Frank A Ferrone

List of Publications by Year
in descending order

56	3,000	304743 22	168389 53
papers	citations	h-index	g-index

59	59	59	2279
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Huntington's disease age-of-onset linked to polyglutamine aggregation nucleation. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11884-11889.	7.1	496
2	Kinetics of sickle hemoglobin polymerization. Journal of Molecular Biology, 1985, 183, 611-631.	4.2	476
3	[17] Analysis of protein aggregation kinetics. Methods in Enzymology, 1999, 309, 256-274.	1.0	469
4	Kinetics of sickle hemoglobin polymerization. Journal of Molecular Biology, 1985, 183, 591-610.	4.2	230
5	Oxygen binding by sickle cell hemoglobin polymers. Journal of Molecular Biology, 1982, 158, 251-273.	4.2	107
6	Kinetics of sickle haemoglobin polymerization in single red cells. Nature, 1982, 300, 194-197.	27.8	101
7	Polymerization and Sickle Cell Disease: A Molecular View. Microcirculation, 2004, 11, 115-128.	1.8	85
8	Micromechanics of isolated sickle cell hemoglobin fibers: bending moduli and persistence lengths 1 1Edited by I. Tinoco. Journal of Molecular Biology, 2002, 315, 601-612.	4.2	62
9	Heterogeneous Nucleation and Crowding in Sickle Hemoglobin: An Analytic Approach. Biophysical Journal, 2002, 82, 399-406.	0.5	57
10	Nucleation: The Connections Between Equilibrium and Kinetic Behavior. Methods in Enzymology, 2006, 412, 285-299.	1.0	57
11	Crowding and the polymerization of sickle hemoglobin. Journal of Molecular Recognition, 2004, 17, 497-504.	2.1	49
12	The delay time in sickle cell disease after 40 years: A paradigm assessed. American Journal of Hematology, 2015, 90, 438-445.	4.1	42
13	A 50th Order Reaction Predicted and Observed for Sickle Hemoglobin Nucleation. Journal of Molecular Biology, 1996, 256, 219-222.	4.2	40
14	Nonideality and the Nucleation of Sickle Hemoglobin. Biophysical Journal, 2000, 79, 1016-1022.	0.5	39
15	The structural link between polymerization and sickle cell disease. Journal of Molecular Biology, 1997, 265, 475-479.	4.2	32
16	Assembly of AÎ² Proceeds via Monomeric Nuclei. Journal of Molecular Biology, 2015, 427, 287-290.	4.2	32
17	The Growth of Sickle Hemoglobin Polymers. Biophysical Journal, 2011, 101, 885-891.	0.5	29
18	Sickle Hemoglobin Fibers: Mechanisms of Depolymerization. Journal of Molecular Biology, 2002, 322, 395-412.	4.2	28

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19	Molecular Crowding Limits the Role of Fetal Hemoglobin in Therapy for Sickle Cell Disease. Journal of Molecular Biology, 2005, 347, 1015-1023.	4.2	27
20	Universality of supersaturation in protein-fiber formation. Nature Structural and Molecular Biology, 2016, 23, 459-461.	8.2	25
21	Interactions between sickle hemoglobin fibers. Faraday Discussions, 2003, 123, 221-235.	3.2	24
22	A model for the sickle hemoglobin fiber using both mutation sites. Protein Science, 2000, 9, 1031-1034.	7.6	22
23	Heterogeneous Nucleation in Sickle Hemoglobin: Experimental Validation of a Structural Mechanism. Biophysical Journal, 2005, 89, 2677-2684.	0.5	22
24	Metastable Polymerization of Sickle Hemoglobin in Droplets. Journal of Molecular Biology, 2007, 369, 1170-1174.	4.2	19
25	The Effects of Erythrocyte Membranes on the Nucleation of Sickle Hemoglobin. Biophysical Journal, 2005, 88, 2815-2822.	0.5	18
26	The Microrheology of Sickle Hemoglobin Gels. Biophysical Journal, 2010, 99, 1149-1156.	0.5	17
27	Flexibility and nucleation in sickle hemoglobin 1 1Edited by M. F. Moody. Journal of Molecular Biology, 2001, 314, 851-861.	4.2	16
28	Free Energy of Sickle Hemoglobin Polymerization: A Scaled-Particle Treatment for Use with Dextran as a Crowding Agent. Biophysical Journal, 2008, 94, 3629-3634.	0.5	16
29	Sickle cell disease: Its molecular mechanism and the one drug that treats it. International Journal of Biological Macromolecules, 2016, 93, 1168-1173.	7.5	16
30	Nucleation of Sickle Hemoglobin Mixed with Hemoglobin A: Experimental and Theoretical Studies of Hybrid-Forming Mixtures. Biophysical Journal, 2011, 101, 2790-2797.	0.5	15
31	Kinetic Models and the Pathophysiology of Sickle Cell Disease. Annals of the New York Academy of Sciences, 1989, 565, 63-74.	3.8	13
32	Expression of Functional Soluble Human Î±-Globin Chains of Hemoglobin in Bacteria. Protein Expression and Purification, 2000, 20, 37-44.	1.3	12
33	Universal Metastability of Sickle Hemoglobin Polymerization. Journal of Molecular Biology, 2008, 377, 1228-1235.	4.2	12
34	The Physical Foundation of Vasoocclusion in Sickle Cell Disease. Biophysical Journal, 2012, 103, L38-L40.	0.5	12
35	Dissecting the Energies that Stabilize Sickle Hemoglobin Polymers. Biophysical Journal, 2013, 105, 2149-2156.	0.5	12
36	Sickle Hemoglobin Polymer Stability Probed by Triple and Quadruple Mutant Hybrids. Journal of Biological Chemistry, 2002, 277, 13479-13487.	3.4	11

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37	Fluctuations in Self-Assembled Sickle Hemoglobin Fibers. Langmuir, 2002, 18, 7182-7187.	3.5	9
38	The Double Nucleation Model for Sickle Cell Haemoglobin Polymerization: Full Integration and Comparison with Experimental Data. Acta Biotheoretica, 2008, 56, 103-122.	1.5	9
39	Nucleation and polymerization of sickle hemoglobin with Leu Î²88 substituted by Ala. Journal of Molecular Biology, 1997, 265, 580-589.	4.2	8
40	<scp>GBT</scp>440 increases haemoglobin oxygen affinity, reduces sickling and prolongs <scp>RBC</scp> halfâ€life in a murine model of sickle cell disease. British Journal of Haematology, 2016, 174, 499-500.	2.5	8
41	Calibrating Sickle Cell Disease. Journal of Molecular Biology, 2016, 428, 1506-1514.	4.2	8
42	Band 3 catalyzes sickle hemoglobin polymerization. Biophysical Chemistry, 2010, 146, 55-59.	2.8	5
43	The Hb A Variant (Î²73 Aspâ†'Leu) Disrupts Hb S Polymerization by a Novel Mechanism. Journal of Molecular Biology, 2006, 362, 528-538.	4.2	4
44	Fiber Depolymerization: Fracture, Fragments, Vanishing Times, and Stochastics in Sickle Hemoglobin. Biophysical Journal, 2009, 96, 655-670.	0.5	4
45	Targeting HbS Polymerization. Seminars in Hematology, 2018, 55, 53-59.	3.4	4
46	The flow of sickle blood in glass capillaries: Fundamentals and potential applications. Biophysical Journal, 2021, 120, 2138-2147.	0.5	4
47	[15] Modulated excitation spectroscopy in hemoglobin. Methods in Enzymology, 1994, 232, 292-321.	1.0	3
48	Secondary nucleation wears the BRICHOS in this family. Nature Structural and Molecular Biology, 2015, 22, 180-181.	8.2	3
49	Note: Professional grade microfluidics fabricated simply. Review of Scientific Instruments, 2016, 87, 106105.	1.3	2
50	Water, Ions, and Hemoglobin: Effects on Allostery and Polymerization. Journal of Physical Chemistry B, 2018, 122, 11591-11597.	2.6	2
51	Sickle hemoglobin polymerization: The relationship between kinetics and pathophysiology. Clinical Hemorheology and Microcirculation, 1992, 12, 163-175.	1.7	1
52	Metastable gels: A novel application of Ogston theory to sickle hemoglobin polymers. Biophysical Chemistry, 2011, 154, 99-101.	2.8	1
53	Contributory presentations/posters. Journal of Biosciences, 1999, 24, 33-198.	1.1	0
54	Fiber Depolymerization: Fracture, Fragments, Vanishing Times and Stochastics in Sickle Hemoglobin. Biophysical Journal, 2009, 96, 77a-78a.	0.5	0

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55	Ratchets, red cells, and metastability. Biophysical Reviews, 2013, 5, 217-224.	3.2	0
56	Solid nuclei and liquid droplets: A parallel treatment for 3 phase systems. Protein Science, 2018, 27, 1286-1294.	7.6	0