

Douglas S Clark

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7906766/publications.pdf>

Version: 2024-02-01

63
papers

2,195
citations

236925

25
h-index

233421

45
g-index

66
all docs

66
docs citations

66
times ranked

2710
citing authors

#	ARTICLE	IF	CITATIONS
1	Progress, Challenges, and Opportunities with Artificial Metalloenzymes in Biosynthesis. <i>Biochemistry</i> , 2023, 62, 221-228.	2.5	15
2	Directed Evolution of Artificial Metalloenzymes in Whole Cells. <i>Angewandte Chemie</i> , 2022, 134, e202110519.	2.0	2
3	Directed Evolution of Artificial Metalloenzymes in Whole Cells. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	14
4	Assembly and Evolution of Artificial Metalloenzymes within <i>E. coli</i> Nissle 1917 for Enantioselective and Site-Selective Functionalization of C-H and C-C Bonds. <i>Journal of the American Chemical Society</i> , 2022, 144, 883-890.	13.7	16
5	Systems-informed genome mining for electroautotrophic microbial production. <i>Bioelectrochemistry</i> , 2022, 145, 108054.	4.6	7
6	A Comprehensive Modeling Analysis of Formate-Mediated Microbial Electrosynthesis**. <i>ChemSusChem</i> , 2021, 14, 344-355.	6.8	24
7	Filamentous chaperone protein-based hydrogel stabilizes enzymes against thermal inactivation. <i>Chemical Communications</i> , 2021, 57, 5511-5513.	4.1	3
8	Abiotic reduction of ketones with silanes catalysed by carbonic anhydrase through an enzymatic zinc hydride. <i>Nature Chemistry</i> , 2021, 13, 312-318.	13.6	30
9	High-Throughput Discovery of Targeted, Minimally Complex Peptide Surfaces for Human Pluripotent Stem Cell Culture. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 1344-1360.	5.2	4
10	Envisioning the "Air Economy" Powered by Reticular Chemistry and Sunlight for Clean Air, Clean Energy, and Clean Water. <i>Molecular Frontiers Journal</i> , 2021, 05, 30-37.	1.1	5
11	Unnatural biosynthesis by an engineered microorganism with heterologously expressed natural enzymes and an artificial metalloenzyme. <i>Nature Chemistry</i> , 2021, 13, 1186-1191.	13.6	56
12	High-throughput 3D screening for differentiation of hPSC-derived cell therapy candidates. <i>Science Advances</i> , 2020, 6, eaaz1457.	10.3	8
13	Design of Tunable Protein Interfaces Controlled by Post-Translational Modifications. <i>ACS Synthetic Biology</i> , 2020, 9, 2132-2143.	3.8	8
14	Functional Applications of Nucleic Acid-Protein Hybrid Nanostructures. <i>Trends in Biotechnology</i> , 2020, 38, 976-989.	9.3	22
15	CRISPR/Cas-directed programmable assembly of multi-enzyme complexes. <i>Chemical Communications</i> , 2020, 56, 4950-4953.	4.1	17
16	The importance and future of biochemical engineering. <i>Biotechnology and Bioengineering</i> , 2020, 117, 2305-2318.	3.3	13
17	Structural Determination of a Filamentous Chaperone to Fabricate Electronically Conductive Metalloprotein Nanowires. <i>ACS Nano</i> , 2020, 14, 6559-6569.	14.6	20
18	Production of Multicomponent Protein Templates for the Positioning and Stabilization of Enzymes. <i>Methods in Molecular Biology</i> , 2020, 2073, 101-115.	0.9	0

#	ARTICLE	IF	CITATIONS
19	High-throughput combinatorial screening reveals interactions between signaling molecules that regulate adult neural stem cell fate. <i>Biotechnology and Bioengineering</i> , 2019, 116, 193-205.	3.3	12
20	Site-Selective Functionalization of (sp ³)C-H Bonds Catalyzed by Artificial Metalloenzymes Containing an Iridium-Porphyrin Cofactor. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 13954-13960.	13.8	62
21	Site-Selective Functionalization of (sp ³)C-H Bonds Catalyzed by Artificial Metalloenzymes Containing an Iridium-Porphyrin Cofactor. <i>Angewandte Chemie</i> , 2019, 131, 14092-14098.	2.0	5
22	Gene Editing to Generate Versatile Human Pluripotent Stem Cell Reporter Lines for Analysis of Differentiation and Lineage Tracing. <i>Stem Cells</i> , 2019, 37, 1556-1566.	3.2	13
23	Engineering bioorthogonal protein-polymer hybrid hydrogel as a functional protein immobilization platform. <i>Chemical Communications</i> , 2019, 55, 806-809.	4.1	38
24	Enzyme Immobilization: Enhanced Enzyme Activity through Scaffolding on Customizable Self-Assembling Protein Filaments (<i>Small</i> 20/2019). <i>Small</i> , 2019, 15, 1970104.	10.0	1
25	Enhanced Enzyme Activity through Scaffolding on Customizable Self-Assembling Protein Filaments. <i>Small</i> , 2019, 15, e1805558.	10.0	40
26	Shaping the Future of Protein Engineering. <i>Biochemistry</i> , 2019, 58, 1019-1021.	2.5	3
27	High-throughput identification of factors promoting neuronal differentiation of human neural progenitor cells in microscale 3D cell culture. <i>Biotechnology and Bioengineering</i> , 2019, 116, 168-180.	3.3	25
28	Prefoldins in Archaea. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1106, 11-23.	1.6	7
29	Assembly of Multicomponent Protein Filaments Using Engineered Subunit Interfaces. <i>ACS Synthetic Biology</i> , 2018, 7, 2447-2456.	3.8	15
30	A tribute to Professor Jay Bailey: A pioneer in biochemical engineering. <i>AIChE Journal</i> , 2018, 64, 4179-4181.	3.6	1
31	Controlled Assembly of the Filamentous Chaperone Gamma-Prefoldin into Defined Nanostructures. <i>Methods in Molecular Biology</i> , 2018, 1798, 293-306.	0.9	2
32	Chemoselective, Enzymatic C-H Bond Amination Catalyzed by a Cytochrome P450 Containing an Ir(Me)-PIX Cofactor. <i>Journal of the American Chemical Society</i> , 2017, 139, 1750-1753.	13.7	147
33	Beyond Iron: Iridium-Containing P450 Enzymes for Selective Cyclopropanations of Structurally Diverse Alkenes. <i>ACS Central Science</i> , 2017, 3, 302-308.	11.3	85
34	Engineering Cel7A carbohydrate binding module and linker for reduced lignin inhibition. <i>Biotechnology and Bioengineering</i> , 2016, 113, 1369-1374.	3.3	42
35	Simultaneous selection and counter-selection for the directed evolution of proteases in <i>E. coli</i> using a cytoplasmic anchoring strategy. <i>Biotechnology and Bioengineering</i> , 2016, 113, 1187-1193.	3.3	17
36	Geometrical assembly of ultrastable protein templates for nanomaterials. <i>Nature Communications</i> , 2016, 7, 11771.	12.8	40

#	ARTICLE	IF	CITATIONS
37	The Role of Interfacial Reactions in Determining Plasmaâ€“Liquid Chemistry. Plasma Chemistry and Plasma Processing, 2016, 36, 1393-1415.	2.4	64
38	High-Throughput Toxicity and Phenotypic Screening of 3D Human Neural Progenitor Cell Cultures on a Microarray Chip Platform. Stem Cell Reports, 2016, 7, 970-982.	4.8	55
39	Protein Calligraphy: A New Concept Begins To Take Shape. ACS Central Science, 2016, 2, 438-444.	11.3	21
40	Abiological catalysis by artificial haem proteins containing noble metals in place of iron. Nature, 2016, 534, 534-537.	27.8	360
41	Engineering ionic liquid-tolerant cellulases for biofuels production. Protein Engineering, Design and Selection, 2016, 29, 117-122.	2.1	29
42	Evaluating endoglucanase Cel7Bâ€™s lignin interaction mechanisms and kinetics using quartz crystal microgravimetry. Biotechnology and Bioengineering, 2015, 112, 2256-2266.	3.3	23
43	Oligomeric assembly is required for chaperone activity of the filamentous $\hat{3}$ â€™prefoldin. FEBS Journal, 2015, 282, 2985-2997.	4.7	27
44	Klaus Mosbach tribute. Biotechnology and Bioengineering, 2015, 112, 645-647.	3.3	0
45	Production of an acetone-butanol-ethanol mixture from Clostridium acetobutylicum and its conversion to high-value biofuels. Nature Protocols, 2015, 10, 528-537.	12.0	77
46	Generation, Characterization, and Tunable Reactivity of Organometallic Fragments Bound to a Protein Ligand. Journal of the American Chemical Society, 2015, 137, 8261-8268.	13.7	20
47	Structural Insights into the Affinity of Cel7A Carbohydrate-binding Module for Lignin. Journal of Biological Chemistry, 2015, 290, 22818-22826.	3.4	62
48	High-throughput and combinatorial gene expression on a chip for metabolism-induced toxicology screening. Nature Communications, 2014, 5, 3739.	12.8	75
49	Engineering Clostridium acetobutylicum for production of kerosene and diesel blendstock precursors. Metabolic Engineering, 2014, 25, 124-130.	7.0	31
50	Antimicrobial Synergy Between Ambientâ€™G as Plasma and <sc>UVA</sc> Treatment of Aqueous Solution. Plasma Processes and Polymers, 2013, 10, 1051-1060.	3.0	23
51	Effect of Discharge Parameters and Surface Characteristics on Ambientâ€™Gas Plasma Disinfection. Plasma Processes and Polymers, 2013, 10, 69-76.	3.0	45
52	Engineering protein filaments with enhanced thermostability for nanomaterials. Biotechnology Journal, 2013, 8, 228-236.	3.5	19
53	Combination ambient gas plasma treatment and chemotherapy. , 2013, , .		0
54	PPPS-2013: Chemical and antimicrobial effects of DC corona with water electrospray compared with surface microdischarge. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
55	Escherichia coli for biofuel production: bridging the gap from promise to practice. Trends in Biotechnology, 2012, 30, 538-545.	9.3	86
56	Delignification of Miscanthus by Extraction. Separation Science and Technology, 2012, 47, 370-376.	2.5	9
57	Green fluorescent protein as a screen for enzymatic activity in ionic liquid aqueous systems for in situ hydrolysis of lignocellulose. Green Chemistry, 2011, 13, 3107-3110.	9.0	28
58	Rational shape engineering of the filamentous protein \hat{I}^3 prefoldin through incremental gene truncation. Biopolymers, 2009, 91, 496-503.	2.4	14
59	Biotemplated Metal Nanowires Using Hyperthermophilic Protein Filaments. Small, 2009, 5, 2038-2042.	10.0	32
60	A filamentous molecular chaperone of the prefoldin family from the deep-sea hyperthermophile Methanocaldococcus jannaschii. Protein Science, 2007, 16, 626-634.	7.6	36
61	Transcriptional profiling of the hyperthermophilic methanarchaeon Methanococcus jannaschii in response to lethal heat and non-lethal cold shock. Environmental Microbiology, 2005, 7, 789-797.	3.8	56
62	Structure and Function of Subtilisin BPN \hat{I} Solubilized in Organic Solvents. Journal of the American Chemical Society, 1997, 119, 70-76.	13.7	119
63	Transition state stabilization of subtilisins in organic media. Biotechnology and Bioengineering, 1994, 43, 515-520.	3.3	62