

Nils KrÄjger

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	The Genome of the Diatom <i>Thalassiosira Pseudonana</i> : Ecology, Evolution, and Metabolism. <i>Science</i> , 2004, 306, 79-86.	6.0	1,862
2	Self-Assembly of Highly Phosphorylated Silaffins and Their Function in Biosilica Morphogenesis. <i>Science</i> , 2002, 298, 584-586.	6.0	719
3	Diatoms—From Cell Wall Biogenesis to Nanotechnology. <i>Annual Review of Genetics</i> , 2008, 42, 83-107.	3.2	376
4	Biosilica formation in diatoms: Characterization of native silaffin-2 and its role in silica morphogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 12075-12080.	3.3	308
5	MOLECULAR GENETIC MANIPULATION OF THE DIATOM THALASSIOSIRA PSEUDONANA (BACILLARIOPHYCEAE). <i>Journal of Phycology</i> , 2006, 42, 1059-1065.	1.0	240
6	Targeted drug delivery using genetically engineered diatom biosilica. <i>Nature Communications</i> , 2015, 6, 8791.	5.8	226
7	Silica Morphogenesis by Alternative Processing of Silaffins in the Diatom <i>Thalassiosira pseudonana</i> . <i>Journal of Biological Chemistry</i> , 2004, 279, 42993-42999.	1.6	219
8	Nanopatterned protein microrings from a diatom that direct silica morphogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 3175-3180.	3.3	175
9	Bioenabled Synthesis of Rutile (TiO ₂) at Ambient Temperature and Neutral pH. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 7239-7243.	7.2	116
10	Prescribing diatom morphology: toward genetic engineering of biological nanomaterials. <i>Current Opinion in Chemical Biology</i> , 2007, 11, 662-669.	2.8	113
11	Pleuralins are Involved in Theca Differentiation in the Diatom <i>Cylindrotheca fusiformis</i> . <i>Protist</i> , 2000, 151, 263-273.	0.6	100
12	Silica Immobilization of an Enzyme through Genetic Engineering of the Diatom <i>Thalassiosira pseudonana</i> . <i>Angewandte Chemie - International Edition</i> , 2007, 46, 1843-1846.	7.2	100
13	Bioenabled Surface-Mediated Growth of Titania Nanoparticles. <i>Advanced Materials</i> , 2008, 20, 3274-3279.	11.1	64
14	Biochemical Composition and Assembly of Biosilica-associated Insoluble Organic Matrices from the Diatom <i>Thalassiosira pseudonana</i> . <i>Journal of Biological Chemistry</i> , 2016, 291, 4982-4997.	1.6	62
15	Biocatalytic Nanoscale Coatings Through Biomimetic Layer-by-Layer Mineralization. <i>Advanced Functional Materials</i> , 2011, 21, 4243-4251.	7.8	61
16	Silicanin-1 is a conserved diatom membrane protein involved in silica biomineralization. <i>BMC Biology</i> , 2017, 15, 65.	1.7	61
17	Pentalysine Clusters Mediate Silica Targeting of Silaffins in <i>Thalassiosira pseudonana</i> . <i>Journal of Biological Chemistry</i> , 2013, 288, 20100-20109.	1.6	57
18	From Diatom Biomolecules to Bioinspired Syntheses of Silica- and Titania-Based Materials. <i>MRS Bulletin</i> , 2010, 35, 122-126.	1.7	55

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19	Control of biosilica morphology and mechanical performance by the conserved diatom gene Silicanin-1. <i>Communications Biology</i> , 2019, 2, 245.	2.0	51
20	The Molecular Basis of Nacre Formation. <i>Science</i> , 2009, 325, 1351-1352.	6.0	39
21	Identification of peptides capable of inducing the formation of titania but not silica via a subtractive bacteriophage display approach. <i>Journal of Materials Chemistry</i> , 2008, 18, 3871.	6.7	35
22	Reconstituting the formation of hierarchically porous silica patterns using diatom biomolecules. <i>Journal of Structural Biology</i> , 2018, 204, 64-74.	1.3	34
23	Complex-shaped microbial biominerals for nanotechnology. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2014, 6, 615-627.	3.3	33
24	Rapid Flow-through Biocatalysis with High Surface Area, Enzyme-loaded Carbon and Gold-bearing Diatom Frustule Replicas. <i>Advanced Functional Materials</i> , 2013, 23, 4611-4620.	7.8	32
25	Compartmentalisation of enzymes for cascade reactions through biomimetic layer-by-layer mineralization. <i>Journal of Materials Chemistry B</i> , 2015, 3, 5232-5240.	2.9	31
26	A Tyrosine-Rich Cell Surface Protein in the Diatom <i>Amphora coffeaeformis</i> Identified through Transcriptome Analysis and Genetic Transformation. <i>PLoS ONE</i> , 2014, 9, e110369.	1.1	29
27	An intimate view into the silica deposition vesicles of diatoms. <i>BMC Materials</i> , 2020, 2, .	6.8	25
28	Establishing super-resolution imaging for proteins in diatom biosilica. <i>Scientific Reports</i> , 2016, 6, 36824.	1.6	23
29	Genetically Programmed Regioselective Immobilization of Enzymes in Biosilica Microparticles. <i>Advanced Functional Materials</i> , 2020, 30, 2000442.	7.8	22
30	Characterization of an Endoplasmic Reticulum-associated Silaffin Kinase from the Diatom <i>Thalassiosira pseudonana</i> . <i>Journal of Biological Chemistry</i> , 2010, 285, 1166-1176.	1.6	19
31	PSCD Domains of Pleuralin-1 from the Diatom <i>Cylindrotheca fusiformis</i> : NMR Structures and Interactions with Other Biosilica-Associated Proteins. <i>Structure</i> , 2016, 24, 1178-1191.	1.6	14
32	Shedding light on silica biomineralization by comparative analysis of the silica-associated proteomes from three diatom species. <i>Plant Journal</i> , 2022, 110, 1700-1716.	2.8	12
33	Influence of silica architecture on the catalytic activity of immobilized glucose oxidase. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2019, 8, 72-80.	0.7	11
34	Biomolecules Involved in Frustule Biogenesis and Function. , 2022, , 313-343.		5
35	Structure and Morphogenesis of the Frustule. , 2022, , 287-312.		4
36	Computational analysis of the effects of nitrogen source and sin1 knockout on biosilica morphology in the model diatom <i>Thalassiosira pseudonana</i> . <i>Discover Materials</i> , 2021, 1, 1.	1.0	3

#	ARTICLE	IF	CITATIONS
37	The role of organic matrices in biomineralization. Discover Materials, 2021, 1, 1.	1.0	1
38	Biosilica Nanofabrication in Diatoms: The Structures and Properties of Regulatory Silaffins. Materials Research Society Symposia Proceedings, 2005, 873, 1.	0.1	0
39	Characterization of a novel kinase involved in biomineralization of diatom silica. FASEB Journal, 2010, 24, 1b186.	0.2	0