Thomas Boudou

List of Publications by Citations

50 papers	3,222 citations	29 h-index	55 g-index
55 ext. papers	3,557 ext. citations	8.2 avg, IF	5.03 L-index

#	Paper	IF	Citations
50	Multiple functionalities of polyelectrolyte multilayer films: new biomedical applications. *Advanced Materials*, **2010**, 22, 441-67	24	610
49	A hitchhiker's guide to mechanobiology. *Developmental Cell*, **2011**, 21, 35-47	10.2	343
48	A microfabricated platform to measure and manipulate the mechanics of engineered cardiac microtissues. *Tissue Engineering - Part A*, **2012**, 18, 910-9	3.9	289
47	Formation and optogenetic control of engineered 3D skeletal muscle bioactuators. *Lab on A Chip*, **2012**, 12, 4976-85	7.2	198
46	Polysaccharide-based polyelectrolyte multilayers. *Current Opinion in Colloid and Interface Science*, **2010**, 15, 417-426	7.6	149
45	Free-standing polyelectrolyte membranes made of chitosan and alginate. *Biomacromolecules*, **2013**, 14, 1653-60	6.9	117
44	Presentation of BMP-2 from a soft biopolymeric film unveils its activity on cell adhesion and migration. *Advanced Materials*, **2011**, 23, H111-8	24	102
43	An extended relationship for the characterization of Young's modulus and Poisson's ratio of tunable polyacrylamide gels. *Biorheology*, **2006**, 43, 721-8	1.7	96
42	Surface functionalization of hyaluronic acid hydrogels by polyelectrolyte multilayer films. *Biomaterials*, **2011**, 32, 5590-9	15.6	92
41	Internal composition versus the mechanical properties of polyelectrolyte multilayer films: the influence of chemical cross-linking. *Langmuir*, **2009**, 25, 13809-19	4	75
40	Decoupling cell and matrix mechanics in engineered microtissues using magnetically actuated microcantilevers. *Advanced Materials*, **2013**, 25, 1699-705	24	74
39	Variation of polyelectrolyte film stiffness by photo-cross-linking: a new way to control cell adhesion. *Langmuir*, **2009**, 25, 3556-63	4	74
38	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, 1677-85	2.9	64
37	Micropore-induced capillarity enhances bone distribution in vivo in biphasic calcium phosphate scaffolds. *Acta Biomaterialia*, **2016**, 44, 144-54	10.8	60
36	Spatio-Temporal Control of LbL Films for Biomedical Applications: From 2D to 3D. *Advanced Healthcare Materials*, **2015**, 4, 811-30	10.1	57
35	Polysaccharide-blend multilayers containing hyaluronan and heparin as a delivery system for rhBMP-2. *Small*, **2010**, 6, 651-62	11	55
34	In vivo measurement of human brain elasticity using a light aspiration device. *Medical Image Analysis*, **2009**, 13, 673-8	15.4	53

33	Gradients of physical and biochemical cues on polyelectrolyte multilayer films generated via microfluidics. *Lab on A Chip*, **2013**, 13, 1562-70	7.2	52
32	Nonlinear elastic properties of polyacrylamide gels: implications for quantification of cellular forces. *Biorheology*, **2009**, 46, 191-205	1.7	44
31	Contact-Killing Polyelectrolyte Microcapsules Based on Chitosan Derivatives. *Advanced Functional Materials*, **2010**, 20, 3303-3312	15.6	44
30	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, L4-16	5.8	43
29	Polyelectrolyte multilayer nanofilms used as thin materials for cell mechano-sensitivity studies. *Macromolecular Bioscience*, **2011**, 11, 77-89	5.5	42
28	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	3.8	38
27	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, 20923-8	11.5	38
26	Magneto-active substrates for local mechanical stimulation of living cells. *Scientific Reports*, **2018**, 8, 1464	4.9	36
25	Polyelectrolyte multilayer nanoshells with hydrophobic nanodomains for delivery of Paclitaxel. *Journal of Controlled Release*, **2012**, 159, 403-412	11.7	35
24	Hydrophobic shell loading of biopolyelectrolyte capsules. *Advanced Materials*, **2011**, 23, H200-4	24	33
23	Substrate Stiffness Combined with Hepatocyte Growth Factor Modulates Endothelial Cell Behavior. *Biomacromolecules*, **2016**, 17, 2767-76	6.9	31
22	Rigidity-patterned polyelectrolyte films to control myoblast cell adhesion and spatial organization. *Advanced Functional Materials*, **2013**, 23, 3432-3442	15.6	29
21	Multiscale Porosity Directs Bone Regeneration in Biphasic Calcium Phosphate Scaffolds. *ACS Biomaterials Science and Engineering*, **2017**, 3, 2768-2778	5.5	24
20	Confinement-Induced Transition between Wavelike Collective Cell Migration Modes. *Physical Review Letters*, **2019**, 122, 168101	7.4	24
19	Microfabrication of a platform to measure and manipulate the mechanics of engineered microtissues. *Methods in Cell Biology*, **2014**, 121, 191-211	1.8	23
18	Stiffness-dependent cellular internalization of matrix-bound BMP-2 and its relation to Smad and non-Smad signaling. *Acta Biomaterialia*, **2016**, 46, 55-67	10.8	22
17	Signal mingle: Micropatterns of BMP-2 and fibronectin on soft biopolymeric films regulate myoblast shape and SMAD signaling. *Scientific Reports*, **2017**, 7, 41479	4.9	21
16	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	2.3	21

15	Bio-functionalization of silicon carbide nanostructures for SiC nanowire-based sensors realization. *Journal of Nanoscience and Nanotechnology*, **2014**, 14, 3391-7	1.3	18
14	Alkylamino hydrazide derivatives of hyaluronic acid: synthesis, characterization in semidilute aqueous solutions, and assembly into thin multilayer films. *Biomacromolecules*, **2009**, 10, 2875-84	6.9	18
13	Construction and myogenic differentiation of 3D myoblast tissues fabricated by fibronectin-gelatin nanofilm coating. *Biochemical and Biophysical Research Communications*, **2016**, 474, 515-521	3.4	17
12	Quiescence of human muscle stem cells is favored by culture on natural biopolymeric films. *Stem Cell Research and Therapy*, **2017**, 8, 104	8.3	15
11	Amyloid-like aggregates formation by blood plasma fibronectin. *International Journal of Biological Macromolecules*, **2017**, 97, 733-743	7.9	11
10	Differences in Morphology and Traction Generation of Cell Lines Representing Different Stages of Osteogenesis. *Journal of Biomechanical Engineering*, **2015**, 137, 124503	2.1	9
9	Magnetic approaches to study collective three-dimensional cell mechanics in long-term cultures (invited). *Journal of Applied Physics*, **2014**, 115, 172616	2.5	9
8	Quick and easy microfabrication of T-shaped cantilevers to generate arrays of microtissues. *Biomedical Microdevices*, **2016**, 18, 43	3.7	6
7	Beyond mice: Emerging and transdisciplinary models for the study of early-onset myopathies. *Seminars in Cell and Developmental Biology*, **2017**, 64, 171-180	7.5	4
6	Oscillations in collective cell migration **2021**, 157-192		3
5	On the spatiotemporal regulation of cell tensional state. *Experimental Cell Research*, **2019**, 378, 113-117	4.2	2
4	A Microfabricated Platform to Measure and Manipulate the Mechanics of Engineered Cardiac Microtissues **2012**,		2
3	Photocrosslinked Polyelectrolyte Films of ControlledStiffness to Direct Cell Behavior **2015**, 45-64		
2	Matrix-Bound Presentation of Bone Morphogenetic Protein 2 by Multilayer Films: Fundamental Studies and Applicationsto Orthopedics **2015**, 453-486		
1	Polyelectrolyte Multilayer Films Based on Polysaccharides: From Physical Chemistry to the Control of Cell Differentiation **2012**, 659-690		