Britta Trappmann

List of Publications by Year in Descending Order

24 papers	2,976 citations	17 h-index	30 g-index
30 ext. papers	3,386 ext. citations	11.9 avg, IF	4.81 L-index

#	Paper	IF	Citations
24	Nonswelling and Hydrolytically Stable Hydrogels Uncover Cellular Mechanosensing in 3D.. *Advanced Science*, **2022**, e2105325	13.6	2
23	Blutgefäße aus dem Labor – neue Matrixeigenschaften zur Gefäßneubildung. *BioSpektrum*, **2022**, 28, 149-151	0.1	
22	3D biomimetic platform reveals the first interactions of the embryo and the maternal blood vessels. *Developmental Cell*, **2021**, 56, 3276-3287.e8	10.2	3
21	Synthetic extracellular matrices with tailored adhesiveness and degradability support lumen formation during angiogenic sprouting. *Nature Communications*, **2021**, 12, 3402	17.4	5
20	PECAM-1 supports leukocyte diapedesis by tension-dependent dephosphorylation of VE-cadherin. *EMBO Journal*, **2021**, 40, e106113	13	5
19	Pulmonary pericytes regulate lung morphogenesis. *Nature Communications*, **2018**, 9, 2448	17.4	42
18	Matrix degradability controls multicellularity of 3D cell migration. *Nature Communications*, **2017**, 8, 371	17.4	145
17	Cell-mediated fibre recruitment drives extracellular matrix mechanosensing in engineered fibrillar microenvironments. *Nature Materials*, **2015**, 14, 1262-8	27	356
16	A DNA-based molecular probe for optically reporting cellular traction forces. *Nature Methods*, **2014**, 11, 1229-32	21.6	133
15	Remodeling of fibrous extracellular matrices by contractile cells: predictions from discrete fiber network simulations. *Biophysical Journal*, **2014**, 107, 1829-1840	2.9	112
14	Micropatterned multicolor dynamically adhesive substrates to control cell adhesion and multicellular organization. *Langmuir*, **2014**, 30, 1327-35	4	21
13	Microfluidics embedded within extracellular matrix to define vascular architectures and pattern diffusive gradients. *Lab on A Chip*, **2013**, 13, 3246-52	7.2	126
12	How cells sense extracellular matrix stiffness: a materials perspective. *Current Opinion in Biotechnology*, **2013**, 24, 948-53	11.4	140
11	Mimicking normal tissue architecture and perturbation in cancer with engineered micro-epidermis. *Biomaterials*, **2012**, 33, 5221-9	15.6	36
10	Polyglycerol-derived amphiphiles for the solubilization of single-walled carbon nanotubes in water: a structure-property study. *ChemPhysChem*, **2012**, 13, 203-11	3.2	26
9	Extracellular-matrix tethering regulates stem-cell fate. *Nature Materials*, **2012**, 11, 642-9	27	1156
8	Amphiphile replacement on carbon nanotube surfaces: Effect of aromatic groups on the interaction strength. *Physica Status Solidi (B): Basic Research*, **2011**, 248, 2532-2535	1.3	9

7	Actin and serum response factor transduce physical cues from the microenvironment to regulate epidermal stem cell fate decisions. *Nature Cell Biology*, **2010**, 12, 711-8	23.4	351
6	A new family of nonionic dendritic amphiphiles displaying unexpected packing parameters in micellar assemblies. *Journal of the American Chemical Society*, **2010**, 132, 11119-24	16.4	74
5	Exploiting the superior protein resistance of polymer brushes to control single cell adhesion and polarisation at the micron scale. *Biomaterials*, **2010**, 31, 5030-41	15.6	85
4	Polyglycerol-derived amphiphiles for single walled carbon nanotube suspension. *Chemical Physics Letters*, **2010**, 493, 147-150	2.5	31
3	Interaction between single-walled carbon nanotubes and alkyl-polyglycerol derivatives. *Physica Status Solidi (B): Basic Research*, **2010**, 247, 2758-2761	1.3	10
2	Mechanically induced generation of counterions inside surface-grafted charged macromolecular films: towards enhanced mechanotransduction in artificial systems. *Angewandte Chemie - International Edition*, **2006**, 45, 7440-3	16.4	54
1	Mechanically Induced Generation of Counterions Inside Surface-Grafted Charged Macromolecular Films: Towards Enhanced Mechanotransduction in Artificial Systems. *Angewandte Chemie*, **2006**, 118, 7600-7603	3.6	12