

# Rony Granek

## List of Publications by Year in descending order

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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	Can one detect intermediate denaturation states of DNA sequences by following the equilibrium open-close dynamic fluctuations of a single base pair?. Journal of Chemical Physics, 2022, 156, 164907.	3.0	3
2	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
3	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
4	Epidemiological model for the inhomogeneous spatial spreading of COVID-19 and other diseases. PLoS ONE, 2021, 16, e0246056.	2.5	22
5	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
6	Kinetics of actin networks formation measured by time resolved particle-tracking microrheology. Soft Matter, 2020, 16, 7869-7876.	2.7	11
7	Directional Stepping Model for Yeast Dynein: Longitudinal- and Side-Step Distributions. Biophysical Journal, 2019, 117, 1892-1899.	0.5	2
8	Comment on "Dynamics of Phospholipid Membranes beyond Thermal Undulations". Journal of Physical Chemistry B, 2019, 123, 5665-5666.	2.6	4
9	Membrane undulations in a structured fluid: Universal dynamics at intermediate length and time scales. European Physical Journal E, 2018, 41, 1.	1.6	23
10	Manipulation of double-stranded DNA melting by force. Physical Review E, 2017, 96, 032417.	2.1	6
11	Sufficient minimal model for DNA denaturation: Integration of harmonic scalar elasticity and bond energies. Journal of Chemical Physics, 2016, 145, 144101.	3.0	6
12	Temperature-induced unfolding behavior of proteins studied by tensorial elastic network model. Proteins: Structure, Function and Bioinformatics, 2016, 84, 1767-1775.	2.6	3
13	Multimotor Driven Cargos: From Single Motor under Load to the Role of Motor-Motor Coupling. Journal of Physical Chemistry B, 2016, 120, 6319-6326.	2.6	6
14	N-terminal-mediated oligomerization of DnaA drives the occupancy-dependent rejuvenation of the protein on the membrane. Bioscience Reports, 2015, 35, .	2.4	7
15	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
16	Nucleus-Targeted Drug Delivery: Theoretical Optimization of Nanoparticles Decoration for Enhanced Intracellular Active Transport. Nano Letters, 2014, 14, 2515-2521.	9.1	40
17	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
18	Dynamic structure factor of vibrating fractals: Proteins as a case study. Physical Review E, 2012, 85, 011906.	2.1	15

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19	Dynamic Structure Factor of Vibrating Fractals. <i>Physical Review Letters</i> , 2012, 108, 068101.	7.8	17
20	Tensorial elastic network model for protein dynamics: Integration of the anisotropic network model with bending and twist elasticities. <i>Proteins: Structure, Function and Bioinformatics</i> , 2012, 80, 2692-2700.	2.6	12
21	Membrane surrounded by viscoelastic continuous media: anomalous diffusion and linear response to force. <i>Soft Matter</i> , 2011, 7, 5281.	2.7	20
22	Anomalies in the Vibrational Dynamics of Proteins are a Consequence of Fractal-Like Structure. <i>Biophysical Journal</i> , 2011, 100, 223a-224a.	0.5	0
23	Proteins as fractals: Role of the hydrodynamic interaction. <i>Physical Review E</i> , 2011, 83, 020902.	2.1	17
24	Vibrational shortcut to the mean-first-passage-time problem. <i>Physical Review E</i> , 2010, 81, 040103.	2.1	19
25	Anomalies in the vibrational dynamics of proteins are a consequence of fractal-like structure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 13696-13700.	7.1	57
26	Membrane Occupancy-Dependent Rejuvenation of DnaA Is Associated with Its Conformationally Driven Oligomerization. <i>Biophysical Journal</i> , 2010, 98, 90a.	0.5	0
27	General mapping between random walks and thermal vibrations in elastic networks: Fractal networks as a case study. <i>Physical Review E</i> , 2010, 82, 041132.	2.1	9
28	Coexistence of Flexibility and Stability of Proteins: An Equation of State. <i>PLoS ONE</i> , 2009, 4, e7296.	2.5	21
29	Proteins: Coexistence of Stability and Flexibility. <i>Physical Review Letters</i> , 2008, 100, 208101.	7.8	71
30	Active transport on disordered microtubule networks: The generalized random velocity model. <i>Physical Review E</i> , 2008, 78, 051912.	2.1	35
31	Proteins: Coexistence of Stability and Flexibility. , 2008, , .		0
32	Fractons in Proteins: Can They Lead to Anomalously Decaying Time Autocorrelations?. <i>Physical Review Letters</i> , 2005, 95, 098106.	7.8	83
33	Relaxation dynamics of a single DNA molecule. <i>Physical Review E</i> , 2005, 71, 061920.	2.1	16
34	Nuclear Localization Signal Peptides Induce Molecular Delivery along Microtubules. <i>Biophysical Journal</i> , 2005, 89, 2134-2145.	0.5	99
35	Relaxation Dynamics of Semiflexible Polymers. <i>Physical Review Letters</i> , 2004, 92, 098101.	7.8	41
36	Fluorescence Correlation Spectroscopy Close to a Fluctuating Membrane. <i>Biophysical Journal</i> , 2003, 84, 2005-2020.	0.5	55

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37	Diffusion and directed motion in cellular transport. <i>Physical Review E</i> , 2002, 66, 011916.	2.1	209
38	Microtubules, motor proteins, and anomalous mean squared displacements. <i>Chemical Physics</i> , 2002, 284, 389-397.	1.9	33
39	Membrane dynamics and structure factor. <i>Chemical Physics</i> , 2002, 284, 195-204.	1.9	77
40	Crystalline Films of Interdigitated Structures Formed via Amidinium <sup>+</sup> Carboxylate Interactions at the Air <sup>-</sup> Water Interface. <i>Journal of the American Chemical Society</i> , 2001, 123, 3771-3783.	13.7	27
41	Anomalous motion of membranes under a localized external potential. <i>Europhysics Letters</i> , 2001, 56, 15-21.	2.0	38
42	Anomalous Diffusion in Active Intracellular Transport. <i>Materials Research Society Symposia Proceedings</i> , 2000, 651, 1.	0.1	0
43	Enhanced Diffusion in Active Intracellular Transport. <i>Physical Review Letters</i> , 2000, 85, 5655-5658.	7.8	394
44	Enhanced Transverse Diffusion in Active Biomembranes. <i>Physical Review Letters</i> , 1999, 83, 872-875.	7.8	29
45	Undulation instability of lamellar phases under shear: A mechanism for onion formation?. <i>European Physical Journal B</i> , 1999, 11, 593-608.	1.5	104
46	Semiflexible Polymer Network: A View From Inside. <i>Physical Review Letters</i> , 1998, 80, 1106-1109.	7.8	70
47	Dynamics of fractal sol-gel polymeric clusters. <i>Physical Review E</i> , 1998, 58, R2725-R2728.	2.1	19
48	From Semi-Flexible Polymers to Membranes: Anomalous Diffusion and Reptation. <i>Journal De Physique II</i> , 1997, 7, 1761-1788.	0.9	145
49	Spontaneous Curvature-Induced Rayleigh-like Instability in Swollen Cylindrical Micelles. <i>Langmuir</i> , 1996, 12, 5022-5027.	3.5	19
50	Buckling of Amphiphilic Monolayers Induced by Head-Tail Asymmetry. <i>Journal De Physique II</i> , 1996, 6, 999-1022.	0.9	23
51	Undulations and Dynamic Structure Factor of Membranes. <i>Physical Review Letters</i> , 1996, 77, 4788-4791.	7.8	279
52	Dynamics of Rayleigh-like Instability Induced by Laser Tweezers in Tubular Vesicles of Self-Assembled Membranes. <i>Journal De Physique II</i> , 1995, 5, 1349-1370.	0.9	25
53	Monte Carlo and mean <sup>+</sup> field studies of phase evolution in concentrated surfactant solutions. <i>Journal of Chemical Physics</i> , 1995, 103, 8764-8782.	3.0	26
54	Stress Relaxation in Polymer Melts and Solutions: Bridging between the Breathing and Reptation Regimes. <i>Macromolecules</i> , 1995, 28, 5370-5371.	4.8	5

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55	Smectic A bilayer evolution in concentrated surfactant solutions: The role of spontaneous curvature. <i>Journal of Chemical Physics</i> , 1994, 101, 4331-4342.	3.0	14
56	Dip in $G''(\omega)$ of Polymer Melts and Semidilute Solutions. <i>Langmuir</i> , 1994, 10, 1627-1629.	3.5	39
57	Dynamics of spontaneous emulsification. <i>Journal De Physique II</i> , 1993, 3, 829-849.	0.9	32
58	Dynamic Structure Factor of Sponge Phases. <i>Europhysics Letters</i> , 1992, 19, 499-504.	2.0	9
59	Sponge phase of surfactant solutions: An unusual dynamic structure factor. <i>Physical Review A</i> , 1992, 46, 3319-3334.	2.5	25
60	Lattice vibrations in time-fluctuating percolation networks: Application to Brillouin scattering from glasses and liquids. <i>Physical Review B</i> , 1992, 45, 12244-12259.	3.2	2
61	Comment on: Self-consistent theory of polymer dynamics in melts. <i>Journal of Chemical Physics</i> , 1992, 97, 3873-3874.	3.0	9
62	Stress relaxation in living polymers: Results from a Poisson renewal model. <i>Journal of Chemical Physics</i> , 1992, 96, 4758-4767.	3.0	452
63	Mechanical properties of dynamically disordered networks. <i>Journal of Non-Crystalline Solids</i> , 1991, 131-133, 1018-1021.	3.1	3
64	Dynamic Percolation Theory for Diffusion of Interacting Particles: Tracer Diffusion in a Multi-Component Lattice-Gas. <i>NATO ASI Series Series B: Physics</i> , 1991, , 437-443.	0.2	0
65	Dynamic percolation theory for diffusion of interacting particles. <i>Journal of Chemical Physics</i> , 1990, 92, 1329-1338.	3.0	28
66	Dynamic bond percolation theory for diffusion of interacting particles: Tracer diffusion in a binary mixture lattice gas. <i>Journal of Chemical Physics</i> , 1990, 93, 5918-5934.	3.0	11
67	Tracer diffusion of interacting particles on incomplete lattices: Effective medium approximation. <i>Journal of Chemical Physics</i> , 1990, 93, 3420-3426.	3.0	10
68	Correlated dynamic percolation: Many bond effective-medium theory. <i>Journal of Chemical Physics</i> , 1989, 90, 3784-3794.	3.0	32
69	Dynamics of ionic motion in polymeric ionic conductors. <i>Solid State Ionics</i> , 1988, 28-30, 120-128.	2.7	14
70	Vibrational energy transfer in solutions: From diffusive to impulsive binary collisions. <i>Journal of Chemical Physics</i> , 1988, 89, 5589-5597.	3.0	5