Thomas Boudou

List of Publications by Year in descending order

50 papers	3,784 citations	159585 30 h-index	233421 45 g-index
55 all docs	55 docs citations	55 times ranked	5885 citing authors

#	Article	IF	Citations
1	Multiple Functionalities of Polyelectrolyte Multilayer Films: New Biomedical Applications. Advanced Materials, 2010, 22, 441-467.	21.0	656
2	A Hitchhiker's Guide to Mechanobiology. Developmental Cell, 2011, 21, 35-47.	7.0	417
3	A Microfabricated Platform to Measure and Manipulate the Mechanics of Engineered Cardiac Microtissues. Tissue Engineering - Part A, 2012, 18, 910-919.	3.1	355
4	Formation and optogenetic control of engineered 3D skeletal muscle bioactuators. Lab on A Chip, 2012, 12, 4976.	6.0	253
5	Polysaccharide-based polyelectrolyte multilayers. Current Opinion in Colloid and Interface Science, 2010, 15, 417-426.	7.4	164
6	Free-Standing Polyelectrolyte Membranes Made of Chitosan and Alginate. Biomacromolecules, 2013, 14, 1653-1660.	5.4	131
7	Presentation of BMPâ€2 from a Soft Biopolymeric Film Unveils its Activity on Cell Adhesion and Migration. Advanced Materials, 2011, 23, H111-8.	21.0	116
8	Surface functionalization of hyaluronic acid hydrogels by polyelectrolyte multilayer films. Biomaterials, 2011, 32, 5590-5599.	11.4	108
9	An extended relationship for the characterization of Young's modulus and Poisson's ratio of tunable polyacrylamide gels. Biorheology, 2006, 43, 721-8.	0.4	103
10	Decoupling Cell and Matrix Mechanics in Engineered Microtissues Using Magnetically Actuated Microcantilevers. Advanced Materials, 2013, 25, 1699-1705.	21.0	89
11	Internal Composition versus the Mechanical Properties of Polyelectrolyte Multilayer Films: The Influence of Chemical Cross-Linking. Langmuir, 2009, 25, 13809-13819.	3.5	80
12	Micropore-induced capillarity enhances bone distribution in vivo in biphasic calcium phosphate scaffolds. Acta Biomaterialia, 2016, 44, 144-154.	8.3	80
13	Variation of Polyelectrolyte Film Stiffness by Photo-Cross-Linking: A New Way To Control Cell Adhesion. Langmuir, 2009, 25, 3556-3563.	3.5	77
14	An extended modeling of the micropipette aspiration experiment for the characterization of the Young's modulus and Poisson's ratio of adherent thin biological samples: Numerical and experimental studies. Journal of Biomechanics, 2006, 39, 1677-1685.	2.1	73
15	Spatioâ€Temporal Control of LbL Films for Biomedical Applications: From 2D to 3D. Advanced Healthcare Materials, 2015, 4, 811-830.	7.6	69
16	In vivo measurement of human brain elasticity using a light aspiration device. Medical Image Analysis, 2009, 13, 673-678.	11.6	65
17	Polysaccharideâ€Blend Multilayers Containing Hyaluronan and Heparin as a Delivery System for rhBMPâ€2. Small, 2010, 6, 651-662.	10.0	60
18	Gradients of physical and biochemical cues on polyelectrolyte multilayer films generated via microfluidics. Lab on A Chip, 2013, 13, 1562.	6.0	58

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19	Nonlinear elastic properties of polyacrylamide gels: Implications for quantification of cellular forces. Biorheology, 2009, 46, 191-205.	0.4	54
20	Development and characterization of a 3D multicell microtissue culture model of airway smooth muscle. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2013, 304, L4-L16.	2.9	53
21	Contactâ€Killing Polyelectrolyte Microcapsules Based on Chitosan Derivatives. Advanced Functional Materials, 2010, 20, 3303-3312.	14.9	50
22	Necking and failure of constrained 3D microtissues induced by cellular tension. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20923-20928.	7.1	46
23	Confinement-Induced Transition between Wavelike Collective Cell Migration Modes. Physical Review Letters, 2019, 122, 168101.	7.8	46
24	Magneto-active substrates for local mechanical stimulation of living cells. Scientific Reports, 2018, 8, 1464.	3.3	43
25	Polyelectrolyte Multilayer Nanofilms Used as Thin Materials for Cell Mechanoâ€Sensitivity Studies. Macromolecular Bioscience, 2011, 11, 77-89.	4.1	42
26	Controlling the Structural Properties of Single Step, Dip Coated ZnO Seed Layers for Growing Perfectly Aligned Nanowire Arrays. Journal of Physical Chemistry C, 2015, 119, 21694-21703.	3.1	42
27	Polyelectrolyte multilayer nanoshells with hydrophobic nanodomains for delivery of Paclitaxel. Journal of Controlled Release, 2012, 159, 403-412.	9.9	36
28	Substrate Stiffness Combined with Hepatocyte Growth Factor Modulates Endothelial Cell Behavior. Biomacromolecules, 2016, 17, 2767-2776.	5.4	36
29	Hydrophobic Shell Loading of Biopolyelectrolyte Capsules. Advanced Materials, 2011, 23, H200-4.	21.0	35
30	Multiscale Porosity Directs Bone Regeneration in Biphasic Calcium Phosphate Scaffolds. ACS Biomaterials Science and Engineering, 2017, 3, 2768-2778.	5.2	33
31	Rigidityâ€Patterned Polyelectrolyte Films to Control Myoblast Cell Adhesion and Spatial Organization. Advanced Functional Materials, 2013, 23, 3432-3442.	14.9	29
32	Stiffness-dependent cellular internalization of matrix-bound BMP-2 and its relation to Smad and non-Smad signaling. Acta Biomaterialia, 2016, 46, 55-67.	8.3	29
33	Microfabrication of a Platform to Measure and Manipulate the Mechanics of Engineered Microtissues. Methods in Cell Biology, 2014, 121, 191-211.	1.1	28
34	Construction and myogenic differentiation of 3D myoblast tissues fabricated by fibronectin-gelatin nanofilm coating. Biochemical and Biophysical Research Communications, 2016, 474, 515-521.	2.1	27
35	Signal mingle: Micropatterns of BMP-2 and fibronectin on soft biopolymeric films regulate myoblast shape and SMAD signaling. Scientific Reports, 2017, 7, 41479.	3.3	26
36	Bio-Functionalization of Silicon Carbide Nanostructures for SiC Nanowire-Based Sensors Realization. Journal of Nanoscience and Nanotechnology, 2014, 14, 3391-3397.	0.9	25

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37	Theoretical analysis of the adaptive contractile behaviour of a single cardiomyocyte cultured on elastic substrates with varying stiffness. Journal of Theoretical Biology, 2008, 255, 92-105.	1.7	23
38	Quiescence of human muscle stem cells is favored by culture on natural biopolymeric films. Stem Cell Research and Therapy, 2017, 8, 104.	5.5	22
39	Alkylamino Hydrazide Derivatives of Hyaluronic Acid: Synthesis, Characterization in Semidilute Aqueous Solutions, and Assembly into Thin Multilayer Films. Biomacromolecules, 2009, 10, 2875-2884.	5.4	20
40	Amyloid-like aggregates formation by blood plasma fibronectin. International Journal of Biological Macromolecules, 2017, 97, 733-743.	7.5	16
41	Magnetic approaches to study collective three-dimensional cell mechanics in long-term cultures (invited). Journal of Applied Physics, 2014, 115, 172616.	2.5	14
42	Differences in Morphology and Traction Generation of Cell Lines Representing Different Stages of Osteogenesis. Journal of Biomechanical Engineering, 2015, 137, 124503.	1.3	13
43	Quick and easy microfabrication of T-shaped cantilevers to generate arrays of microtissues. Biomedical Microdevices, 2016, 18, 43.	2.8	10
44	Beyond mice: Emerging and transdisciplinary models for the study of early-onset myopathies. Seminars in Cell and Developmental Biology, 2017, 64, 171-180.	5.0	10
45	On the spatiotemporal regulation of cell tensional state. Experimental Cell Research, 2019, 378, 113-117.	2.6	9
46	Oscillations in collective cell migration. , 2021, , 157-192.		9
47	A Microfabricated Platform to Measure and Manipulate the Mechanics of Engineered Cardiac Microtissues. , 2012, , .		4
48	Magnetic Microtissue Stretching System to Study the Mechanobiology of 3D Fibroblast Populated Collagen Matrix. , 2012, , .		0
49	Polyelectrolyte Multilayer Nanoshells With Hydrophobic Nanodomains for Delivery of Paclitaxel. , 2012, , .		0
50	Necking and Failure of Constrained Contractile 3D Microtissues: Role of Geometry and Stiffness. , 2013, , .		0