Anton Zilman

List of Publications by Year
in descending order

34 papers	3,124 citations	361045 20 h-index	360668 35 g-index
40 all docs	40 docs citations	40 times ranked	4832 citing authors

#	Article	IF	Citations
1	The entry of nanoparticles into solid tumours. Nature Materials, 2020, 19, 566-575.	13.3	1,036
2	Mechanism of hard-nanomaterial clearance by theÂliver. Nature Materials, 2016, 15, 1212-1221.	13.3	686
3	Artificial nanopores that mimic the transport selectivity of the nuclear pore complex. Nature, 2009, 457, 1023-1027.	13.7	264
4	Phenotype Determines Nanoparticle Uptake by Human Macrophages from Liver and Blood. ACS Nano, 2017, 11, 2428-2443.	7.3	180
5	Efficiency, Selectivity, and Robustness of Nucleocytoplasmic Transport. PLoS Computational Biology, 2007, 3, e125.	1.5	95
6	Large cargo transport by nuclear pores: implications for the spatial organization of FG-nucleoporins. EMBO Journal, 2013, 32, 3220-3230.	3.5	80
7	Simple biophysics underpins collective conformations of the intrinsically disordered proteins of the Nuclear Pore Complex. ELife, 2016, 5, .	2.8	69
8	Protein Transport by the Nuclear Pore Complex: Simple Biophysics of a Complex Biomachine. Biophysical Journal, 2017, 113, 6-14.	0.2	62
9	Effects of Multiple Occupancy and Interparticle Interactions on Selective Transport through Narrow Channels: Theory versus Experiment. Biophysical Journal, 2009, 96, 1235-1248.	0.2	57
10	Enhancement of Transport Selectivity through Nano-Channels by Non-Specific Competition. PLoS Computational Biology, 2010, 6, e1000804.	1.5	57
11	Stochastic Models of Lymphocyte Proliferation and Death. PLoS ONE, 2010, 5, e12775.	1.1	52
12	Physics of the nuclear pore complex: Theory, modeling and experiment. Physics Reports, 2021, 921, 1-53.	10.3	44
13	Morphological control of grafted polymer films via attraction to small nanoparticle inclusions. Physical Review E, 2012, 86, 031806.	0.8	42
14	Morphology of Polymer Brushes Infiltrated by Attractive Nanoinclusions of Various Sizes. Langmuir, 2013, 29, 8584-8591.	1.6	39
15	Effects of Jamming on Nonequilibrium Transport Times in Nanochannels. Physical Review Letters, 2009, 103, 128103.	2.9	34
16	Molecular determinants of large cargo transport into the nucleus. ELife, 2020, 9, .	2.8	31
17	A Polymer-Brush-Based Nanovalve Controlled by Nanoparticle Additives: Design Principles. Journal of Physical Chemistry B, 2015, 119, 11858-11866.	1.2	26
18	Molecular Counting with Localization Microscopy: A Bayesian Estimate Based on Fluorophore Statistics. Biophysical Journal, 2017, 112, 1777-1785.	0.2	26

#	Article	IF	Citations
19	Aggregation, Phase Separation and Spatial Morphologies of the Assemblies of FG Nucleoporins. Journal of Molecular Biology, 2018, 430, 4730-4740.	2.0	25
20	Free Energy of Nanoparticle Binding to Multivalent Polymeric Substrates. Journal of Physical Chemistry B, 2017, 121, 6425-6435.	1.2	21
21	Karyopherin enrichment and compensation fortifies the nuclear pore complex against nucleocytoplasmic leakage. Journal of Cell Biology, 2022, 221, .	2.3	19
22	Precise control of polymer coated nanopores by nanoparticle additives: Insights from computational modeling. Journal of Chemical Physics, 2016, 145, .	1.2	17
23	The Role of Cohesiveness in the Permeability ofÂtheÂSpatial Assemblies of FG Nucleoporins. Biophysical Journal, 2019, 116, 1204-1215.	0.2	17
24	Crowding effects in non-equilibrium transport through nano-channels. Journal of Physics Condensed Matter, 2010, 22, 454130.	0.7	14
25	Physical modeling of multivalent interactions in the nuclear pore complex. Biophysical Journal, 2021, 120, 1565-1577.	0.2	14
26	Investigating molecular crowding within nuclear pores using polarization-PALM. ELife, 2017, 6, .	2.8	14
27	Effects of cross-linking on partitioning of nanoparticles into a polymer brush: Coarse-grained simulations test simple approximate theories. Journal of Chemical Physics, 2018, 148, 024902.	1.2	11
28	Effects of niche overlap on coexistence, fixation and invasion in a population of two interacting species. Royal Society Open Science, 2020, 7, 192181.	1.1	11
29	Roles of phenotypic heterogeneity and microenvironment feedback in early tumor development. Physical Review E, 2021, 103, 032407.	0.8	9
30	Physical approaches to receptor sensing and ligand discrimination. Current Opinion in Systems Biology, 2019, 18, 111-121.	1.3	6
31	Pleiotropy enables specific and accurate signaling in the presence of ligand cross talk. Physical Review E, 2021, 103, 042401.	0.8	6
32	Anomalous viscosity-time behavior of polysaccharide dispersions. Journal of Chemical Physics, 2018, 149, 163320.	1.2	4
33	Determinants of Ligand Specificity and Functional Plasticity in Type I Interferon Signaling. Frontiers in Immunology, 2021, 12, 748423.	2.2	4
34	Different time scales in dynamic systems with multiple outcomes. Journal of Chemical Physics, 2020, 153, 054107.	1.2	3