

# Sheref S Mansy

## List of Publications by Year in descending order

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69  
papers

3,925  
citations

136950

32  
h-index

123424

61  
g-index

73  
all docs

73  
docs citations

73  
times ranked

3410  
citing authors

#	ARTICLE	IF	CITATIONS
1	Template-directed synthesis of a genetic polymer in a model protocell. <i>Nature</i> , 2008, 454, 122-125.	27.8	618
2	Structure of a biological oxygen sensor: A new mechanism for heme-driven signal transduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 15177-15182.	7.1	380
3	Integrating artificial with natural cells to translate chemical messages that direct <i>E. coli</i> behaviour. <i>Nature Communications</i> , 2014, 5, 4012.	12.8	210
4	Thermostability of model protocell membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 13351-13355.	7.1	179
5	Two-Way Chemical Communication between Artificial and Natural Cells. <i>ACS Central Science</i> , 2017, 3, 117-123.	11.3	178
6	Gene-Mediated Chemical Communication in Synthetic Protocell Communities. <i>ACS Synthetic Biology</i> , 2018, 7, 339-346.	3.8	136
7	Flip-Flop-Induced Relaxation of Bending Energy: Implications for Membrane Remodeling. <i>Biophysical Journal</i> , 2009, 97, 3113-3122.	0.5	125
8	UV-light-driven prebiotic synthesis of iron-sulfur clusters. <i>Nature Chemistry</i> , 2017, 9, 1229-1234.	13.6	110
9	Mineral Surface Directed Membrane Assembly. <i>Origins of Life and Evolution of Biospheres</i> , 2007, 37, 67-82.	1.9	106
10	Iron-Sulfur Cluster Biosynthesis: Toward an Understanding of Cellular Machinery and Molecular Mechanism. <i>Accounts of Chemical Research</i> , 2004, 37, 719-725.	15.6	95
11	Membrane Transport in Primitive Cells. <i>Cold Spring Harbor Perspectives in Biology</i> , 2010, 2, a002188-a002188.	5.5	90
12	Multiphase Water-in-Oil Emulsion Droplets for Cell-Free Transcription-Translation. <i>Langmuir</i> , 2014, 30, 5695-5699.	3.5	86
13	Reconstructing the Emergence of Cellular Life through the Synthesis of Model Protocells. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 2009, 74, 47-54.	1.1	84
14	Characterization of an Iron-Sulfur Cluster Assembly Protein (ISU1) from <i>Schizosaccharomyces pombe</i> . <i>Biochemistry</i> , 2002, 41, 5024-5032.	2.5	82
15	A Mutant Human IscU Protein Contains a Stable [2Fe <sub>2</sub> S <sub>2</sub> ] <sup>2+</sup> Center of Possible Functional Significance. <i>Journal of the American Chemical Society</i> , 2000, 122, 6805-6806.	13.7	79
16	Iron-Sulfur Cluster Biosynthesis. <i>Journal of Biological Chemistry</i> , 2002, 277, 21397-21404.	3.4	79
17	Artificial cells drive neural differentiation. <i>Science Advances</i> , 2020, 6, .	10.3	78
18	Prebiotic iron-sulfur peptide catalysts generate a pH gradient across model membranes of late protocells. <i>Nature Catalysis</i> , 2018, 1, 616-623.	34.4	77

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19	Communicating artificial cells. <i>Current Opinion in Chemical Biology</i> , 2016, 34, 53-61.	6.1	75
20	Iron-sulfur cluster biosynthesis: characterization of <i>Schizosaccharomyces pombe</i> Isa1. <i>Journal of Biological Inorganic Chemistry</i> , 2002, 7, 526-532.	2.6	70
21	Gene Position More Strongly Influences Cell-Free Protein Expression from Operons than T7 Transcriptional Promoter Strength. <i>ACS Synthetic Biology</i> , 2014, 3, 363-371.	3.8	64
22	Cell-like systems with riboswitch controlled gene expression. <i>Chemical Communications</i> , 2011, 47, 10734.	4.1	63
23	<i>Thermotoga maritima</i> IscU. Structural Characterization and Dynamics of a New Class of Metallochaperone. <i>Journal of Molecular Biology</i> , 2003, 331, 907-924.	4.2	57
24	Model Protocells from Single-Chain Lipids. <i>International Journal of Molecular Sciences</i> , 2009, 10, 835-843.	4.1	44
25	Fluorescent Proteins and <i>in Vitro</i> Genetic Organization for Cell-Free Synthetic Biology. <i>ACS Synthetic Biology</i> , 2013, 2, 482-489.	3.8	44
26	Imidazole Is a Sensitive Probe of Steric Hindrance in the Distal Pockets of Oxygen-Binding Heme Proteins. <i>Biochemistry</i> , 1998, 37, 12452-12457.	2.5	43
27	Progress in synthesizing protocells. <i>Experimental Biology and Medicine</i> , 2019, 244, 304-313.	2.4	41
28	Cell-Free Translation Is More Variable than Transcription. <i>ACS Synthetic Biology</i> , 2017, 6, 638-647.	3.8	39
29	Crystal Structure and Stability Studies of C77S HiPIP: A Serine Ligated [4Fe-4S] Cluster. <i>Biochemistry</i> , 2002, 41, 1195-1201.	2.5	38
30	Cellular imitations. <i>Current Opinion in Chemical Biology</i> , 2012, 16, 586-592.	6.1	38
31	Treatment of Wound Infections in a Mouse Model Using Zn <sup>2+</sup> -Releasing Phage Bound to Gold Nanorods. <i>ACS Nano</i> , 2022, 16, 4756-4774.	14.6	38
32	Metal Catalysts and the Origin of Life. <i>Elements</i> , 2016, 12, 413-418.	0.5	37
33	Duplications of an iron-sulphur tripeptide leads to the formation of a protoferredoxin. <i>Chemical Communications</i> , 2016, 52, 13456-13459.	4.1	35
34	Iron-Sulfur Cluster Biosynthesis. <i>Journal of Biological Chemistry</i> , 2004, 279, 10469-10475.	3.4	33
35	Cyclophospholipids Increase Protocellular Stability to Metal Ions. <i>Small</i> , 2020, 16, e1903381.	10.0	32
36	Ethylene-Producing Bacteria That Ripen Fruit. <i>ACS Synthetic Biology</i> , 2014, 3, 935-938.	3.8	29

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37	Optimized Assembly of a Multifunctional RNA-Protein Nanostructure in a Cell-Free Gene Expression System. <i>Nano Letters</i> , 2018, 18, 2650-2657.	9.1	24
38	Iron-Sulfur Cluster Biosynthesis. Molecular Chaperone DnaK Promotes IscU-Bound [2Fe-2S] Cluster Stability and Inhibits Cluster Transfer Activity. <i>Biochemistry</i> , 2005, 44, 4284-4293.	2.5	23
39	In Vitro Selection for Small-Molecule-Triggered Strand Displacement and Riboswitch Activity. <i>ACS Synthetic Biology</i> , 2015, 4, 1144-1150.	3.8	23
40	Structure and Evolutionary Analysis of a Non-biological ATP-binding Protein. <i>Journal of Molecular Biology</i> , 2007, 371, 501-513.	4.2	18
41	Population-Level Membrane Diversity Triggers Growth and Division of Protocells. <i>Jacs Au</i> , 2021, 1, 560-568.	7.9	18
42	Toward long-lasting artificial cells that better mimic natural living cells. <i>Emerging Topics in Life Sciences</i> , 2019, 3, 597-607.	2.6	18
43	Nonreplicating Protocells. <i>Accounts of Chemical Research</i> , 2012, 45, 2125-2130.	15.6	16
44	Cysteine containing dipeptides show a metal specificity that matches the composition of seawater. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20104-20108.	2.8	13
45	Patterns of Ligands Coordinated to Metallocofactors Extracted from the Protein Data Bank. <i>Journal of Chemical Information and Modeling</i> , 2017, 57, 3162-3171.	5.4	13
46	Control of reduction thermodynamics in [2Fe-2S] ferredoxins. <i>Journal of Inorganic Biochemistry</i> , 2010, 104, 691-696.	3.5	12
47	The Encapsulation of Cell-free Transcription and Translation Machinery in Vesicles for the Construction of Cellular Mimics. <i>Journal of Visualized Experiments</i> , 2013, , e51304.	0.3	12
48	Incorporating LsrK Al <sub>2</sub> quorum quenching capability in a functionalized biopolymer capsule. <i>Biotechnology and Bioengineering</i> , 2018, 115, 278-289.	3.3	12
49	Protometabolic Reduction of NAD <sup>+</sup> with $\alpha$ -Keto Acids. <i>Jacs Au</i> , 2021, 1, 371-374.	7.9	11
50	Electron Transfer from HiPIP to the Photooxidized Tetraheme Cytochrome Subunit of <i>Allochrocatium vinosum</i> Reaction Center: New Insights from Site-Directed Mutagenesis and Computational Studies. <i>Biochemistry</i> , 2004, 43, 437-445.	2.5	10
51	Redox chemistry of the <i>Schizosaccharomyces pombe</i> ferredoxin electron-transfer domain and influence of Cys to Ser substitutions. <i>Journal of Inorganic Biochemistry</i> , 2011, 105, 806-811.	3.5	10
52	An in vitro selection for small molecule induced switching RNA molecules. <i>Methods</i> , 2016, 106, 51-57.	3.8	9
53	Vesicle Stability and Dynamics: An Undergraduate Biochemistry Laboratory. <i>Journal of Chemical Education</i> , 2014, 91, 1228-1231.	2.3	8
54	Piecing Together Cell-like Systems. <i>Current Organic Chemistry</i> , 2013, 17, 1751-1757.	1.6	7

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55	Intravesicle Isothermal DNA Replication. BMC Research Notes, 2011, 4, 128.	1.4	6
56	The Chemical Roots of Iron- Sulfur Dependent Metabolism. Biochemistry, 2017, 56, 5225-5226.	2.5	6
57	Investigation of glutathione-derived electrostatic and hydrogen-bonding interactions and their role in defining Grx5 [2Fe-2S] cluster optical spectra and transfer chemistry. Journal of Biological Inorganic Chemistry, 2018, 23, 241-252.	2.6	6
58	Spectral decomposition of iron-sulfur clusters. Analytical Biochemistry, 2021, 629, 114269.	2.4	6
59	Racing toward Fast and Effective <sup>17</sup> O Isotopic Labeling and Nuclear Magnetic Resonance Spectroscopy of N-Formyl-MLF-OH and Associated Building Blocks. Journal of Physical Chemistry B, 2021, 125, 11916-11926.	2.6	6
60	Metals Are Integral to Life as We Know It. Frontiers in Cell and Developmental Biology, 2022, 10, 864830.	3.7	6
61	Non-living predators. Nature Chemistry, 2017, 9, 107-108.	13.6	4
62	Cell-Free Synthesis of Dopamine and Serotonin in Two Steps with Purified Enzymes. Advanced Biology, 2020, 4, e2000118.	3.0	4
63	Measuring Riboswitch Activity In Vitro and in Artificial Cells with Purified Transcription-Translation Machinery. Methods in Molecular Biology, 2014, 1111, 153-164.	0.9	4
64	Histidine Ligated Iron-Sulfur Peptides. ChemBioChem, 2022, 23, .	2.6	4
65	Protometabolism as out-of-equilibrium chemistry. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	3.4	3
66	Prebiotic Environments with Mg <sup>2+</sup> and Thiophilic Metal Ions Increase the Thermal Stability of Cysteine and Non-cysteine Peptides. ACS Earth and Space Chemistry, 2022, 6, 1221-1226.	2.7	1
67	Iron-Sulfur Cluster Biosynthesis: Toward an Understanding of Cellular Machinery and Molecular Mechanism. ChemInform, 2004, 35, no.	0.0	0
68	Xenobiotic Life. , 2016, , 337-357.		0
69	Origins of life: Encapsulating Darwinian evolution. Current Biology, 2022, 32, R44-R46.	3.9	0