Rony Granek

List of Publications by Year
in descending order

70 papers	2,995 citations	236925 25 h-index	161849 54 g-index
75 all docs	75 docs citations	75 times ranked	2535 citing authors

#	Article	IF	Citations
1	Stress relaxation in living polymers: Results from a Poisson renewal model. Journal of Chemical Physics, 1992, 96, 4758-4767.	3.0	452
2	Enhanced Diffusion in Active Intracellular Transport. Physical Review Letters, 2000, 85, 5655-5658.	7.8	394
3	Undulations and Dynamic Structure Factor of Membranes. Physical Review Letters, 1996, 77, 4788-4791.	7.8	279
4	Diffusion and directed motion in cellular transport. Physical Review E, 2002, 66, 011916.	2.1	209
5	From Semi-Flexible Polymers to Membranes: Anomalous Diffusion and Reptation. Journal De Physique II, 1997, 7, 1761-1788.	0.9	145
6	Undulation instability of lamellar phases under shear: A mechanism for onion formation?. European Physical Journal B, 1999, 11, 593-608.	1.5	104
7	Nuclear Localization Signal Peptides Induce Molecular Delivery along Microtubules. Biophysical Journal, 2005, 89, 2134-2145.	0.5	99
8	Fractons in Proteins: Can They Lead to Anomalously Decaying Time Autocorrelations?. Physical Review Letters, 2005, 95, 098106.	7.8	83
9	Membrane dynamics and structure factor. Chemical Physics, 2002, 284, 195-204.	1.9	77
10	Proteins: Coexistence of Stability and Flexibility. Physical Review Letters, 2008, 100, 208101.	7.8	71
11	Semiflexible Polymer Network: A View From Inside. Physical Review Letters, 1998, 80, 1106-1109.	7.8	70
12	Anomalies in the vibrational dynamics of proteins are a consequence of fractal-like structure. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13696-13700.	7.1	57
13	Fluorescence Correlation Spectroscopy Close to a Fluctuating Membrane. Biophysical Journal, 2003, 84, 2005-2020.	0.5	55
14	Relaxation Dynamics of Semiflexible Polymers. Physical Review Letters, 2004, 92, 098101.	7.8	41
15	Nucleus-Targeted Drug Delivery: Theoretical Optimization of Nanoparticles Decoration for Enhanced Intracellular Active Transport. Nano Letters, 2014, 14, 2515-2521.	9.1	40
16	Dip in G''(.omega.) of Polymer Melts and Semidilute Solutions. Langmuir, 1994, 10, 1627-1629.	3.5	39
17	Anomalous motion of membranes under a localized external potential. Europhysics Letters, 2001, 56, 15-21.	2.0	38
18	Active transport on disordered microtubule networks: The generalized random velocity model. Physical Review E, 2008, 78, 051912.	2.1	35

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19	Microtubules, motor proteins, and anomalous mean squared displacements. Chemical Physics, 2002, 284, 389-397.	1.9	33
20	Correlated dynamic percolation: Many bond effectiveâ€medium theory. Journal of Chemical Physics, 1989, 90, 3784-3794.	3.0	32
21	Dynamics of spontaneous emulsification. Journal De Physique II, 1993, 3, 829-849.	0.9	32
22	Enhanced Transverse Diffusion in Active Biomembranes. Physical Review Letters, 1999, 83, 872-875.	7.8	29
23	Cooperativity in Thermal and Force-Induced Protein Unfolding: Integration of Crack Propagation and Network Elasticity Models. Physical Review Letters, 2013, 110, 138101.	7.8	29
24	Dynamic percolation theory for diffusion of interacting particles. Journal of Chemical Physics, 1990, 92, 1329-1338.	3.0	28
25	Crystalline Films of Interdigitated Structures Formed via Amidiniumâ^'Carboxylate Interactions at the Airâ^'Water Interface. Journal of the American Chemical Society, 2001, 123, 3771-3783.	13.7	27
26	Monte Carlo and meanâ€field studies of phase evolution in concentrated surfactant solutions. Journal of Chemical Physics, 1995, 103, 8764-8782.	3.0	26
27	Sponge phase of surfactant solutions: An unusual dynamic structure factor. Physical Review A, 1992, 46, 3319-3334.	2.5	25
28	Dynamics of Rayleigh-like Instability Induced by Laser Tweezers in Tubular Vesicles of Self-Assembled Membranes. Journal De Physique II, 1995, 5, 1349-1370.	0.9	25
29	Managing an evolving pandemic: Cryptic circulation of the Delta variant during the Omicron rise. Science of the Total Environment, 2022, 836, 155599.	8.0	24
30	Buckling of Amphiphilic Monolayers Induced by Head-Tail Asymmetry. Journal De Physique II, 1996, 6, 999-1022.	0.9	23
31	Membrane undulations in a structured fluid: Universal dynamics at intermediate length and time scales. European Physical Journal E, 2018, 41, 1.	1.6	23
32	Epidemiological model for the inhomogeneous spatial spreading of COVID-19 and other diseases. PLoS ONE, 2021, 16, e0246056.	2.5	22
33	Coexistence of Flexibility and Stability of Proteins: An Equation of State. PLoS ONE, 2009, 4, e7296.	2.5	21
34	Membrane surrounded by viscoelastic continuous media: anomalous diffusion and linear response to force. Soft Matter, 2011, 7, 5281.	2.7	20
35	Spontaneous Curvature-Induced Rayleigh-like Instability in Swollen Cylindrical Micelles. Langmuir, 1996, 12, 5022-5027.	3.5	19
36	Dynamics of fractal sol-gel polymeric clusters. Physical Review E, 1998, 58, R2725-R2728.	2.1	19

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37	Vibrational shortcut to the mean-first-passage-time problem. Physical Review E, 2010, 81, 040103.	2.1	19
38	Proteins as fractals: Role of the hydrodynamic interaction. Physical Review E, 2011, 83, 020902.	2.1	17
39	Dynamic Structure Factor of Vibrating Fractals. Physical Review Letters, 2012, 108, 068101.	7.8	17
40	Relaxation dynamics of a single DNA molecule. Physical Review E, 2005, 71, 061920.	2.1	16
41	Dynamic structure factor of vibrating fractals: Proteins as a case study. Physical Review E, 2012, 85, 011906.	2.1	15
42	Dynamics of ionic motion in polymeric ionic conductors. Solid State Ionics, 1988, 28-30, 120-128.	2.7	14
43	Smecticâ€Ato bilayer evolution in concentrated surfactant solutions: The role of spontaneous curvature. Journal of Chemical Physics, 1994, 101, 4331-4342.	3.0	14
44	Tensorial elastic network model for protein dynamics: Integration of the anisotropic network model with bondâ€bending and twist elasticities. Proteins: Structure, Function and Bioinformatics, 2012, 80, 2692-2700.	2.6	12
45	Dynamic bond percolation theory for diffusion of interacting particles: Tracer diffusion in a binary mixture lattice gas. Journal of Chemical Physics, 1990, 93, 5918-5934.	3.0	11
46	Kinetics of actin networks formation measured by time resolved particle-tracking microrheology. Soft Matter, 2020, 16, 7869-7876.	2.7	11
47	Tracer diffusion of interacting particles on incomplete lattices: Effective medium approximation. Journal of Chemical Physics, 1990, 93, 3420-3426.	3.0	10
48	Dynamic Structure Factor of Sponge Phases. Europhysics Letters, 1992, 19, 499-504.	2.0	9
49	Comment on: Selfâ€consistent theory of polymer dynamics in melts. Journal of Chemical Physics, 1992, 97, 3873-3874.	3.0	9
50	General mapping between random walks and thermal vibrations in elastic networks: Fractal networks as a case study. Physical Review E, 2010, 82, 041132.	2.1	9
51	N-terminal-mediated oligomerization of DnaA drives the occupancy-dependent rejuvenation of the protein on the membrane. Bioscience Reports, 2015, 35, .	2.4	7
52	Sufficient minimal model for DNA denaturation: Integration of harmonic scalar elasticity and bond energies. Journal of Chemical Physics, 2016, 145, 144101.	3.0	6
53	Multimotor Driven Cargos: From Single Motor under Load to the Role of Motorâ€“Motor Coupling. Journal of Physical Chemistry B, 2016, 120, 6319-6326.	2.6	6
54	Manipulation of double-stranded DNA melting by force. Physical Review E, 2017, 96, 032417.	2.1	6

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55	Nano-Particles Carried by Multiple Dynein Motors Self-Regulate Their Number of Actively Participating Motors. International Journal of Molecular Sciences, 2021, 22, 8893.	4.1	6
56	Vibrational energy transfer in solutions: From diffusive to impulsive binary collisions. Journal of Chemical Physics, 1988, 89, 5589-5597.	3.0	5
57	Stress Relaxation in Polymer Melts and Solutions: Bridging between the Breathing and Reptation Regimes. Macromolecules, 1995, 28, 5370-5371.	4.8	5
58	Protein unfolding from free-energy calculations: Integration of the Gaussian network model with bond binding energies. Physical Review E, 2015, 91, 022708.	2.1	4
59	Comment on â€œDynamics of Phospholipid Membranes beyond Thermal Undulationsâ€. Journal of Physical Chemistry B, 2019, 123, 5665-5666.	2.6	4
60	Mechanical properties of dynamically disordered networks. Journal of Non-Crystalline Solids, 1991, 131-133, 1018-1021.	3.1	3
61	Temperature-induced unfolding behavior of proteins studied by tensorial elastic network model. Proteins: Structure, Function and Bioinformatics, 2016, 84, 1767-1775.	2.6	3
62	Can one detect intermediate denaturation states of DNA sequences by following the equilibrium openâ€"close dynamic fluctuations of a single base pair?. Journal of Chemical Physics, 2022, 156, 164907.	3.0	3
63	Spatio-temporal spread of COVID-19: Comparison of the inhomogeneous SEPIR model and data from South Carolina. PLoS ONE, 2022, 17, e0268995.	2.5	3
64	Lattice vibrations in time-fluctuating percolation networks: Application to Brillouin scattering from glasses and liquids. Physical Review B, 1992, 45, 12244-12259.	3.2	2
65	Directional Stepping Model for Yeast Dynein: Longitudinal- and Side-Step Distributions. Biophysical Journal, 2019, 117, 1892-1899.	0.5	2
66	Anomalous Diffusion in Active Intracellular Transport. Materials Research Society Symposia Proceedings, 2000, 651, 1.	0.1	0
67	Membrane Occupancy-Dependent Rejuvenation of DnaA Is Associated with Its Conformationally Driven Oligomerization. Biophysical Journal, 2010, 98, 90a.	0.5	0
68	Anomalies in the Vibrational Dynamics of Proteins are a Consequence of Fractal-Like Structure. Biophysical Journal, 2011, 100, 223a-224a.	0.5	0
69	Proteins: Coexistence of Stability and Flexibility. , 2008, , .		0
70	Dynamic Percolation Theory for Diffusion of Interacting Particles: Tracer Diffusion in a Multi-Component Lattice-Gas. NATO ASI Series Series B: Physics, 1991, , 437-443.	0.2	0