Hiroshi Noguchi

List of Publications by Year
in descending order

102 papers	4,486 citations	136950 32 h-index	106344 65 g-index
102 all docs	102 docs citations	102 times ranked	3047 citing authors

#	Article	IF	Citations
1	Hydrophobic immiscibility controls self-sorting or co-assembly of peptide amphiphiles. Chemical Communications, 2022, 58, 585-588.	4.1	6
2	Binding of anisotropic curvature-inducing proteins onto membrane tubes. Soft Matter, 2022, 18, 3384-3394.	2.7	9
3	Nonequilibrium dynamics of a fluid vesicle: Turing patterns and traveling waves. Journal of Physics: Conference Series, 2022, 2207, 012017.	0.4	0
4	Effects of vapor-liquid phase transitions on sound-wave propagation: A molecular dynamics study. Physical Review Fluids, 2022, 7, .	2.5	1
5	Membrane shape deformation induced by curvature-inducing proteins consisting of chiral crescent binding and intrinsically disordered domains. Journal of Chemical Physics, 2022, 157, .	3.0	8
6	Binding of curvature-inducing proteins onto biomembranes. International Journal of Modern Physics B, 2022, 36, .	2.0	8
7	Binding of thermalized and active membrane curvature-inducing proteins. Soft Matter, 2021, 17, 5560-5573.	2.7	20
8	Undulation of a moving fluid membrane pushed by filament growth. Scientific Reports, 2021, 11, 7985.	3.3	3
9	Effects of polymers on the cavitating flow around a cylinder: A large-scale molecular dynamics analysis. Journal of Chemical Physics, 2021, 155, 014905.	3.0	3
10	Vesicle budding induced by binding of curvature-inducing proteins. Physical Review E, 2021, 104, 014410.	2.1	12
11	Reaction-diffusion waves coupled with membrane curvature. Soft Matter, 2021, 17, 6589-6596.	2.7	15
12	Binding of curvature-inducing proteins onto tethered vesicles. Soft Matter, 2021, 17, 10469-10478.	2.7	7
13	Conformation of ultra-long-chain fatty acid in lipid bilayer: Molecular dynamics study. Journal of Chemical Physics, 2020, 153, 165101.	3.0	5
14	Pattern formation in reactionâ€"diffusion system on membrane with mechanochemical feedback. Scientific Reports, 2020, 10, 19582.	3.3	21
15	Molecular dynamics simulation of soundwave propagation in a simple fluid. Journal of Chemical Physics, 2020, 153, 124504.	3.0	4
16	Effects of cavitation on KÃ¡rmÃ¡n vortex behind circular-cylinder arrays: A molecular dynamics study. Journal of Chemical Physics, 2020, 152, 034501.	3.0	9
17	Rational Design Principles of Attenuated Cationic Lytic Peptides for Intracellular Delivery of Biomacromolecules. Molecular Pharmaceutics, 2020, 17, 2175-2185.	4.6	15
18	Virtual bending method to calculate bending rigidity, saddle-splay modulus, and spontaneous curvature of thin fluid membranes. Physical Review E, 2020, 102, 053315.	2.1	2

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19	Finite-Size Effects on KÃ¡rmÃ¡n Vortex in Molecular Dynamics Simulation. Journal of the Physical Society of Japan, 2019, 88, 075003.	1.6	5
20	Curvature induction and sensing of the F-BAR protein Pacsin1 on lipid membranes via molecular dynamics simulations. Scientific Reports, 2019, 9, 14557.	3.3	29
21	Limiting shapes of confined lipid vesicles. Soft Matter, 2019, 15, 602-614.	2.7	3
22	Shape transition from elliptical to cylindrical membrane tubes induced by chiral crescent-shaped protein rods. Scientific Reports, 2019, 9, 11721.	3.3	17
23	Cup-to-vesicle transition of a fluid membrane with spontaneous curvature. Journal of Chemical Physics, 2019, 151, 094903.	3.0	12
24	Angular-momentum conservation in discretization of the Navier-Stokes equation for viscous fluids. Physical Review E, 2019, 99, 023307.	2.1	4
25	Detachment of a fluid membrane from a substrate and vesiculation. Soft Matter, 2019, 15, 8741-8748.	2.7	6
26	Polymer effects on KÃ¡rmÃ¡n vortex: Molecular dynamics study. Journal of Chemical Physics, 2018, 148, 144901.	3.0	11
27	Bilayer sheet protrusions and budding from bilayer membranes induced by hydrolysis and condensation reactions. Soft Matter, 2018, 14, 1397-1407.	2.7	8
28	Membrane structure formation induced by two types of banana-shaped proteins. Soft Matter, 2017, 13, 4099-4111.	2.7	36
29	Docosahexaenoic acid preserves visual function by maintaining correct disc morphology in retinal photoreceptor cells. Journal of Biological Chemistry, 2017, 292, 12054-12064.	3.4	113
30	Acceleration and suppression of banana-shaped-protein-induced tubulation by addition of small membrane inclusions of isotropic spontaneous curvatures. Soft Matter, 2017, 13, 7771-7779.	2.7	21
31	Nonuniqueness of local stress of three-body potentials in molecular simulations. Physical Review E, 2016, 94, 053304.	2.1	9
32	Shape Transformaiton of Biomembrane Induced by Banana-Shaped Protein Rods: Tubulation and Formation of Polyhedral Vesicles. Biophysical Journal, 2016, 110, 575a.	0.5	0
33	Construction of Nuclear Envelope Shape by a High-Genus Vesicle with Pore-Size Constraint. Biophysical Journal, 2016, 111, 824-831.	0.5	9
34	Shape deformation of lipid membranes by banana-shaped protein rods: Comparison with isotropic inclusions and membrane rupture. Physical Review E, 2016, 93, 052404.	2.1	17
35	Membrane tubule formation by banana-shaped proteins with or without transient network structure. Scientific Reports, 2016, 6, 20935.	3.3	68
36	Monte Carlo study of the frame, fluctuation and internal tensions of fluctuating membranes with fixed area. Soft Matter, 2016, 12, 2373-2380.	2.7	34

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37	Formation of polyhedral vesicles and polygonal membrane tubes induced by banana-shaped proteins. Journal of Chemical Physics, 2015, 143, 243109.	3.0	28
38	Rubber elasticity for percolation network consisting of Gaussian chains. Journal of Chemical Physics, 2015, 143, 184905.	3.0	24
39	Shape transitions of high-genus fluid vesicles. Europhysics Letters, 2015, 112, 58004.	2.0	10
40	Shape transformations of toroidal vesicles. Soft Matter, 2015, 11, 193-201.	2.7	15
41	Morphological changes of amphiphilic molecular assemblies induced by chemical reactions. Soft Matter, 2015, 11, 1403-1411.	2.7	14
42	Two- or three-step assembly of banana-shaped proteins coupled with shape transformation of lipid membranes. Europhysics Letters, 2014, 108, 48001.	2.0	31
43	Morphological variation of a lipid vesicle confined in a spherical vesicle. Physical Review E, 2014, 89, 040701.	2.1	12
44	Multiscale modeling of blood flow: from single cells to blood rheology. Biomechanics and Modeling in Mechanobiology, 2014, 13, 239-258.	2.8	200
45	Mechanical properties and microdomain separation of fluid membranes with anchored polymers. Soft Matter, 2013, 9, 9907.	2.7	11
46	Mechanical properties of a polymer network of Tetra-PEG gel. Polymer Journal, 2013, 45, 300-306.	2.7	46
47	Structure formation of surfactant membranes under shear flow. Journal of Chemical Physics, 2013, 139, 014702.	3.0	8
48	Structure formation in binary mixtures of lipids and detergents: Self-assembly and vesicle division. Journal of Chemical Physics, 2013, 138, 024907.	3.0	11
49	Effects of anchored flexible polymers on mechanical properties of model biomembranes. , 2013, , .		1
50	Structure formation of lipid membranes: Membrane self-assembly and vesicle opening-up to octopus-like micelles. , 2013, , .		1
51	Entropy-driven aggregation in multilamellar membranes. Europhysics Letters, 2013, 102, 68001.	2.0	6
52	Coarse-grained Simulations of Structure Formation in Lipid Membranes. Seibutsu Butsuri, 2013, 53, 011-014.	0.1	0
53	Ordering and arrangement of deformed red blood cells in flow through microcapillaries. New Journal of Physics, 2012, 14, 085026.	2.9	25
54	Rubber elasticity for incomplete polymer networks. Journal of Chemical Physics, 2012, 137, 224903.	3.0	40

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55	Structure formation in binary mixtures of surfactants: vesicle opening-up to bicelles and octopus-like micelles. Soft Matter, 2012, 8, 8926.	2.7	24
56	Line tension of branching junctions of bilayer membranes. Soft Matter, 2012, 8, 3146.	2.7	14
57	Deformation and clustering of red blood cells in microcapillary flows. Soft Matter, 2011, 7, 10967.	2.7	63
58	Solvent-free coarse-grained lipid model for large-scale simulations. Journal of Chemical Physics, 2011, 134, 055101.	3.0	41
59	Anisotropic surface tension of buckled fluid membranes. Physical Review E, 2011, 83, 061919.	2.1	50
60	Estimation of the bending rigidity and spontaneous curvature of fluid membranes in simulations. Physical Review E, 2011, 84, 031926.	2.1	59
61	Dynamics of fluid vesicles in flow through structured microchannels. Europhysics Letters, 2010, 89, 28002.	2.0	39
62	Dynamic modes of red blood cells in oscillatory shear flow. Physical Review E, 2010, 81, 061920.	2.1	17
63	Dynamic modes of microcapsules in steady shear flow: Effects of bending and shear elasticities. Physical Review E, 2010, 81, 056319.	2.1	13
64	Dynamical Modes of Deformed Red Blood Cells and Lipid Vesicles in Flows. Progress of Theoretical Physics Supplement, 2010, 184, 364-368.	0.1	6
65	Dynamics of Fluid Vesicles in Oscillatory Shear Flow. Journal of the Physical Society of Japan, 2010, 79, 024801.	1.6	7
66	Lipid membranes with transmembrane proteins in shear flow. Journal of Chemical Physics, 2010, 132, 025101.	3.0	11
67	Swinging and synchronized rotations of red blood cells in simple shear flow. Physical Review E, 2009, 80, 021902.	2.1	45
68	Dynamical regimes and hydrodynamic lift of viscous vesicles under shear. Physical Review E, 2009, 80, 011901.	2.1	71
69	Flow-induced clustering and alignment of vesicles and red blood cells in microcapillaries. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6039-6043.	7.1	256
70	Membrane Simulation Models from Nanometer to Micrometer Scale. Journal of the Physical Society of Japan, 2009, 78, 041007.	1.6	88
71	Transport coefficients of off-lattice mesoscale-hydrodynamics simulation techniques. Physical Review E, 2008, 78, 016706.	2.1	90
72	Transport coefficients of dissipative particle dynamics with finite time step. Europhysics Letters, 2007, 79, 36002.	2.0	25

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73	Swinging and Tumbling of Fluid Vesicles in Shear Flow. Physical Review Letters, 2007, 98, 128103.	7.8	164
74	Particle-based mesoscale hydrodynamic techniques. Europhysics Letters, 2007, 78, 10005.	2.0	107
75	Relevance of angular momentum conservation in mesoscale hydrodynamics simulations. Physical Review E, 2007, 76, 046705.	2.1	88
76	Meshless membrane model based on the moving least-squares method. Physical Review E, 2006, 73, 021903.	2.1	86
77	Dynamics of vesicle self-assembly and dissolution. Journal of Chemical Physics, 2006, 125, 164908.	3.0	78
78	Publisher's Note: Meshless membrane model based on the moving least-squares method [Phys. Rev. E73, 021903 (2006)]. Physical Review E, 2006, 73, .	2.1	2
79	Vesicle dynamics in shear and capillary flows. Journal of Physics Condensed Matter, 2005, 17, S3439-S3444.	1.8	24
80	Shape transitions of fluid vesicles and red blood cells in capillary flows. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14159-14164.	7.1	481
81	Dynamics of fluid vesicles in shear flow: Effect of membrane viscosity and thermal fluctuations. Physical Review E, 2005, 72, 011901.	2.1	184
82	Fluid Vesicles with Viscous Membranes in Shear Flow. Physical Review Letters, 2004, 93, 258102.	7.8	234
83	Anisotropic friction model of DNA electrophoresis in polymer solutions: Comparison with direct observations. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 1316-1322.	2.1	0
84	Polyhedral vesicles: A Brownian dynamics simulation. Physical Review E, 2003, 67, 041901.	2.1	27
85	Multioverlap simulations for transitions between reference configurations. Physical Review E, 2003, 68, 036126.	2.1	49
86	Structural changes of pulled vesicles: A Brownian dynamics simulation. Physical Review E, 2002, 65, 051907.	2.1	23
87	Fusion and toroidal formation of vesicles by mechanical forces: A Brownian dynamics simulation. Journal of Chemical Physics, 2002, 117, 8130-8137.	3.0	25
88	FOLDING DYNAMICS IN A SEMIFLEXIBLE POLYMER AS A MODEL OF DNA. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2002, 12, 2003-2008.	1.7	2
89	Adhesion of Nanoparticles to Vesicles: A Brownian Dynamics Simulation. Biophysical Journal, 2002, 83, 299-308.	0.5	111
90	Dynamics of DNA in entangled polymer solutions: An anisotropic friction model. Journal of Chemical Physics, 2001, 114, 7260-7266.	3.0	14

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91	Fusion pathways of vesicles: A Brownian dynamics simulation. Journal of Chemical Physics, 2001, 115, 9547-9551.	3.0	178
92	Self-assembly of amphiphiles into vesicles: A Brownian dynamics simulation. Physical Review E, 2001, 64, 041913.	2.1	189
93	Linear-Shaped Motion of DNA in Entangled Polymer Solutions under a Steady Field. Journal of the Physical Society of Japan, 2000, 69, 3792-3795.	1.6	5
94	Dynamics of DNA electrophoresis in dilute and entangled polymer solutions. Journal of Chemical Physics, 2000, 112, 9671-9678.	3.0	13
95	Various Morphology with Collapse Transition in a Homopolymer Chain. Progress of Theoretical Physics Supplement, 2000, 138, 392-393.	0.1	0
96	Folding path in a semiflexible homopolymer chain: A Brownian dynamics simulation. Journal of Chemical Physics, 2000, 113, 854-862.	3.0	55
97	A working hypothesis on the mechanism of molecular machinery. Chemical Physics Letters, 1999, 303, 10-14.	2.6	28
98	Morphological variation in a collapsed single homopolymer chain. Journal of Chemical Physics, 1998, 109, 5070-5077.	3.0	204
99	Folding transition in single long duplex DNA chain. , 1997, , 204-208.		3
100	First-order phase transition in a stiff polymer chain. Chemical Physics Letters, 1997, 278, 184-188.	2.6	61
101	Folding transition in single long duplex DNA chain. Progress in Colloid and Polymer Science, 1997, 106, 204-208.	0.5	7
102	Self-organized nanostructures constructed with a single polymer chain. Chemical Physics Letters, 1996, 261, 527-533.	2.6	92