

Kersten S Rabe

List of Publications by Year in descending order

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Version: 2024-02-01

65
papers

1,962
citations

257101

24
h-index

264894

42
g-index

81
all docs

81
docs citations

81
times ranked

2377
citing authors

#	ARTICLE	IF	CITATIONS
1	Orthogonal Protein Decoration of DNA Origami. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 9378-9383.	7.2	259
2	Cascades in Compartments: En Route to Machine-Assisted Biotechnology. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13574-13589.	7.2	145
3	Isobutanol production at elevated temperatures in thermophilic <i>Geobacillus thermoglucosidasius</i> . <i>Metabolic Engineering</i> , 2014, 24, 1-8.	3.6	107
4	Machine Learning Applied to Predicting Microorganism Growth Temperatures and Enzyme Catalytic Optima. <i>ACS Synthetic Biology</i> , 2019, 8, 1411-1420.	1.9	100
5	High-Throughput Screening for Terpene Synthase Cyclization Activity and Directed Evolution of a Terpene Synthase. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 5571-5574.	7.2	81
6	Self-Immobilizing Fusion Enzymes for Compartmentalized Biocatalysis. <i>ACS Catalysis</i> , 2017, 7, 7866-7872.	5.5	79
7	Self-Assembling All-Enzyme Hydrogels for Flow Biocatalysis. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 17028-17032.	7.2	76
8	Multifunctional Silica Nanoparticles for Covalent Immobilization of Highly Sensitive Proteins. <i>Advanced Materials</i> , 2015, 27, 7945-7950.	11.1	64
9	Applications of Protein Engineering and Directed Evolution in Plant Research. <i>Plant Physiology</i> , 2019, 179, 907-917.	2.3	53
10	Characterization of the Peroxidase Activity of CYP119, a Thermostable P450 From <i>Sulfolobus acidocaldarius</i> . <i>ChemBioChem</i> , 2008, 9, 420-425.	1.3	52
11	On-Demand Production of Flow-Reactor Cartridges by 3D Printing of Thermostable Enzymes. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 5539-5543.	7.2	49
12	Orthogonal Surface Tags for Whole-Cell Biocatalysis. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 2183-2186.	7.2	45
13	Engineering and assaying of cytochrome P450 biocatalysts. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 392, 1059-1073.	1.9	42
14	A Rationally Designed Connector for Assembly of Protein-Functionalized DNA Nanostructures. <i>ChemBioChem</i> , 2016, 17, 1102-1106.	1.3	41
15	MOF-Hosted Enzymes for Continuous Flow Catalysis in Aqueous and Organic Solvents. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	39
16	The Ternary Complex of Cytochrome f and Cytochrome c: Identification of a Second Binding Site and Competition for Plastocyanin Binding. <i>ChemBioChem</i> , 2002, 3, 526.	1.3	36
17	Carbon-nanotube reinforcement of DNA-silica nanocomposites yields programmable and cell-instructive biocoatings. <i>Nature Communications</i> , 2019, 10, 5522.	5.8	34
18	3D-Printed Phenacrylate Decarboxylase Flow Reactors for the Chemoenzymatic Synthesis of 4-Hydroxystilbene. <i>Chemistry - A European Journal</i> , 2019, 25, 15998-16001.	1.7	33

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19	Valency engineering of monomeric enzymes for self-assembling biocatalytic hydrogels. <i>Chemical Science</i> , 2019, 10, 9752-9757.	3.7	33
20	Improvement in the Thermostability of a α -Amino Acid Converting α -Transaminase by Using FoldX. <i>ChemBioChem</i> , 2018, 19, 379-387.	1.3	28
21	Kaskaden in Kompartimenten: auf dem Weg zu maschinengestützter Biotechnologie. <i>Angewandte Chemie</i> , 2017, 129, 13760-13777.	1.6	27
22	Photocatalytic Activity of Protein-Conjugated CdS Nanoparticles. <i>Small</i> , 2010, 6, 2035-2040.	5.2	26
23	A Phenolic Acid Decarboxylase-Based All-Enzyme Hydrogel for Flow Reactor Technology. <i>Micromachines</i> , 2019, 10, 795.	1.4	26
24	Self-Immobilizing Oxidoreductases for Flow Biocatalysis in Miniaturized Packed-Bed Reactors. <i>Chemical Engineering and Technology</i> , 2019, 42, 2009-2017.	0.9	24
25	Self-Immobilizing Biocatalysts Maximize Space-Time Yields in Flow Reactors. <i>Catalysts</i> , 2019, 9, 164.	1.6	23
26	Imine Reductase Based All-Enzyme Hydrogel with Intrinsic Cofactor Regeneration for Flow Biocatalysis. <i>Micromachines</i> , 2019, 10, 783.	1.4	21
27	Surface Display of Complex Enzymes by <i>in Situ</i> SpyCatcher-SpyTag Interaction. <i>ChemBioChem</i> , 2020, 21, 2126-2131.	1.3	21
28	Microfluidic Chips for Life Sciences – A Comparison of Low Entry Manufacturing Technologies. <i>Small</i> , 2019, 15, e1901956.	5.2	20
29	Bottom-Up Assembly of DNA-Silica Nanocomposites into Micrometer-Sized Hollow Spheres. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 17269-17272.	7.2	20
30	The esterase from <i>Alicyclobacillus acidocaldarius</i> as a reporter enzyme and affinity tag for protein biosynthesis. <i>FEBS Letters</i> , 2005, 579, 2082-2086.	1.3	18
31	Self-Assembling All-Enzyme Hydrogels for Flow Biocatalysis. <i>Angewandte Chemie</i> , 2018, 130, 17274-17278.	1.6	18
32	Machine-assisted cultivation and analysis of biofilms. <i>Scientific Reports</i> , 2019, 9, 8933.	1.6	18
33	Solid-Phase Synthesis and Purification of Protein-DNA Origami Nanostructures. <i>Chemistry - A European Journal</i> , 2019, 25, 3483-3488.	1.7	15
34	Peroxidase activity of bacterial cytochrome P450 enzymes: Modulation by fatty acids and organic solvents. <i>Biotechnology Journal</i> , 2010, 5, 891-899.	1.8	14
35	Evaluation of a Microreactor for Flow Biocatalysis by Combined Theory and Experiment. <i>ChemCatChem</i> , 2020, 12, 2452-2460.	1.8	14
36	C-Terminal Modifications of a Protein by UAG-Encoded Incorporation of Puromycin during <i>in vitro</i> Protein Synthesis in the Absence of Release Factor 1. <i>ChemBioChem</i> , 2006, 7, 330-336.	1.3	13

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37	Screening for Cytochrome P450 Reactivity by Harnessing Catalase as Reporter Enzyme. <i>ChemBioChem</i> , 2009, 10, 751-757.	1.3	13
38	Improved selectivity of an engineered multi-product terpene synthase. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 4013-4020.	1.5	13
39	Oriented immobilization of a delicate glucose-sensing protein on silica nanoparticles. <i>Biomaterials</i> , 2019, 190-191, 76-85.	5.7	12
40	An Orthogonal Covalent Connector System for the Efficient Assembly of Enzyme Cascades on DNA Nanostructures. <i>Small</i> , 2021, 17, e2105095.	5.2	12
41	Microfluidic Evolutionâ€œOnâ€œChip Reveals New Mutations that Cause Antibiotic Resistance. <i>Small</i> , 2021, 17, e2007166.	5.2	11
42	A Modular System for the Rapid Comparison of Different Membrane Anchors for Surface Display on <i>Escherichia coli</i> . <i>ChemBioChem</i> , 2022, 23, .	1.3	10
43	Orthogonale OberflÃchenmarkierungen fÃ¼r die Ganzzellkatalyse. <i>Angewandte Chemie</i> , 2017, 129, 2215-2219.	1.6	8
44	Modelingâ€œAssisted Design of Thermostable Benzaldehyde Lyases from <i>Rhodococcus erythropolis</i> for Continuous Production of Î±-Hydroxy Ketones. <i>ChemBioChem</i> , 2022, 23, .	1.3	8
45	A Magnetosome-Based Platform for Flow Biocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 22138-22150.	4.0	8
46	DNAâ€œDirected Assembly of a Cellâ€œResponsive Biohybrid Interface for Cargo Release. <i>Small Methods</i> , 2021, 5, e2001049.	4.6	7
47	Gene jelly. <i>Nature Materials</i> , 2009, 8, 370-372.	13.3	6
48	Selective Covalent Conjugation of Phosphorothioate DNA Oligonucleotides with Streptavidin. <i>Molecules</i> , 2011, 16, 6916-6926.	1.7	6
49	Herstellung direkt nutzbarer Durchflussreaktorkartuschen durch 3D-Druck von thermostabilen Enzymen. <i>Angewandte Chemie</i> , 2018, 130, 5638-5642.	1.6	6
50	Chemoenzymatic Synthesis of O-Containing Heterocycles from Î±-Diazo Esters. <i>ChemCatChem</i> , 2019, 11, 5519-5523.	1.8	6
51	Microfluidic cultivation and analysis of productive biofilms. <i>Biotechnology and Bioengineering</i> , 2021, 118, 3860-3870.	1.7	6
52	Direct coupling analysis improves the identification of beneficial amino acid mutations for the functional thermostabilization of a delicate decarboxylase. <i>Biological Chemistry</i> , 2019, 400, 1519-1527.	1.2	5
53	Toward Reproducible Enzyme Modeling with Isothermal Titration Calorimetry. <i>ACS Catalysis</i> , 2021, 11, 10695-10704.	5.5	5
54	Formulation of DNA Nanocomposites: Towards Functional Materials for Protein Expression. <i>Polymers</i> , 2021, 13, 2395.	2.0	4

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55	Comparison of Storage Methods for Microfluidically Produced Water-in-Oil Droplets. <i>Chemical Engineering and Technology</i> , 2019, 42, 2028-2034.	0.9	3
56	MOF-hosted enzymes for continuous flow catalysis in aqueous and organic solvents. <i>Angewandte Chemie</i> , 0, , .	1.6	3
57	Titelbild: Self-Assembling All-Enzyme Hydrogels for Flow Biocatalysis (<i>Angew. Chem.</i> 52/2018). <i>Angewandte Chemie</i> , 2018, 130, 17153-17153.	1.6	2
58	High-Throughput Identification of Combinatorial Ligands for DNA Delivery in Cell Culture. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	1
59	Screening for Cytochrome P450 Reactivity with a Reporter Enzyme. <i>Methods in Molecular Biology</i> , 2013, 987, 149-156.	0.4	1
60	Innen-¼ktitelbild: High-Throughput Screening for Terpene-Synthase-Cyclization Activity and Directed Evolution of a Terpene Synthase (<i>Angew. Chem.</i> 21/2013). <i>Angewandte Chemie</i> , 2013, 125, 5759-5759.	1.6	1
61	Bottom-Up Assembly of DNA-Silica Nanocomposites into Micrometer-Sized Hollow Spheres. <i>Angewandte Chemie</i> , 2019, 131, 17429-17432.	1.6	1
62	Semisynthetic DNA-protein conjugates for fabrication of nucleic acid based nanostructures. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
63	Hybride aus DNA, Proteinen und Kolloiden. <i>Nachrichten Aus Der Chemie</i> , 2011, 59, 112-116.	0.0	0
64	Neue Perspektiven für den wissenschaftlichen Nachwuchs in Deutschland. <i>BioSpektrum</i> , 2016, 22, 3-3.	0.0	0
65	Solid-Phase Synthesis and Purification of Protein-DNA Origami Nanostructures. <i>Chemistry - A European Journal</i> , 2019, 25, 3403-3403.	1.7	0