F Akif Tezcan

List of Publications by Year
in descending order

64 papers	6,416 citations	101543 36 h-index	106344 65 g-index
67 all docs	67 docs citations	67 times ranked	5610 citing authors

#	Article	IF	Citations
1	Nitrogenase MoFe-Protein at 1.16 A Resolution: A Central Ligand in the FeMo-Cofactor. Science, 2002, 297, 1696-1700.	12.6	1,041
2	Structural basis of biological nitrogen fixation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2005, 363, 971-984.	3.4	852
3	Metal-directed, chemically tunable assembly of one-, two- and three-dimensional crystalline protein arrays. Nature Chemistry, 2012, 4, 375-382.	13.6	332
4	Effects of Ligation and Folding on Reduction Potentials of Heme Proteins. Journal of the American Chemical Society, 1998, 120, 13383-13388.	13.7	276
5	Self-assembly of coherently dynamic, auxetic, two-dimensional protein crystals. Nature, 2016, 533, 369-373.	27.8	255
6	Metal-Directed Protein Self-Assembly. Accounts of Chemical Research, 2010, 43, 661-672.	15.6	243
7	A designed supramolecular protein assembly with in vivo enzymatic activity. Science, 2014, 346, 1525-1528.	12.6	236
8	Nitrogenase Complexes: Multiple Docking Sites for a Nucleotide Switch Protein. Science, 2005, 309, 1377-1380.	12.6	216
9	A Metal Organic Framework with Spherical Protein Nodes: Rational Chemical Design of 3D Protein Crystals. Journal of the American Chemical Society, 2015, 137, 11598-11601.	13.7	170
10	Re-engineering protein interfaces yields copper-inducible ferritin cage assembly. Nature Chemical Biology, 2013, 9, 169-176.	8.0	169
11	Electron Transfer in Nitrogenase. Chemical Reviews, 2020, 120, 5158-5193.	47.7	150
12	Hyperexpandable, self-healing macromolecular crystals with integrated polymer networks. Nature, 2018, 557, 86-91.	27.8	130
13	Metal templated design of protein interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1827-1832.	7.1	125
14	Protein Assembly by Design. Chemical Reviews, 2021, 121, 13701-13796.	47.7	123
15	Controlling Proteinâ˜Protein Interactions through Metal Coordination:â€‰ Assembly of a 16-Helix Bundle Protein. Journal of the American Chemical Society, 2007, 129, 13374-13375.	13.7	122
16	Synthetic Modularity of Proteinâ€“Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2017, 139, 8160-8166.	13.7	105
17	Exceptionally stable, redox-active supramolecular protein assemblies with emergent properties. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2897-2902.	7.1	103
18	Constructing protein polyhedra via orthogonal chemical interactions. Nature, 2020, 578, 172-176.	27.8	100

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19	Designed, Helical Protein Nanotubes with Variable Diameters from a Single Building Block. Journal of the American Chemical Society, 2015, 137, 10468-10471.	13.7	86
20	Interfacial metal coordination in engineered protein and peptide assemblies. Current Opinion in Chemical Biology, 2014, 19, 42-49.	6.1	83
21	Metal-Mediated Self-Assembly of Protein Superstructures: Influence of Secondary Interactions on Protein Oligomerization and Aggregation. Journal of the American Chemical Society, 2008, 130, 6082-6084.	13.7	74
22	Control of Protein Oligomerization Symmetry by Metal Coordination: <i>C</i>₂ and <i>C</i>₃ Symmetrical Assemblies through Cu^{II} and Ni^{II} Coordination. Inorganic Chemistry, 2009, 48, 2726-2728.	4.0	73
23	Design and Construction of Functional Supramolecular Metalloprotein Assemblies. Accounts of Chemical Research, 2019, 52, 345-355.	15.6	73
24	ATP- and Ironâˆ’Protein-Independent Activation of Nitrogenase Catalysis by Light. Journal of the American Chemical Society, 2010, 132, 13672-13674.	13.7	66
25	A Superprotein Triangle Driven by Nickel(II) Coordination: Exploiting Non-Natural Metal Ligands in Protein Self-Assembly. Journal of the American Chemical Society, 2009, 131, 9136-9137.	13.7	64
26	Metals in Proteinâ€“Protein Interfaces. Annual Review of Biophysics, 2014, 43, 409-431.	10.0	63
27	Evolution of Metal Selectivity in Templated Protein Interfaces. Journal of the American Chemical Society, 2010, 132, 8610-8617.	13.7	61
28	An Exceptionally Stable Metalâ€“Organic Framework Constructed from Chelate-Based Metalâ€“Organic Polyhedra. Journal of the American Chemical Society, 2020, 142, 6907-6912.	13.7	58
29	An efficient, step-economical strategy for the design of functional metalloproteins. Nature Chemistry, 2019, 11, 434-441.	13.6	57
30	ATP-Uncoupled, Six-Electron Photoreduction of Hydrogen Cyanide to Methane by the Molybdenumâ€“Iron Protein. Journal of the American Chemical Society, 2012, 134, 8416-8419.	13.7	55
31	Stability and Folding Kinetics of Structurally Characterized Cytochrome c-b562,. Biochemistry, 2006, 45, 10504-10511.	2.5	54
32	Structural Characterization of a Microperoxidase Inside a Metalâ€Directed Protein Cage. Angewandte Chemie - International Edition, 2010, 49, 7014-7018.	13.8	51
33	Engineering the entropy-driven free-energy landscape of a dynamic nanoporous protein assembly. Nature Chemistry, 2018, 10, 732-739.	13.6	51
34	Structural Evidence for Asymmetrical Nucleotide Interactions in Nitrogenase. Journal of the American Chemical Society, 2015, 137, 146-149.	13.7	44
35	Tyrosine-Coordinated P-Cluster in <i>G. diazotrophicus</i> Nitrogenase: Evidence for the Importance of O-Based Ligands in Conformationally Gated Electron Transfer. Journal of the American Chemical Society, 2016, 138, 10124-10127.	13.7	40
36	De Novo Design of an Allosteric Metalloprotein Assembly with Strained Disulfide Bonds. Journal of the American Chemical Society, 2016, 138, 13163-13166.	13.7	40

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37	Importance of Scaffold Flexibility/Rigidity in the Design and Directed Evolution of Artificial Metallo-Î²-lactamases. Journal of the American Chemical Society, 2017, 139, 16772-16779.	13.7	39
38	Expanding the utility of proteins as platforms for coordination chemistry. Coordination Chemistry Reviews, 2011, 255, 790-803.	18.8	36
39	In Vitro and Cellular Self-Assembly of a Zn-Binding Protein Cryptand via Templated Disulfide Bonds. Journal of the American Chemical Society, 2013, 135, 12013-12022.	13.7	35
40	Porous protein frameworks with unsaturated metal centers in sterically encumbered coordination sites. Chemical Communications, 2011, 47, 313-315.	4.1	33
41	Overcoming universal restrictions on metal selectivity by protein design. Nature, 2022, 603, 522-527.	27.8	32
42	Evidence for Functionally Relevant Encounter Complexes in Nitrogenase Catalysis. Journal of the American Chemical Society, 2015, 137, 12704-12712.	13.7	31
43	Assembly of a patchy protein into variable 2D lattices via tunable multiscale interactions. Nature Communications, 2020, 11, 3770.	12.8	31
44	Tunable and Cooperative Thermomechanical Properties of Proteinâ€“Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2020, 142, 17265-17270.	13.7	31
45	Redox-Dependent Metastability of the Nitrogenase P-Cluster. Journal of the American Chemical Society, 2019, 141, 10091-10098.	13.7	30
46	Controlled Protein Dimerization through Hybrid Coordination Motifs. Inorganic Chemistry, 2010, 49, 4362-4369.	4.0	27
47	Metalâ€Templated Design of Chemically Switchable Protein Assemblies with Highâ€Affinity Coordination Sites. Angewandte Chemie - International Edition, 2020, 59, 21940-21944.	13.8	24
48	Functional, metal-based crosslinkers for Î±-helix induction in short peptides. Chemical Science, 2013, 4, 3740.	7.4	22
49	Self-Assembly of a Designed Nucleoprotein Architecture through Multimodal Interactions. ACS Central Science, 2018, 4, 1578-1586.	11.3	22
50	Modular and Versatile Hybrid Coordination Motifs on Î±-Helical Protein Surfaces. Inorganic Chemistry, 2010, 49, 7106-7115.	4.0	21
51	Determining the Structural and Energetic Basis of Allostery in a De Novo Designed Metalloprotein Assembly. Journal of the American Chemical Society, 2018, 140, 10043-10053.	13.7	20
52	Templated Construction of a Zn-Selective Protein Dimerization Motif. Inorganic Chemistry, 2011, 50, 6323-6329.	4.0	19
53	Lightâ€Driven Uncoupling of Nitrogenase Catalysis from ATP Hydrolysis. ChemCatChem, 2011, 3, 1549-1555.	3.7	14
54	Design of metal-mediated protein assemblies via hydroxamic acid functionalities. Nature Protocols, 2021, 16, 3264-3297.	12.0	14

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55	Dynamic, Polymer-Integrated Crystals for Efficient, Reversible Protein Encapsulation. Journal of the American Chemical Society, 2022, 144, 10139-10144.	13.7	14
56	Repurposing proteins for new bioinorganic functions. Essays in Biochemistry, 2017, 61, 245-258.	4.7	12
57	Inside polyMOFs: layered structures in polymer-based metalâ€“organic frameworks. Chemical Science, 2020, 11, 10523-10528.	7.4	12
58	Metal-hydrogen-pi-bonded organic frameworks. Dalton Transactions, 2022, 51, 1927-1935.	3.3	12
59	Ion-dependent proteinâ€“surface interactions from intrinsic solvent response. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	10
60	Tunable helicity, stability and DNA-binding properties of short peptides with hybrid metal coordination motifs. Chemical Science, 2016, 7, 5453-5461.	7.4	9
61	Anisotropic Dynamics and Mechanics of Macromolecular Crystals Containing Lattice-Patterned Polymer Networks. Journal of the American Chemical Society, 2020, 142, 19402-19410.	13.7	8
62	Enzyme-Directed Functionalization of Designed, Two-Dimensional Protein Lattices. Biochemistry, 2021, 60, 1050-1062.	2.5	8
63	Metalâ€Templated Design of Chemically Switchable Protein Assemblies with Highâ€Affinity Coordination Sites. Angewandte Chemie, 2020, 132, 22124-22128.	2.0	4
64	Determination of nucleoside triphosphatase activities from measurement of true inorganic phosphate in the presence of labile phosphate compounds. Analytical Biochemistry, 2017, 520, 62-67.	2.4	3