle membranes. 2022 , 147, 108222		1

33	Viscoporoelasticity of coagulation blood clots. 2022 , 56, 101859	
32	Measurement Methods in Atomic Force Microscopy. 2020 , 1-25	0
31	Brillouin light scattering in biological systems. 2022 , 313-348	1
30	Tribological Evaluation of Silica Nanoparticle Enhanced Bilayer Hydrogels as A Candidate for Cartilage Replacement. 2022 , 14, 3593	0
29	Bridging global actin network patterns to local molecular dynamics: a combined modeling and machine learning framework.	0
28	Mechanochemical Models for Calcium Waves in Embryonic Epithelia.	0
27	Molecular determinants of intrinsic cellular stiffness in health and disease.	0
26	Size and position dependent cytoplasm viscoelasticity through hydrodynamic interactions with the cell surface.	0
25	Network Dynamics of the Nonlinear Power-law Relaxation of Cell Cortex. 2022 ,	0
24	Simultaneous assessment of radial and axial myocyte mechanics by combining atomic force microscopy and carbon fibre techniques. 2022 , 377,	2
23	Water transport regulates nucleus volume, cell density, Young's modulus, and E-cadherin expression in tumor spheroids. 2022 , 101, 151278	1
22	Nanomechanical Mapping of Hard Tissues by Atomic Force Microscopy: An Application to Cortical Bone. 2022 , 15, 7512	3
21	How dynamic prestress governs the shape of living systems, from the subcellular to tissue scale. 2022 , 12,	0
20	Coupling Chemotaxis and Growth Poromechanics for the Modelling of Feather Primordia Patterning. 2022 , 10, 4096	0
19	Dynamic Mechanical Analysis of Suspended Soft Bodies via Hydraulic Force Spectroscopy.	0
18	A high-throughput microfluidic device inspired by the Wheatstone bridge principle for characterizing the mechanical properties of single cells.	0
17	DISTINGUISHING POROELASTICITY AND VISCOELASTICITY OF BRAIN TISSUE WITH TIME SCALE. 2022 ,	0
16	F-actin architecture determines constraints on myosin thick filament motion. 2022 , 13,	1

- 15 Mechanosensing model of fibroblast cells adhered on a substrate with varying stiffness and thickness. **2022**, 105137 ○
- 14 Eukaryotic CRFK Cells Motion Characterized with Atomic Force Microscopy. **2022**, 23, 14369 ○
- 13 In Response to Precision Medicine: Current Subcellular Targeting Strategies for Cancer Therapy. 2209529 1
- 12 Atomic Force Microscopy-based assessment of biomechanical cellular properties for classification of graded bladder cancer cells and cancer early diagnosis using machine learning analysis. **2022**, ○
- 11 Two dominant timescales of cytoskeletal crosslinking in the viscoelastic response of the cytoplasm. **2022**, 4, ○
- 10 Comparison of translational and rotational modes towards passive rheology of the cytoplasm of MCF-7 cells using optical tweezers. 10, ○
- 9 Plasmonic-Magnetic Active Nanorheology for Intracellular Viscosity. ○
- 8 Cytoskeletal networks are adaptive active elastic filamentous materials that design their own shape in response to system geometry. ○
- 7 Mechanotherapy in oncology: Targeting nuclear mechanics and mechanotransduction. **2023**, 194, 114722 ○
- 6 Vast heterogeneity in cytoplasmic diffusion rates revealed by nanorheology and Doppelgänger simulations. **2023**, 122, 767-783 ○
- 5 Dynamic Deformation Measurement of an Intact Single Cell via Microfluidic Chip with Integrated Liquid Exchange. **2023**, ○
- 4 Hydrodynamic slender-body theory for local rotation at zero Reynolds number. **2023**, 8, ○
- 3 Combining atomic force microscopy with complementary techniques for multidimensional single-cell analysis. ○
- 2 Two-fluid dynamics and micron-thin boundary layers shape cytoplasmic flows in early *Drosophila* embryos. ○
- 1 Characterization of Biocompatibility of Functional Bioinks for 3D Bioprinting. **2023**, 10, 457 ○