Nils KrÃ¶ger

List of Publications by Year
in descending order

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39 papers	5,338 citations	236612 25 h-index	360668 35 g-index
43 all docs	43 docs citations	43 times ranked	5272 citing authors

#	Article	IF	Citations
1	Shedding light on silica biomineralization by comparative analysis of the silicaâ€associated proteomes from three diatom species. Plant Journal, 2022, 110, 1700-1716.	2.8	12
2	Biomolecules Involved in Frustule Biogenesis and Function. , 2022, , 313-343.		5
3	Structure and Morphogenesis of the Frustule. , 2022, , 287-312.		4
4	Computational analysis of the effects of nitrogen source and sin1 knockout on biosilica morphology in the model diatom Thalassiosira pseudonana. Discover Materials, 2021, 1, 1.	1.0	3
5	The role of organic matrices in biomineralization. Discover Materials, 2021, 1, 1.	1.0	1
6	An intimate view into the silica deposition vesicles of diatoms. BMC Materials, 2020, 2, .	6.8	25
7	Genetically Programmed Regioselective Immobilization of Enzymes in Biosilica Microparticles. Advanced Functional Materials, 2020, 30, 2000442.	7.8	22
8	Control of biosilica morphology and mechanical performance by the conserved diatom gene Silicanin-1. Communications Biology, 2019, 2, 245.	2.0	51
9	Influence of silica architecture on the catalytic activity of immobilized glucose oxidase. Bioinspired, Biomimetic and Nanobiomaterials, 2019, 8, 72-80.	0.7	11
10	Reconstituting the formation of hierarchically porous silica patterns using diatom biomolecules. Journal of Structural Biology, 2018, 204, 64-74.	1.3	34
11	Silicanin-1 is a conserved diatom membrane protein involved in silica biomineralization. BMC Biology, 2017, 15, 65.	1.7	61
12	PSCD Domains of Pleuralin-1 from the Diatom Cylindrotheca fusiformis : NMR Structures and Interactions with Other Biosilica-Associated Proteins. Structure, 2016, 24, 1178-1191.	1.6	14
13	Establishing super-resolution imaging for proteins in diatom biosilica. Scientific Reports, 2016, 6, 36824.	1.6	23
14	Biochemical Composition and Assembly of Biosilica-associated Insoluble Organic Matrices from the Diatom Thalassiosira pseudonana. Journal of Biological Chemistry, 2016, 291, 4982-4997.	1.6	62
15	Compartmentalisation of enzymes for cascade reactions through biomimetic layer-by-layer mineralization. Journal of Materials Chemistry B, 2015, 3, 5232-5240.	2.9	31
16	Targeted drug delivery using genetically engineered diatom biosilica. Nature Communications, 2015, 6, 8791.	5.8	226
17	Complexâ€shaped microbial biominerals for nanotechnology. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2014, 6, 615-627.	3.3	33
18	A Tyrosine-Rich Cell Surface Protein in the Diatom Amphora coffeaeformis Identified through Transcriptome Analysis and Genetic Transformation. PLoS ONE, 2014, 9, e110369.	1.1	29

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19	Pentalysine Clusters Mediate Silica Targeting of Silaffins in Thalassiosira pseudonana. Journal of Biological Chemistry, 2013, 288, 20100-20109.	1.6	57
20	Rapid Flowâ€Through Biocatalysis with High Surface Area, Enzymeâ€Loaded Carbon and Goldâ€Bearing Diatom Frustule Replicas. Advanced Functional Materials, 2013, 23, 4611-4620.	7.8	32
21	Biocatalytic Nanoscale Coatings Through Biomimetic Layer-by-Layer Mineralization. Advanced Functional Materials, 2011, 21, 4243-4251.	7.8	61
22	Nanopatterned protein microrings from a diatom that direct silica morphogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3175-3180.	3.3	175
23	From Diatom Biomolecules to Bioinspired Syntheses of Silica- and Titania-Based Materials. MRS Bulletin, 2010, 35, 122-126.	1.7	55
24	Characterization of an Endoplasmic Reticulum-associated Silaffin Kinase from the Diatom Thalassiosira pseudonana. Journal of Biological Chemistry, 2010, 285, 1166-1176.	1.6	19
25	Characterization of a novel kinase involved in biomineralization of diatom silica. FASEB Journal, 2010, 24, lb186.	0.2	0
26	The Molecular Basis of Nacre Formation. Science, 2009, 325, 1351-1352.	6.0	39
27	Bioenabled Surfaceâ€Mediated Growth of Titania Nanoparticles. Advanced Materials, 2008, 20, 3274-3279.	11.1	64
28	Diatomsâ€”From Cell Wall Biogenesis to Nanotechnology. Annual Review of Genetics, 2008, 42, 83-107.	3.2	376
29	Identification of peptides capable of inducing the formation of titania but not silica via a subtractive bacteriophage display approach. Journal of Materials Chemistry, 2008, 18, 3871.	6.7	35
30	Silica Immobilization of an Enzyme through Genetic Engineering of the DiatomThalassiosira pseudonana. Angewandte Chemie - International Edition, 2007, 46, 1843-1846.	7.2	100
31	Prescribing diatom morphology: toward genetic engineering of biological nanomaterials. Current Opinion in Chemical Biology, 2007, 11, 662-669.	2.8	113
32	MOLECULAR GENETIC MANIPULATION OF THE DIATOM THALASSIOSIRA PSEUDONANA (BACILLARIOPHYCEAE). Journal of Phycology, 2006, 42, 1059-1065.	1.0	240
33	Bioenabled Synthesis of Rutile (TiO2) at Ambient Temperature and Neutral pH. Angewandte Chemie - International Edition, 2006, 45, 7239-7243.	7.2	116
34	Biosilica Nanofabrication in Diatoms: The Structures and Properties of Regulatory Silaffins. Materials Research Society Symposia Proceedings, 2005, 873, 1.	0.1	0
35	Silica Morphogenesis by Alternative Processing of Silaffins in the Diatom Thalassiosira pseudonana. Journal of Biological Chemistry, 2004, 279, 42993-42999.	1.6	219
36	The Genome of the Diatom Thalassiosira Pseudonana: Ecology, Evolution, and Metabolism. Science, 2004, 306, 79-86.	6.0	1,862

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37	Biosilica formation in diatoms: Characterization of native silaffin-2 and its role in silica morphogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12075-12080.	3.3	308
38	Self-Assembly of Highly Phosphorylated Silaffins and Their Function in Biosilica Morphogenesis. Science, 2002, 298, 584-586.	6.0	719
39	Pleuralins are Involved in Theca Differentiation in the Diatom Cylindrotheca fusiformis. Protist, 2000, 151, 263-273.	0.6	100