

Werner E G MÃ¼ller

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6330662/publications.pdf>

Version: 2024-02-01

235
papers

9,051
citations

34105

52
h-index

66911

78
g-index

242
all docs

242
docs citations

242
times ranked

6263
citing authors

#	ARTICLE	IF	CITATIONS
1	Expression of silicatein and collagen genes in the marine sponge <i>Suberites domuncula</i> is controlled by silicate and myotrophin. <i>FEBS Journal</i> , 2000, 267, 4878-4887.	0.2	279
2	Biofabrication of biosilica-glass by living organisms. <i>Natural Product Reports</i> , 2008, 25, 455.	10.3	191
3	Action of Bleomycin on DNA and RNA. <i>FEBS Journal</i> , 1972, 31, 518-525.	0.2	180
4	gp120 of HIV-1 induces apoptosis in rat cortical cell cultures: prevention by memantine. <i>European Journal of Pharmacology</i> , 1992, 226, 209-214.	2.6	174
5	Formation of siliceous spicules in the marine demosponge <i>Suberites domuncula</i> . <i>Cell and Tissue Research</i> , 2005, 321, 285-297.	2.9	164
6	Engineering a morphogenetically active hydrogel for bioprinting of bioartificial tissue derived from human osteoblast-like SaOS-2 cells. <i>Biomaterials</i> , 2014, 35, 8810-8819.	11.4	160
7	The role of biosilica in the osteoprotegerin/RANKL ratio in human osteoblast-like cells. <i>Biomaterials</i> , 2010, 31, 7716-7725.	11.4	138
8	Inorganic polymeric phosphate/polyphosphate as an inducer of alkaline phosphatase and a modulator of intracellular Ca ²⁺ level in osteoblasts (SaOS-2 cells) in vitro. <i>Acta Biomaterialia</i> , 2011, 7, 2661-2671.	8.3	131
9	Sponge spicules as blueprints for the biofabrication of inorganic-organic composites and biomaterials. <i>Applied Microbiology and Biotechnology</i> , 2009, 83, 397-413.	3.6	126
10	Bauplan of Urmetazoa: Basis for Genetic Complexity of Metazoa. <i>International Review of Cytology</i> , 2004, 235, 53-92.	6.2	120
11	INHIBITION OF HERPESVIRUS DNA SYNTHESIS BY 9-?-D-ARABINOFURANOSYLADENINE IN CELLULAR AND CELL-FREE SYSTEMS. <i>Annals of the New York Academy of Sciences</i> , 1977, 284, 34-48.	3.8	117
12	Kahalalide Derivatives from the Indian Sacoglossan Mollusk <i>Elysia grandifolia</i> . <i>Journal of Natural Products</i> , 2006, 69, 1547-1553.	3.0	117
13	3D printing of hybrid biomaterials for bone tissue engineering: Calcium-polyphosphate microparticles encapsulated by polycaprolactone. <i>Acta Biomaterialia</i> , 2017, 64, 377-388.	8.3	117
14	Siliceous spicules in marine demosponges (example <i>Suberites domuncula</i>). <i>Micron</i> , 2006, 37, 107-120.	2.2	115
15	Inorganic Polyphosphate in Human Osteoblast-like Cells. <i>Journal of Bone and Mineral Research</i> , 1998, 13, 803-812.	2.8	113
16	Osteogenic Potential of Biosilica on Human Osteoblast-Like (SaOS-2) Cells. <i>Calcified Tissue International</i> , 2010, 87, 513-524.	3.1	110
17	Bioactive and biodegradable silica biomaterial for bone regeneration. <i>Bone</i> , 2014, 67, 292-304.	2.9	108
18	Inorganic Polyphosphates As Storage for and Generator of Metabolic Energy in the Extracellular Matrix. <i>Chemical Reviews</i> , 2019, 119, 12337-12374.	47.7	107

#	ARTICLE	IF	CITATIONS
19	Silicate modulates the cross-talk between osteoblasts (SaOS-2) and osteoclasts (RAW 264.7 cells): Inhibition of osteoclast growth and differentiation. <i>Journal of Cellular Biochemistry</i> , 2012, 113, 3197-3206.	2.6	95
20	Poly(silicate)-metabolizing silicatein in siliceous spicules and silicasomes of demosponges comprises dual enzymatic activities (silica polymerase and silica esterase). <i>FEBS Journal</i> , 2008, 275, 362-370.	4.7	91
21	Bio-silica and bio-polyphosphate: applications in biomedicine (bone formation). <i>Current Opinion in Biotechnology</i> , 2012, 23, 570-578.	6.6	91
22	A new polyphosphate calcium material with morphogenetic activity. <i>Materials Letters</i> , 2015, 148, 163-166.	2.6	88
23	Polarity factor "Frizzled"™ in the demosponge <i>Suberites domuncula</i> : identification, expression and localization of the receptor in the epithelium/pinacoderm1. <i>FEBS Letters</i> , 2003, 554, 363-368.	2.8	86
24	Mineralization of SaOS-2 cells on enzymatically (silicatein) modified bioactive osteoblast-stimulating surfaces. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2005, 75B, 387-392.	3.4	86
25	Bleomycin, an Antibiotic That Removes Thymine from Double-Stranded DNA. <i>Progress in Molecular Biology and Translational Science</i> , 1977, 20, 21-57.	1.9	84
26	Enzymatic production of biosilica glass using enzymes from sponges: basic aspects and application in nanobiotechnology (material sciences and medicine). <i>Die Naturwissenschaften</i> , 2007, 94, 339-359.	1.6	81
27	Amorphous polyphosphate, a smart bioinspired nano-/bio-material for bone and cartilage regeneration: towards a new paradigm in tissue engineering. <i>Journal of Materials Chemistry B</i> , 2018, 6, 2385-2412.	5.8	81
28	Bioorganic/inorganic hybrid composition of sponge spicules: Matrix of the giant spicules and of the comitalia of the deep sea hexactinellid <i>Monorhaphis</i> . <i>Journal of Structural Biology</i> , 2008, 161, 188-203.	2.8	78
29	Evolutionary relationships of Metazoa within the eukaryotes based on molecular data from Porifera. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 1999, 266, 63-73.	2.6	75
30	Amorphous Ca ²⁺ polyphosphate nanoparticles regulate the ATP level in bone-like SaOS-2 cells. <i>Journal of Cell Science</i> , 2015, 128, 2202-2207.	2.0	75
31	Novel photoreception system in sponges?. <i>Biosensors and Bioelectronics</i> , 2006, 21, 1149-1155.	10.1	74
32	Silicateins, the major biosilica forming enzymes present in demosponges: Protein analysis and phylogenetic relationship. <i>Gene</i> , 2007, 395, 62-71.	2.2	74
33	Formation of giant spicules in the deep-sea hexactinellid <i>Monorhaphis chuni</i> (Schulze 1904): electron-microscopic and biochemical studies. <i>Cell and Tissue Research</i> , 2007, 329, 363-378.	2.9	74
34	Cytotoxic 14-Membered Macrolides from a Mangrove-Derived Endophytic Fungus, <i>Pestalotiopsis microspora</i> . <i>Journal of Natural Products</i> , 2016, 79, 2332-2340.	3.0	74
35	The stem cell concept in sponges (Porifera): Metazoan traits. <i>Seminars in Cell and Developmental Biology</i> , 2006, 17, 481-491.	5.0	73
36	Silicatein expression in the hexactinellid <i>Crateromorpha meyeri</i> : the lead marker gene restricted to siliceous sponges. <i>Cell and Tissue Research</i> , 2008, 333, 339-351.	2.9	73

#	ARTICLE	IF	CITATIONS
37	High biocompatibility and improved osteogenic potential of amorphous calcium carbonate/vaterite. <i>Journal of Materials Chemistry B</i> , 2016, 4, 376-386.	5.8	73
38	Polyphosphate as donor of high-energy phosphate for the synthesis of ADP and ATP. <i>Journal of Cell Science</i> , 2017, 130, 2747-2756.	2.0	71
39	Silintaphinâ€f interaction with silicatein during structureâ€g guiding bioâ€silica formation. <i>FEBS Journal</i> , 2011, 278, 1145-1155.	4.7	68
40	Genetic, biological and structural hierarchies during sponge spicule formation: from soft solâ€gels to solid 3D silica composite structures. <i>Soft Matter</i> , 2012, 8, 9501.	2.7	68
41	A new printable and durable N,O-carboxymethyl chitosanâ€Ca ²⁺ â€polyphosphate complex with morphogenetic activity. <i>Journal of Materials Chemistry B</i> , 2015, 3, 1722-1730.	5.8	68
42	Changes in metabolism of inorganic polyphosphate in rat tissues and human cells during development and apoptosis. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1997, 1335, 51-60.	2.4	66
43	The role of the silicatein-1± interactor silintaphin-1 in biomimetic biomineralization. <i>Biomaterials</i> , 2009, 30, 1648-1656.	11.4	65
44	Enzyme-based biosilica and biocalcite: biomaterials for the future in regenerative medicine. <i>Trends in Biotechnology</i> , 2014, 32, 441-447.	9.3	65
45	Polyphosphate: A Morphogenetically Active Implant Material Serving as Metabolic Fuel for Bone Regeneration. <i>Macromolecular Bioscience</i> , 2015, 15, 1182-1197.	4.1	62
46	Silicateinsâ€A Novel Paradigm in Bioinorganic Chemistry: Enzymatic Synthesis of Inorganic Polymeric Silica. <i>Chemistry - A European Journal</i> , 2013, 19, 5790-5804.	3.3	61
47	Induction of carbonic anhydrase in SaOS-2 cells, exposed to bicarbonate and consequences for calcium phosphate crystal formation. <i>Biomaterials</i> , 2013, 34, 8671-8680.	11.4	60
48	Anti-HIV-1 Activity of Inorganic Polyphosphates. <i>Journal of Acquired Immune Deficiency Syndromes</i> , 1997, 14, 110-118.	0.3	60
49	A Microplate Assay for DNA Damage Determination (Fast Micromethod) in Cell Suspensions and Solid Tissues. <i>Analytical Biochemistry</i> , 1999, 270, 195-200.	2.4	57
50	Molecular control of serial module formation along the apicalâ€basal axis in the sponge <i>Lubomirskia baicalensis</i> : silicateins, mannose-binding lectin and mago nashi. <i>Development Genes and Evolution</i> , 2006, 216, 229-242.	0.9	56
51	Action of 1-Î²-d-Arabinofuranosylcytosine on mammalian tumor cellsâ€1.. <i>European Journal of Cancer</i> , 1972, 8, 391-396.	0.9	54
52	The Marine Sponge-Derived Inorganic Polymers, Biosilica and Polyphosphate, as Morphogenetically Active Matrices/Scaffolds for the Differentiation of Human Multipotent Stromal Cells: Potential Application in 3D Printing and Distraction Osteogenesis. <i>Marine Drugs</i> , 2014, 12, 1131-1147.	4.6	54
53	Fractal-related assembly of the axial filament in the demosponge <i>Suberites domuncula</i> : Relevance to biomineralization and the formation of biogenic silica. <i>Biomaterials</i> , 2007, 28, 4501-4511.	11.4	53
54	Morphogenetic Activity of Silica and Bio-silica on the Expression of Genes Controlling Biomineralization Using SaOS-2 Cells. <i>Calcified Tissue International</i> , 2007, 81, 382-393.	3.1	53

#	ARTICLE	IF	CITATIONS
55	Isolation and characterization of Wnt pathway-related genes from Porifera. Cell Biology International, 2007, 31, 939-949.	3.0	53
56	Alginate/silica composite hydrogel as a potential morphogenetically active scaffold for three-dimensional tissue engineering. RSC Advances, 2013, 3, 11185.	3.6	52
57	Differentiation capacity of epithelial cells in the sponge Suberites domuncula. Cell and Tissue Research, 2004, 316, 271-280.	2.9	51
58	The inorganic polymer, polyphosphate, blocks binding of SARS-CoV-2 spike protein to ACE2 receptor at physiological concentrations. Biochemical Pharmacology, 2020, 182, 114215.	4.4	51
59	Analysis of the axial filament in spicules of the demosponge Geodia cydonium: Different silicatein composition in microscleres (asters) and megascleres (oxeas and triaenes). European Journal of Cell Biology, 2007, 86, 473-487.	3.6	49
60	In vitro degradation of porous PLLA/pearl powder composite scaffolds. Materials Science and Engineering C, 2014, 38, 227-234.	7.3	49
61	Modulation of the Initial Mineralization Process of SaOS-2 Cells by Carbonic Anhydrase Activators and Polyphosphate. Calcified Tissue International, 2014, 94, 495-509.	3.1	49
62	Polyphosphate as a metabolic fuel in Metazoa: A foundational breakthrough invention for biomedical applications. Biotechnology Journal, 2016, 11, 11-30.	3.5	48
63	Principles of Biofouling Protection in Marine Sponges: A Model for the Design of Novel Biomimetic and Bio-inspired Coatings in the Marine Environment?. Marine Biotechnology, 2013, 15, 375-398.	2.4	47
64	Transformation of Amorphous Polyphosphate Nanoparticles into Coacervate Complexes: An Approach for the Encapsulation of Mesenchymal Stem Cells. Small, 2018, 14, e1801170.	10.0	47
65	Innate immune defense of the sponge Suberites domuncula against gram-positive bacteria: induction of lysozyme and AdaPTin. Marine Biology, 2005, 146, 271-282.	1.5	45
66	Bio-sintering processes in hexactinellid sponges: Fusion of bio-silica in giant basal spicules from Monorhaphis chuni. Journal of Structural Biology, 2009, 168, 548-561.	2.8	45
67	A cryptochrome-based photosensory system in the siliceous sponge <i>Suberites domuncula</i> (Demospongiae). FEBS Journal, 2010, 277, 1182-1201.	4.7	45
68	Demosponge EST Sequencing Reveals a Complex Genetic Toolkit of the Simplest Metazoans. Molecular Biology and Evolution, 2010, 27, 2747-2756.	8.9	45
69	Indole Diterpenoids from an Endophytic <i>Penicillium</i> sp.. Journal of Natural Products, 2019, 82, 1412-1423.	3.0	45
70	Silicatein-Mediated Polycondensation of Orthosilicic Acid: Modeling of a Catalytic Mechanism Involving Ring Formation. Silicon, 2012, 4, 33-38.	3.3	44
71	Luciferase a light source for the silica-based optical waveguides (spicules) in the demosponge Suberites domuncula. Cellular and Molecular Life Sciences, 2009, 66, 537-552.	5.4	43
72	Enzymatically Synthesized Inorganic Polymers as Morphogenetically Active Bone Scaffolds. International Review of Cell and Molecular Biology, 2014, 313, 27-77.	3.2	42

#	ARTICLE	IF	CITATIONS
73	Xanthenes and sesquiterpene derivatives from a marine-derived fungus <i>Scopulariopsis</i> sp.. <i>Tetrahedron</i> , 2016, 72, 2411-2419.	1.9	42
74	Cold stress defense in the freshwater sponge <i>Lubomirskia baicalensis</i> . <i>FEBS Journal</i> , 2007, 274, 23-36.	4.7	41
75	Retinol encapsulated into amorphous Ca ²⁺ polyphosphate nanospheres acts synergistically in MC3T3-E1 cells. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 93, 214-223.	4.3	41
76	Brominated Azaphilones from the Sponge-Associated Fungus <i>Penicillium canescens</i> Strain 4.14.6a. <i>Journal of Natural Products</i> , 2019, 82, 2159-2166.	3.0	41
77	Biogenic Origin of Polymetallic Nodules from the Clarion-Clipperton Zone in the Eastern Pacific Ocean: Electron Microscopic and EDX Evidence. <i>Marine Biotechnology</i> , 2009, 11, 99-108.	2.4	39
78	Amorphous polyphosphate/hydroxyapatite: A morphogenetically active substrate for bone-related SaOS-2 cells in vitro. <i>Acta Biomaterialia</i> , 2016, 31, 358-367.	8.3	39
79	Identification of a silicatein(-related) protease in the giant spicules of the deep-sea hexactinellid <i>Monorhaphis chuni</i> . <i>Journal of Experimental Biology</i> , 2008, 211, 300-309.	1.7	37
80	Amorphous polyphosphate/amorphous calcium carbonate implant material with enhanced bone healing efficacy in a critical-size defect in rats. <i>Biomedical Materials (Bristol)</i> , 2016, 11, 035005.	3.3	37
81	Fabrication of amorphous strontium polyphosphate microparticles that induce mineralization of bone cells in vitro and in vivo. <i>Acta Biomaterialia</i> , 2017, 50, 89-101.	8.3	37
82	Evolution of Metazoan Cell Junction Proteins: The Scaffold Protein MAGI and the Transmembrane Receptor Tetraspanin in the Demosponge <i>Suberites domuncula</i> . <i>Journal of Molecular Evolution</i> , 2004, 59, 41-50.	1.8	36
83	Nonenzymatic Transformation of Amorphous CaCO ₃ into Calcium Phosphate Mineral after Exposure to Sodium Phosphate in Vitro: Implications for in Vivo Hydroxyapatite Bone Formation. <i>ChemBioChem</i> , 2015, 16, 1323-1332.	2.6	36
84	Biosilica formation in spicules of the sponge <i>Suberites domuncula</i> : Synchronous expression of a gene cluster. <i>Genomics</i> , 2005, 85, 666-678.	2.9	35
85	Modular Small Diameter Vascular Grafts with Bioactive Functionalities. <i>PLoS ONE</i> , 2015, 10, e0133632.	2.5	35
86	Biosilica-loaded poly(ϵ -caprolactone) nanofibers mats provide a morphogenetically active surface scaffold for the growth and mineralization of the osteoclast-related SaOS-2 cells. <i>Biotechnology Journal</i> , 2014, 9, 1312-1321.	3.5	33
87	Isoquercitrin and polyphosphate co-enhance mineralization of human osteoblast-like SaOS-2 cells via separate activation of two RUNX2 cofactors AFT6 and Ets1. <i>Biochemical Pharmacology</i> , 2014, 89, 413-421.	4.4	33
88	Purification and characterization of two exopolyphosphatases from the marine sponge <i>Tethya lyncurium</i> . <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1995, 1245, 17-28.	2.4	32
89	Molecular/chemical ecology in sponges: evidence for an adaptive antibacterial response in <i>Suberites domuncula</i> . <i>Marine Biology</i> , 2004, 144, 19-29.	1.5	32
90	Selenium affects biosilica formation in the demosponge <i>Suberites domuncula</i> . <i>FEBS Journal</i> , 2005, 272, 3838-3852.	4.7	32

#	ARTICLE	IF	CITATIONS
91	Functional Polymerâ€Opals from Coreâ€Shell Colloids. <i>Macromolecular Rapid Communications</i> , 2007, 28, 1987-1994.	3.9	32
92	The 2â€2-5â€2-oligoadenylate synthetase in the lowest metazoa: isolation, cloning, expression and functional activity in the sponge <i>Lubomirskia baicalensis</i> . <i>Molecular Immunology</i> , 2008, 45, 945-953.	2.2	32
93	Dual effect of inorganic polymeric phosphate/polyphosphate on osteoblasts and osteoclasts in vitro. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2012, 7, n/a-n/a.	2.7	32
94	Lactones from the Sponge-Derived Fungus <i>Talaromyces rugulosus</i> . <i>Marine Drugs</i> , 2017, 15, 359.	4.6	32
95	Inorganic polyphosphate induces accelerated tube formation of HUVEC endothelial cells. <i>Cellular and Molecular Life Sciences</i> , 2018, 75, 21-32.	5.4	32
96	Cryptic Secondary Metabolites from the Sponge-Associated Fungus <i>Aspergillus ochraceus</i> . <i>Marine Drugs</i> , 2019, 17, 99.	4.6	32
97	Amplified morphogenetic and bone forming activity of amorphous versus crystalline calcium phosphate/polyphosphate. <i>Acta Biomaterialia</i> , 2020, 118, 233-247.	8.3	32
98	Manganese/polymetallic nodules: Micro-structural characterization of exolithobiontic- and endlithobiontic microbial biofilms by scanning electron microscopy. <i>Micron</i> , 2009, 40, 350-358.	2.2	31
99	Silica as a morphogenetically active inorganic polymer. <i>Biomaterials Science</i> , 2013, 1, 669.	5.4	31
100	Sesquiterpenoids from the Endophytic Fungus <i>Rhinocladiella similis</i> . <i>Journal of Natural Products</i> , 2019, 82, 1055-1062.	3.0	31
101	Inorganic polyphosphates in the developing freshwater sponge <i>Ephydatia muelleri</i> : Effect of stress by polluted waters. <i>Environmental Toxicology and Chemistry</i> , 1996, 15, 1329-1334.	4.3	30
102	Magnetic resonance imaging of the siliceous skeleton of the demosponge <i>Lubomirskia baicalensis</i> . <i>Journal of Structural Biology</i> , 2006, 153, 31-41.	2.8	30
103	NanoSIMS: Insights into the Organization of the Proteinaceous Scaffold within Hexactinellid Sponge Spicules. <i>ChemBioChem</i> , 2010, 11, 1077-1082.	2.6	30
104	Mineralization of boneâ€related Sa<sc>OS</sc>â€2 cells under physiological hypoxic conditions. <i>FEBS Journal</i> , 2016, 283, 74-87.	4.7	30
105	Enhancement of Wound Healing in Normal and Diabetic Mice by Topical Application of Amorphous Polyphosphate. Superior Effect of a Hostâ€Guest Composite Material Composed of Collagen (Host) and Polyphosphate (Guest). <i>Polymers</i> , 2017, 9, 300.	4.5	30
106	Daminin, a bioactive pyrrole alkaloid from the Mediterranean sponge <i>Axinella damicornis</i> . <i>Tetrahedron</i> , 2005, 61, 7266-7270.	1.9	29
107	Axial growth of hexactinellid spicules: Formation of cone-like structural units in the giant basal spicules of the hexactinellid <i>Monorhaphis</i> . <i>Journal of Structural Biology</i> , 2008, 164, 270-280.	2.8	29
108	Morphology of Sponge Spicules: Silicatein a Structural Protein for Bioâ€Silica Formation. <i>Advanced Engineering Materials</i> , 2010, 12, B422.	3.5	29

#	ARTICLE	IF	CITATIONS
109	The enzyme carbonic anhydrase as an integral component of biogenic Ca carbonate formation in sponge spicules. <i>FEBS Open Bio</i> , 2013, 3, 357-362.	2.3	29
110	Dynamics of skeleton formation in the Lake Baikal sponge <i>Lubomirskia baicalensis</i> . Part I. Biological and biochemical studies. <i>Die Naturwissenschaften</i> , 2005, 92, 128-133.	1.6	28
111	Characterization and osteogenic activity of a silicatein/biosilica-coated chitosan-graft-polycaprolactone. <i>Acta Biomaterialia</i> , 2014, 10, 4456-4464.	8.3	28
112	<i>In vitro</i> and <i>in vivo</i> enhancement of osteogenic capacity in a synthetic BMP-2 derived peptide-coated mineralized collagen composite. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016, 10, 99-107.	2.7	28
113	Role of ATP during the initiation of microvascularization: acceleration of an autocrine sensing mechanism facilitating chemotaxis by inorganic polyphosphate. <i>Biochemical Journal</i> , 2018, 475, 3255-3273.	3.7	28
114	In Situ Polyphosphate Nanoparticle Formation in Hybrid Poly(vinyl alcohol)/Karaya Gum Hydrogels: A Porous Scaffold Inducing Infiltration of Mesenchymal Stem Cells. <i>Advanced Science</i> , 2019, 6, 1801452.	11.2	28
115	Susceptibility of Primary Human Glial Fibrillary Acidic Protein-Positive Brain Cells to Human Immunodeficiency Virus Infection In Vitro: Anti-HIV Activity of Memantine. <i>AIDS Research and Human Retroviruses</i> , 1991, 7, 89-95.	1.1	27
116	Evidence for biogenic processes during formation of ferromanganese crusts from the Pacific Ocean: Implications of biologically induced mineralization. <i>Micron</i> , 2009, 40, 526-535.	2.2	27
117	Hardening of bio-silica in sponge spicules involves an aging process after its enzymatic polycondensation: Evidence for an aquaporin-mediated water absorption. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2011, 1810, 713-726.	2.4	27
118	Interaction of the retinoic acid signaling pathway with spicule formation in the marine sponge <i>Suberites domuncula</i> through activation of bone morphogenetic protein-1. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2011, 1810, 1178-1194.	2.4	27
119	Biosilica. <i>Advances in Marine Biology</i> , 2012, 62, 231-271.	1.4	27
120	Porifera Lectins: Diversity, Physiological Roles and Biotechnological Potential. <i>Marine Drugs</i> , 2015, 13, 5059-5101.	4.6	27
121	Common Genetic Denominators for Ca ⁺⁺ -Based Skeleton in Metazoa: Role of Osteoclast-Stimulating Factor and of Carbonic Anhydrase in a Calcareous Sponge. <i>PLoS ONE</i> , 2012, 7, e34617.	2.5	27
122	Mitochondrial genome of <i>Suberites domuncula</i> : Palindromes and inverted repeats are abundant in non-coding regions. <i>Gene</i> , 2008, 412, 1-11.	2.2	26
123	Tetrahydroanthraquinone Derivatives from the Endophytic Fungus <i>Stemphylium globuliferum</i> . <i>European Journal of Organic Chemistry</i> , 2015, 2015, 2646-2653.	2.4	26
124	Development of a morphogenetically active scaffold for three-dimensional growth of bone cells: biosilica-alginate hydrogel for SaOS-2 cell cultivation. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2015, 9, E39-E50.	2.7	26
125	Polyphosphate as a Bioactive and Biodegradable Implant Material: Induction of Bone Regeneration in Rats. <i>Advanced Engineering Materials</i> , 2016, 18, 1406-1417.	3.5	26
126	Rebalancing β -Amyloid-Induced Decrease of ATP Level by Amorphous Nano/Micro Polyphosphate: Suppression of the Neurotoxic Effect of Amyloid β -Protein Fragment 25-35. <i>International Journal of Molecular Sciences</i> , 2017, 18, 2154.	4.1	26

#	ARTICLE	IF	CITATIONS
127	<p></p>Cuprous oxide nanoparticles reduces hypertrophic scarring by inducing fibroblast apoptosis</p>. International Journal of Nanomedicine, 2019, Volume 14, 5989-6000.	6.7	26
128	Organized bacterial assemblies in manganese nodules: evidence for a role of S-layers in metal deposition. Geo-Marine Letters, 2009, 29, 85-91.	1.1	25
129	Hydroquinone derivatives from the marine-derived fungus Gliomastix sp.. RSC Advances, 2017, 7, 30640-30649.	3.6	25
130	Uptake of polyphosphate microparticles in vitro (SaOS-2 and HUVEC cells) followed by an increase of the intracellular ATP pool size. PLoS ONE, 2017, 12, e0188977.	2.5	25
131	Morphogenetic (Mucin Expression) as Well as Potential Anti-Corona Viral Activity of the Marine Secondary Metabolite Polyphosphate on A549 Cells. Marine Drugs, 2020, 18, 639.	4.6	25
132	Sponge Biosilica Formation Involves Syneresis Following Polycondensation in vivo. ChemBioChem, 2011, 12, 2316-2324.	2.6	24
133	A Novel Method for Determination of Inorganic Polyphosphates Using the Fluorescent Dye Fura-2. Analytical Biochemistry, 1997, 246, 176-184.	2.4	23
134	Allograft rejection in the mixed cell reaction system of the demosponge Suberites domuncula is controlled by differential expression of apoptotic genes. Immunogenetics, 2004, 56, 597-610.	2.4	23
135	Cytotoxic acyl amides from the soil fungus Gymnascella dankaliensis. Bioorganic and Medicinal Chemistry, 2015, 23, 712-719.	3.0	23
136	Potential biological role of laccase from the sponge Suberites domuncula as an antibacterial defense component. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 118-128.	2.4	23
137	The biomaterial polyphosphate blocks stoichiometric binding of the SARS-CoV-2 S-protein to the cellular ACE2 receptor. Biomaterials Science, 2020, 8, 6603-6610.	5.4	23
138	Evagination of Cells Controls Bio-Silica Formation and Maturation during Spicule Formation in Sponges. PLoS ONE, 2011, 6, e20523.	2.5	23
139	Organization and expression of the chum salmon insulin-like growth factor II gene. FEBS Letters, 1997, 416, 344-348.	2.8	22
140	Flashing light signaling circuit in sponges: Endogenous light generation after tissue ablation in <i>Suberites domuncula</i>. Journal of Cellular Biochemistry, 2010, 111, 1377-1389.	2.6	22
141	Amorphous, Smart, and Bioinspired Polyphosphate Nano/Microparticles: A Biomaterial for Regeneration and Repair of Osteo-Articular Impairments In-Situ. International Journal of Molecular Sciences, 2018, 19, 427.	4.1	22
142	Expanding the chemical diversity of an endophytic fungus <i>Bulgaria inquinans</i>, an ascomycete associated with mistletoe, through an OSMAC approach. RSC Advances, 2019, 9, 25119-25132.	3.6	22
143	Polyketide Derivatives from Mangrove Derived Endophytic Fungus Pseudopestalotiopsis theae. Marine Drugs, 2020, 18, 129.	4.6	22
144	Bioinspired Fabrication of Bio-Silica-Based Bone Substitution Materials. Advanced Engineering Materials, 2010, 12, B438.	3.5	21

#	ARTICLE	IF	CITATIONS
145	Biologically induced transition of bio-silica sol to mesoscopic gelatinous flocs: a biomimetic approach to a controlled fabrication of bio-silica structures. <i>Soft Matter</i> , 2013, 9, 654-664.	2.7	21
146	Enzyme-accelerated and structure-guided crystallization of calcium carbonate: Role of the carbonic anhydrase in the homologous system. <i>Acta Biomaterialia</i> , 2014, 10, 450-462.	8.3	21
147	Acceleration of chronic wound healing by bio-inorganic polyphosphate: <i>in vitro</i> studies and first clinical applications. <i>Theranostics</i> , 2022, 12, 18-34.	10.0	21
148	Contribution of biomineralization during growth of polymetallic nodules and ferromanganese crusts from the Pacific Ocean. <i>Frontiers of Materials Science in China</i> , 2009, 3, 109-123.	0.5	20
149	A bio-mimicking approach to fabricate an artificial matrix for cartilage tissue engineering using magnesium-polyphosphate and hyaluronic acid. <i>RSC Advances</i> , 2016, 6, 88559-88570.	3.6	20
150	Induction of cryptic metabolites of the endophytic fungus <i>Trichocladium</i> sp. through OSMAC and co-cultivation. <i>RSC Advances</i> , 2019, 9, 27279-27288.	3.6	20
151	Expression pattern of the Brachyury and Tbx2 homologues from the sponge <i>Suberites domuncula</i> . <i>Biology of the Cell</i> , 2005, 97, 641-650.	2.0	19
152	Novel mechanism for the radiation-induced bystander effect: Nitric oxide and ethylene determine the response in sponge cells. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2006, 597, 62-72.	1.0	19
153	Electrospun bioactive mats enriched with Ca-polyphosphate/retinol nanospheres as potential wound dressing. <i>Biochemistry and Biophysics Reports</i> , 2015, 3, 150-160.	1.3	19
154	A new depsidone derivative from mangrove sediment derived fungus <i>Lasiodiplodia theobromae</i> . <i>Natural Product Research</i> , 2019, 33, 2215-2222.	1.8	19
155	Distribution of Microfossils Within Polymetallic Nodules: Biogenic Clusters Within Manganese Layers. <i>Marine Biotechnology</i> , 2012, 14, 96-105.	2.4	18
156	The morphogenetically active polymer, inorganic polyphosphate complexed with GdCl ₃ , as an inducer of hydroxyapatite formation <i>in vitro</i> . <i>Biochemical Pharmacology</i> , 2016, 102, 97-106.	4.4	18
157	Biomimetic Alginate/Gelatin Cross-Linked Hydrogels Supplemented with Polyphosphate for Wound Healing Applications. <i>Molecules</i> , 2020, 25, 5210.	3.8	18
158	Nanoparticle-directed and ionically forced polyphosphate coacervation: a versatile and reversible core-shell system for drug delivery. <i>Scientific Reports</i> , 2020, 10, 17147.	3.3	18
159	Silicatein-mediated incorporation of titanium into spicules from the demosponge <i>Suberites domuncula</i> . <i>Cell and Tissue Research</i> , 2010, 339, 429-436.	2.9	17
160	Nocturnin in the demosponge <i>Suberites domuncula</i> : a potential circadian clock protein controlling glycogenin synthesis in sponges. <i>Biochemical Journal</i> , 2012, 448, 233-242.	3.7	17
161	Bifunctional dentifrice: Amorphous polyphosphate a regeneratively active sealant with potent anti- <i>Streptococcus mutans</i> activity. <i>Dental Materials</i> , 2017, 33, 753-764.	3.5	17
162	Expression of silicatein in spicules from the Baikalian sponge. <i>Cell Biology International</i> , 2005, 29, 943-951.	3.0	16

#	ARTICLE	IF	CITATIONS
163	Fabrication of a new physiological macroporous hybrid biomaterial/bioscaffold material based on polyphosphate and collagen by freeze-extraction. <i>Journal of Materials Chemistry B</i> , 2017, 5, 3823-3835.	5.8	16
164	Calcium Polyphosphate Nanoparticles Act as an Effective Inorganic Phosphate Source during Osteogenic Differentiation of Human Mesenchymal Stem Cells. <i>International Journal of Molecular Sciences</i> , 2019, 20, 5801.	4.1	16
165	The therapeutic potential of inorganic polyphosphate: A versatile physiological polymer to control coronavirus disease (COVID-19). <i>Theranostics</i> , 2021, 11, 6193-6213.	10.0	16
166	Porifera a reference phylum for evolution and bioprospecting: the power of marine genomics. <i>Keio Journal of Medicine</i> , 2004, 53, 159-165.	1.1	15
167	New 2-Methoxy Acetylenic Acids and Pyrazole Alkaloids from the Marine Sponge <i>Cinachyrella</i> sp.. <i>Marine Drugs</i> , 2017, 15, 356.	4.6	15
168	Collagen-inducing biologization of prosthetic material for hernia repair: Polypropylene meshes coated with polyP/collagen. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 2109-2121.	3.4	15
169	Biomimetic transformation of polyphosphate microparticles during restoration of damaged teeth. <i>Dental Materials</i> , 2019, 35, 244-256.	3.5	15
170	A biomimetic approach to ameliorate dental hypersensitivity by amorphous polyphosphate microparticles. <i>Dental Materials</i> , 2016, 32, 775-783.	3.5	14
171	Lanthanum-containing bioparticles are associated with the influence of lanthanum on high phosphate mediated bone marrow stromal cells viability. <i>BioMetals</i> , 2018, 31, 771-784.	4.1	14
172	Biologization of Allogeneic Bone Grafts with Polyphosphate: A Route to a Biomimetic Periosteum. <i>Advanced Functional Materials</i> , 2019, 29, 1905220.	14.9	14
173	Caged Dexamethasone/Quercetin Nanoparticles, Formed of the Morphogenetic Active Inorganic Polyphosphate, are Strong Inducers of MUC5AC. <i>Marine Drugs</i> , 2021, 19, 64.	4.6	14
174	Potential of the Cytotoxic Activity of Copper by Polyphosphate on Biofilm-Producing Bacteria: A Bioinspired Approach. <i>Marine Drugs</i> , 2012, 10, 2369-2387.	4.6	13
175	Molecular cross-talk between sponge host and associated microbes. <i>Phytochemistry Reviews</i> , 2013, 12, 369-390.	6.5	13
176	Targeted solid phase fermentation of the soil dwelling fungus <i>Gymnascella dankaliensis</i> yields new brominated tyrosine-derived alkaloids. <i>RSC Advances</i> , 2016, 6, 81685-81693.	3.6	13
177	Electrospinning of Bioactive Wound-Healing Nets. <i>Progress in Molecular and Subcellular Biology</i> , 2017, 55, 259-290.	1.6	13
178	A Novel Biomimetic Approach to Repair Enamel Cracks/Carious Damages and to Reseal Dentinal Tubules by Amorphous Polyphosphate. <i>Polymers</i> , 2017, 9, 120.	4.5	13
179	New Acyclic Cytotoxic Jaspilkinolide Derivative from the Marine Sponge <i>Jaspis splendens</i> . <i>Marine Drugs</i> , 2019, 17, 100.	4.6	13
180	Potential of the effectiveness of bleomycin by AAT-specific DNA ligands in vitro as well as in vivo. <i>Cancer Letters</i> , 1975, 1, 127-132.	7.2	12

#	ARTICLE	IF	CITATIONS
181	The Unique Invention of the Siliceous Sponges: Their Enzymatically Made Bio-Silica Skeleton. <i>Progress in Molecular and Subcellular Biology</i> , 2011, 52, 251-281.	1.6	12
182	Hierarchical composition of the axial filament from spicules of the siliceous sponge <i>Suberites domuncula</i> : from biosilica-synthesizing nanofibrils to structure- and morphology-guiding triangular stems. <i>Cell and Tissue Research</i> , 2013, 351, 49-58.	2.9	12
183	The Understanding of the Metazoan Skeletal System, Based on the Initial Discoveries with Siliceous and Calcareous Sponges. <i>Marine Drugs</i> , 2017, 15, 172.	4.6	12
184	Azacoccones F-H, new flavipin-derived alkaloids from an endophytic fungus <i>Epicoccum nigrum</i> MK214079. <i>FÄ-toterapÄ-c</i> , 2020, 146, 104698.	2.2	12
185	A physiologically active interpenetrating collagen network that supports growth and migration of epidermal keratinocytes: zinc-polyP nanoparticles integrated into compressed collagen. <i>Journal of Materials Chemistry B</i> , 2020, 8, 5892-5902.	5.8	12
186	3D bioprinting of tissue units with mesenchymal stem cells, retaining their proliferative and differentiating potential, in polyphosphate-containing bio-ink. <i>Biofabrication</i> , 2022, 14, 015016.	7.1	12
187	Bleomycin-sensitivity test: Application for human squamous cell carcinoma. <i>Cancer</i> , 1977, 40, 2787-2791.	4.1	11
188	Regional and modular expression of morphogenetic factors in the demosponge <i>Lubomirskia baicalensis</i> . <i>Micron</i> , 2008, 39, 447-460.	2.2	11
189	Restoration of Impaired Metabolic Energy Balance (ATP Pool) and Tube Formation Potential of Endothelial Cells under "high glucose", Diabetic Conditions by the Bioinorganic Polymer Polyphosphate. <i>Polymers</i> , 2017, 9, 575.	4.5	11
190	Aged Mice Devoid of the M3 Muscarinic Acetylcholine Receptor Develop Mild Dry Eye Disease. <i>International Journal of Molecular Sciences</i> , 2021, 22, 6133.	4.1	11
191	Symbiotic Interaction Between Dinoflagellates and the Demosponge <i>Lubomirskia baicalensis</i> : Aquaporin-Mediated Glycerol Transport. <i>Progress in Molecular and Subcellular Biology</i> , 2009, 47, 145-170.	1.6	10
192	Flashing light in sponges through their siliceous fiber network: A new strategy of "neuronal transmission" in animals. <i>Science Bulletin</i> , 2012, 57, 3300-3311.	1.7	10
193	The silicatein propeptide acts as inhibitor/modulator of self-organization during spicule axial filament formation. <i>FEBS Journal</i> , 2013, 280, 1693-1708.	4.7	10
194	Self-healing, an intrinsic property of biomineralization processes. <i>IUBMB Life</i> , 2013, 65, 382-396.	3.4	10
195	Polyphosphate Reverses the Toxicity of the Quasi-Enzyme Bleomycin on Alveolar Endothelial Lung Cells In Vitro. <i>Cancers</i> , 2021, 13, 750.	3.7	10
196	Triple-target stimuli-responsive anti-COVID-19 face mask with physiological virus-inactivating agents. <i>Biomaterials Science</i> , 2021, 9, 6052-6063.	5.4	10
197	Self-Healing Properties of Bioinspired Amorphous CaCO ₃ /Polyphosphate-Supplemented Cement. <i>Molecules</i> , 2020, 25, 2360.	3.8	10
198	Differential Expression of the Demosponge (<i>Suberites domuncula</i>) Carotenoid Oxygenases in Response to Light: Protection Mechanism Against the Self-Produced Toxic Protein (Suberitine). <i>Marine Drugs</i> , 2012, 10, 177-199.	4.6	9

#	ARTICLE	IF	CITATIONS
199	The phosphoanhydride bond: one cornerstone of life. <i>Biochemist</i> , 2019, 41, 22-27.	0.5	9
200	Activity and kinetics of DNA dependent DNA and RNA polymerases in xeroderma pigmentosum and in normal human skin. <i>Archives of Dermatological Research</i> , 1971, 240, 334-341.	1.9	8
201	Influence of Altered Microbes on Soil Organic Carbon Availability in Karst Agricultural Soils Contaminated by Pb-Zn Tailings. <i>Frontiers in Microbiology</i> , 2018, 9, 2062.	3.5	8
202	An unexpected biomaterial against SARS-CoV-2: Bio-polyphosphate blocks binding of the viral spike to the cell receptor. <i>Materials Today</i> , 2021, 51, 504-524.	14.2	8
203	Biosilica-glass formation using enzymes from sponges [silicatein]: Basic aspects and application in biomedicine [bone reconstitution material and osteoporosis]. <i>Frontiers of Materials Science</i> , 2011, 5, 266-281.	2.2	7
204	Bio-Sintering/Bio-Fusion of Silica in Sponge Spicules. <i>Advanced Engineering Materials</i> , 2012, 14, B4.	3.5	7
205	Metazoan Circadian Rhythm: Toward an Understanding of a Light-Based Zeitgeber in Sponges. <i>Integrative and Comparative Biology</i> , 2013, 53, 103-117.	2.0	7
206	Didymellanosine, a new decahydrofluorene analogue, and ascoglactone C from <i>Didymella</i> sp. IEA-3B.1, an endophyte of <i>Terminalia catappa</i> . <i>RSC Advances</i> , 2020, 10, 7232-7240.	3.6	7
207	Cloning and expression of a tauropine dehydrogenase from the marine sponge <i>Suberites domuncula</i> . <i>Marine Biology</i> , 2008, 153, 1219-1232.	1.5	6
208	Amorphous polyphosphate nanoparticles: application of the morphogenetically active inorganic polymer for personalized tissue regeneration. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 363001.	2.8	6
209	Polyphosphate, the physiological metabolic fuel for corneal cells: a potential biomaterial for ocular surface repair. <i>Biomaterials Science</i> , 2019, 7, 5506-5515.	5.4	6
210	Amorphous Polyphosphate and CaCarbonate Nanoparticles Improve the Self-Healing Properties of both Technical and Medical Cements. <i>Biotechnology Journal</i> , 2020, 15, e2000101.	3.5	6
211	Prenylated cyclohexene-type meroterpenoids and sulfur-containing xanthenes produced by <i>Pseudopestalotopsis theae</i> . <i>Phytochemistry</i> , 2022, 197, 113124.	2.9	6
212	Inorganic Polymers: Morphogenic Inorganic Biopolymers for Rapid Prototyping Chain. <i>Progress in Molecular and Subcellular Biology</i> , 2013, 54, 235-259.	1.6	5
213	New Target Sites for Treatment of Osteoporosis. <i>Progress in Molecular and Subcellular Biology</i> , 2017, 55, 187-219.	1.6	5
214	Inorganic Polymeric Materials for Injured Tissue Repair: Biocatalytic Formation and Exploitation. <i>Biomedicines</i> , 2022, 10, 658.	3.2	5
215	Paleoclimate and Evolution: Emergence of Sponges During the Neoproterozoic. <i>Progress in Molecular and Subcellular Biology</i> , 2009, 47, 55-77.	1.6	4
216	Tubulin polymerization promoting protein (TPPP) ortholog from <i>Suberites domuncula</i> and comparative analysis of TPPP/p25 gene family. <i>Biologia (Poland)</i> , 2011, 66, 111-120.	1.5	4

#	ARTICLE	IF	CITATIONS
217	Electrical properties of <i>in vitro</i> biomineralized recombinant silicatein deposited by microfluidics. <i>Applied Physics Letters</i> , 2012, 101, 193702.	3.3	4
218	Morphogenetically-Active Barrier Membrane for Guided Bone Regeneration, Based on Amorphous Polyphosphate. <i>Marine Drugs</i> , 2017, 15, 142.	4.6	4
219	Induction of ambuic acid derivatives by the endophytic fungus <i>Pestalotiopsis lespedezae</i> through an OSMAC approach. <i>Tetrahedron</i> , 2021, 79, 131876.	1.9	4
220	Polyphosphate in Antiviral Protection: A Polyanionic Inorganic Polymer in the Fight Against Coronavirus SARS-CoV-2 Infection. <i>Progress in Molecular and Subcellular Biology</i> , 2022, , 145-189.	1.6	4
221	Complex structures – smart solutions: Formation of siliceous spicules. <i>Communicative and Integrative Biology</i> , 2011, 4, 684-688.	1.4	3
222	Carbonic anhydrase: a key regulatory and detoxifying enzyme for Karst plants. <i>Planta</i> , 2014, 239, 213-229.	3.2	3
223	Involvement of Aquaporin Channels in Water Extrusion from Biosilica during Maturation of Sponge Siliceous Spicules. <i>Biological Bulletin</i> , 2015, 229, 24-37.	1.8	3
224	Utilization of metabolic energy in treatment of ocular surface disorders: polyphosphate as an energy source for corneal epithelial cell proliferation. <i>RSC Advances</i> , 2019, 9, 22531-22539.	3.6	3
225	Transformation of Construction Cement to a Self-Healing Hybrid Binder. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2948.	4.1	3
226	Fusaristatins D- and (7S,8R)-(-)-chlamydospordiols from <i>Fusarium</i> sp. BZCB-CA, an endophyte of <i>Bothriospermum chinense</i> . <i>Tetrahedron</i> , 2021, 85, 132065.	1.9	3
227	Polyphosphate (PolyP) for alveolar cleft repair: study protocol for a pilot randomized controlled trial. <i>Trials</i> , 2021, 22, 393.	1.6	3
228	From nanoparticles via microtemplates and milliparticles to deep-sea nodules: biogenically driven mineral formation. <i>Frontiers of Materials Science</i> , 2012, 6, 97-115.	2.2	2
229	Sustainable Exploitation and Conservation of the Endemic Lake Baikal Sponge (<i>Lubomirskia baicalensis</i>) for Application in Nanobiotechnology. <i>Progress in Molecular and Subcellular Biology</i> , 2009, 47, 383-416.	1.6	2
230	Biomimetic routes to micro/nanofabrication. , 2020, , 83-113.		1
231	From Single Molecules to Nanoscopically Structured Functional Materials. <i>Materials Research Society Symposia Proceedings</i> , 2006, 988, 1.	0.1	0
232	Inside Cover: NanoSIMS: Insights into the Organization of the Proteinaceous Scaffold within Hexactinellid Sponge Spicules (<i>ChemBioChem</i> 8/2010). <i>ChemBioChem</i> , 2010, 11, 1002-1002.	2.6	0
233	Front Cover <i>Advanced Materials</i> 3/2012. <i>Advanced Engineering Materials</i> , 2012, 14, n/a-n/a.	3.5	0
234	Back Cover: <i>Macromol. Biosci.</i> 9/2015. <i>Macromolecular Bioscience</i> , 2015, 15, 1324-1324.	4.1	0

#	ARTICLE	IF	CITATIONS
235	Biocalcite and Carbonic Acid Activators. Progress in Molecular and Subcellular Biology, 2017, 55, 221-257.	1.6	0