

Wei-Chun Chin

List of Publications by Year in descending order

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Version: 2024-02-01

85
papers

4,279
citations

136950

32
h-index

110387

64
g-index

86
all docs

86
docs citations

86
times ranked

5083
citing authors

#	ARTICLE	IF	CITATIONS
1	Spontaneous assembly of marine dissolved organic matter into polymer gels. <i>Nature</i> , 1998, 391, 568-572.	27.8	701
2	Surfaces and interfacial water: Evidence that hydrophilic surfaces have long-range impact. <i>Advances in Colloid and Interface Science</i> , 2006, 127, 19-27.	14.7	286
3	Zinc oxide-engineered nanoparticles: Dissolution and toxicity to marine phytoplankton. <i>Environmental Toxicology and Chemistry</i> , 2010, 29, 2814-2822.	4.3	221
4	Carbon nanotubes promote neuron differentiation from human embryonic stem cells. <i>Biochemical and Biophysical Research Communications</i> , 2009, 384, 426-430.	2.1	185
5	Role of Ca ²⁺ /K ⁺ ion exchange in intracellular storage and release of Ca ²⁺ . <i>Nature</i> , 1998, 395, 908-912.	27.8	178
6	Intracellular Uptake: A Possible Mechanism for Silver Engineered Nanoparticle Toxicity to a Freshwater Alga <i>Ochromonas danica</i> . <i>PLoS ONE</i> , 2010, 5, e15196.	2.5	161
7	Direct and Indirect Toxic Effects of Engineered Nanoparticles on Algae: Role of Natural Organic Matter. <i>ACS Sustainable Chemistry and Engineering</i> , 2013, 1, 686-702.	6.7	154
8	A new role for bicarbonate in mucus formation. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2010, 299, L542-L549.	2.9	143
9	Shrinky-Dink microfluidics: 3D polystyrene chips. <i>Lab on A Chip</i> , 2008, 8, 622.	6.0	137
10	Aggregation, Dissolution, and Stability of Quantum Dots in Marine Environments: Importance of Extracellular Polymeric Substances. <i>Environmental Science & Technology</i> , 2012, 46, 8764-8772.	10.0	113
11	The role of microbial exopolymers in determining the fate of oil and chemical dispersants in the ocean. <i>Limnology and Oceanography Letters</i> , 2016, 1, 3-26.	3.9	105
12	Amphiphilic exopolymers from <i>Sagittula stellata</i> induce DOM self-assembly and formation of marine microgels. <i>Marine Chemistry</i> , 2008, 112, 11-19.	2.3	93
13	Effects of Engineered Nanoparticles on the Assembly of Exopolymeric Substances from Phytoplankton. <i>PLoS ONE</i> , 2011, 6, e21865.	2.5	80
14	Nano- and microplastics trigger secretion of protein-rich extracellular polymeric substances from phytoplankton. <i>Science of the Total Environment</i> , 2020, 748, 141469.	8.0	80
15	Intracellular pathways regulating ciliary beating of rat brain ependymal cells. <i>Journal of Physiology</i> , 2001, 531, 131-140.	2.9	71
16	Secretion in Unicellular Marine Phytoplankton: Demonstration of Regulated Exocytosis in <i>Phaeocystis globosa</i> . <i>Plant and Cell Physiology</i> , 2004, 45, 535-542.	3.1	66
17	Ameliorating effects of extracellular polymeric substances excreted by <i>Thalassiosira pseudonana</i> on algal toxicity of CdSe quantum dots. <i>Aquatic Toxicology</i> , 2013, 126, 214-223.	4.0	64
18	A mixture of anatase and rutile TiO ₂ nanoparticles induces histamine secretion in mast cells. <i>Particle and Fibre Toxicology</i> , 2012, 9, 2.	6.2	63

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19	Can the protein/carbohydrate (P/C) ratio of exopolymeric substances (EPS) be used as a proxy for their "stickiness" and aggregation propensity?. <i>Marine Chemistry</i> , 2020, 218, 103734.	2.3	63
20	The impact of nanoplastics on marine dissolved organic matter assembly. <i>Science of the Total Environment</i> , 2018, 634, 316-320.	8.0	58
21	Nano-plastics induce aquatic particulate organic matter (microgels) formation. <i>Science of the Total Environment</i> , 2020, 706, 135681.	8.0	55
22	Human stem cell neuronal differentiation on silk-carbon nanotube composite. <i>Nanoscale Research Letters</i> , 2012, 7, 126.	5.7	54
23	Extracellular polymeric substances (EPS) producing and oil degrading bacteria isolated from the northern Gulf of Mexico. <i>PLoS ONE</i> , 2018, 13, e0208406.	2.5	53
24	Mucin Secretion Induced by Titanium Dioxide Nanoparticles. <i>PLoS ONE</i> , 2011, 6, e16198.	2.5	51
25	Functionalized Positive Nanoparticles Reduce Mucin Swelling and Dispersion. <i>PLoS ONE</i> , 2010, 5, e15434.	2.5	49
26	Mouse Mast Cell Secretory Granules Can Function as Intracellular Ionic Oscillators. <i>Biophysical Journal</i> , 2001, 80, 2133-2139.	0.5	48
27	Superhydrophobic graphene-based sponge as a novel sorbent for crude oil removal under various environmental conditions. <i>Chemosphere</i> , 2018, 207, 110-117.	8.2	48
28	Marine biopolymer self-assembly: implications for carbon cycling in the ocean. <i>Faraday Discussions</i> , 2008, 139, 393.	3.2	47
29	Role of Polysaccharides in Diatom <i>Thalassiosira pseudonana</i> and its Associated Bacteria in Hydrocarbon Presence. <i>Plant Physiology</i> , 2019, 180, 1898-1911.	4.8	40
30	ATP-Independent Luminal Oscillations and Release of Ca ²⁺ and H ⁺ from Mast Cell Secretory Granules: Implications for Signal Transduction. <i>Biophysical Journal</i> , 2003, 85, 963-970.	0.5	39
31	Spontaneous Assembly of Exopolymers from Phytoplankton. <i>Terrestrial, Atmospheric and Oceanic Sciences</i> , 2009, 20, 741.	0.6	39
32	Effect of Engineered Nanoparticles on Exopolymeric Substances Release from Marine Phytoplankton. <i>Nanoscale Research Letters</i> , 2017, 12, 620.	5.7	36
33	Light-induced aggregation of microbial exopolymeric substances. <i>Chemosphere</i> , 2017, 181, 675-681.	8.2	34
34	Protein: Polysaccharide ratio in exopolymeric substances controlling the surface tension of seawater in the presence or absence of surrogate Macondo oil with and without Corexit. <i>Marine Chemistry</i> , 2018, 206, 84-92.	2.3	33
35	Force field measurements within the exclusion zone of water. <i>Journal of Biological Physics</i> , 2012, 38, 113-120.	1.5	31
36	Nicotine alters mucin rheological properties. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2014, 307, L149-L157.	2.9	27

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37	The effects of sunlight on the composition of exopolymeric substances and subsequent aggregate formation during oil spills. <i>Marine Chemistry</i> , 2018, 203, 49-54.	2.3	27
38	The role of microbially-mediated exopolymeric substances (EPS) in regulating Macondo oil transport in a mesocosm experiment. <i>Marine Chemistry</i> , 2018, 206, 52-61.	2.3	26
39	Protein to carbohydrate (P/C) ratio changes in microbial extracellular polymeric substances induced by oil and Corexit. <i>Marine Chemistry</i> , 2020, 223, 103789.	2.3	26
40	Sunlight induced aggregation of dissolved organic matter: Role of proteins in linking organic carbon and nitrogen cycling in seawater. <i>Science of the Total Environment</i> , 2019, 654, 872-877.	8.0	25
41	Decreased sedimentation efficiency of petro- and non-petro-carbon caused by a dispersant for Macondo surrogate oil in a mesocosm simulating a coastal microbial community. <i>Marine Chemistry</i> , 2018, 206, 34-43.	2.3	24
42	Ultrafine titanium dioxide nanoparticles induce cell death in human bronchial epithelial cells. <i>Journal of Experimental Nanoscience</i> , 2008, 3, 171-183.	2.4	23
43	Comparison of microgels, extracellular polymeric substances (EPS) and transparent exopolymeric particles (TEP) determined in seawater with and without oil. <i>Marine Chemistry</i> , 2019, 215, 103667.	2.3	23
44	Impact of exposure of crude oil and dispersant (Corexit) on aggregation of extracellular polymeric substances. <i>Science of the Total Environment</i> , 2019, 657, 1535-1542.	8.0	22
45	Carbonaceous particles reduce marine microgel formation. <i>Scientific Reports</i> , 2014, 4, 5856.	3.3	21
46	From Nano-Gels to Marine Snow: A Synthesis of Gel Formation Processes and Modeling Efforts Involved with Particle Flux in the Ocean. <i>Gels</i> , 2021, 7, 114.	4.5	21
47	Development of a fluorescence quenching assay to measure the fraction of organic carbon present in self-assembled gels in seawater. <i>Marine Chemistry</i> , 2007, 106, 456-462.	2.3	19
48	Tracing the source and fate of biopolymers in seawater: application of an immunological technique. <i>Marine Chemistry</i> , 2003, 83, 89-99.	2.3	18
49	Functionalized carboxyl nanoparticles enhance mucus dispersion and hydration. <i>Scientific Reports</i> , 2012, 2, 211.	3.3	18
50	Activated charcoal composite biomaterial promotes human embryonic stem cell differentiation toward neuronal lineage. <i>Journal of Biomedical Materials Research - Part A</i> , 2012, 100A, 2006-2017.	4.0	18
51	Oscillations of pH inside the Secretory Granule Control the Gain of Ca ²⁺ Release for Signal Transduction in Goblet Cell Exocytosis. <i>Novartis Foundation Symposium</i> , 2008, , 132-149.	1.1	17
52	Ocean WarmingâledquoAcidification Synergism Undermines Dissolved Organic Matter Assembly. <i>PLoS ONE</i> , 2015, 10, e0118300.	2.5	17
53	Graphene-induced apoptosis in lung epithelial cells through EGFR. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	1.9	17
54	Stickiness of extracellular polymeric substances on different surfaces via magnetic tweezers. <i>Science of the Total Environment</i> , 2021, 757, 143766.	8.0	16

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55	Reduction in the exchange of coastal dissolved organic matter and microgels by inputs of extra riverine organic matter. <i>Water Research</i> , 2018, 131, 161-166.	11.3	15
56	CeO ₂ nanoparticles attenuate airway mucus secretion induced by TiO ₂ nanoparticles. <i>Science of the Total Environment</i> , 2018, 631-632, 262-269.	8.0	15
57	The interplay of extracellular polymeric substances and oil/Corexit to affect the petroleum incorporation into sinking marine oil snow in four mesocosms. <i>Science of the Total Environment</i> , 2019, 693, 133626.	8.0	15
58	Mechanisms of signal transduction in photo-stimulated secretion in <i>Phaeocystis globosa</i> . <i>FEBS Letters</i> , 2006, 580, 2201-2206.	2.8	13
59	Accelerated Neuronal Differentiation Toward Motor Neuron Lineage from Human Embryonic Stem Cell Line (H9). <i>Tissue Engineering - Part C: Methods</i> , 2015, 21, 242-252.	2.1	13
60	Marine Gel Interactions with Hydrophilic and Hydrophobic Pollutants. <i>Gels</i> , 2021, 7, 83.	4.5	13
61	Corexit, oil and marine microgels. <i>Marine Pollution Bulletin</i> , 2017, 122, 376-378.	5.0	12
62	A real-time mirror-LAPS mini system for dynamic chemical imaging and cell acidification monitoring. <i>Sensors and Actuators B: Chemical</i> , 2021, 341, 130003.	7.8	11
63	Self-assembled Camptothecin derivatives " Curcuminoids conjugate for combinatorial chemo-photodynamic therapy to enhance anti-tumor efficacy. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2021, 215, 112124.	3.8	10
64	K ⁺ -induced ion-exchanges trigger trypsin activation in pancreas acinar zymogen granules. <i>Archives of Biochemistry and Biophysics</i> , 2007, 459, 256-263.	3.0	9
65	Marine microplastics in the surface waters of "Kuroshio. <i>Marine Pollution Bulletin</i> , 2021, 172, 112808.	5.0	9
66	Ethanol augments elevated-[Ca ²⁺] _i induced trypsin activation in pancreatic acinar zymogen granules. <i>Biochemical and Biophysical Research Communications</i> , 2006, 350, 593-597.	2.1	8
67	Oscillations of pH inside the secretory granule control the gain of Ca ²⁺ release for signal transduction in goblet cell exocytosis. <i>Novartis Foundation Symposium</i> , 2002, 248, 132-41; discussion 141-9, 277-82.	1.1	8
68	Photo-oxidation of proteins facilitates the preservation of high molecular weight dissolved organic nitrogen in the ocean. <i>Marine Chemistry</i> , 2021, 229, 103907.	2.3	7
69	Strategies for protein-based nanofabrication: Ni ²⁺ -NTA as a chemical mask to control biologically imposed symmetry. <i>Chemistry and Biology</i> , 1998, 5, 689-697.	6.0	6
70	High-throughput label-free microcontact printing graphene-based biosensor for valley fever. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 170, 219-223.	5.0	6
71	Perovskite Nanoparticles Toxicity Study on Airway Epithelial Cells. <i>Nanoscale Research Letters</i> , 2019, 14, 14.	5.7	6
72	The Solute-Exclusion Zone: A Promising Application for Microfluidics. <i>Entropy</i> , 2015, 17, 1466-1476.	2.2	4

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73	The rÃ1es of plankton and neuston microbial organic matter in climate regulation. Journal of Plankton Research, 2021, 43, 801-821.	1.8	4
74	Modeling Ca-Polyanion Crosslinking in Secretory Networks. Assessment of Charge Density and Bond Affinity in Polyanionic Secretory Networks. Macromolecular Symposia, 2005, 227, 89-96.	0.7	2
75	Silk-carbon nanotube composite for stem cell neuronal differentiation. , 2011, , .		2
76	Determine the quality of human embryonic stem colonies with laser light scattering patterns. Biological Procedures Online, 2013, 15, 2.	2.9	2
77	Effects of Rock Dust Particles on Airway Mucus Viscosity. Biotechnology and Bioprocess Engineering, 2021, 26, 427-434.	2.6	2
78	Efficient Nonviral Stable Transgenesis Mediated by Retroviral Integrase. Molecular Therapy - Methods and Clinical Development, 2020, 17, 1061-1070.	4.1	1
79	Aggregation and Degradation of Dispersants and Oil by Microbial Exopolymers (ADDOMEx): Toward a Synthesis of Processes and Pathways of Marine Oil Snow Formation in Determining the Fate of Hydrocarbons. Frontiers in Marine Science, 2021, 8, .	2.5	1
80	Crude oil and particulate fluxes including marine oil snow sedimentation and flocculant accumulation: Deepwater Horizon oil spill study. International Oil Spill Conference Proceedings, 2021, 2021, .	0.1	1
81	</>A Special Section on</> The Role of Nanotechnology for Sustainable Energy and Environment. Journal of Nanoscience and Nanotechnology, 2016, 16, 4253-4255.	0.9	0
82	C3A Epithelium Cells Directly Cultured on High-Dielectric Constant Material for Light-Addressable Potentiometric Sensor. Proceedings (mdpi), 2018, 2, 1021.	0.2	0
83	A Multi-Well Thin-Si LAPS and All-in-One Readout System for Ion Activity Monitor of Epithelium Cells. Proceedings (mdpi), 2018, 2, .	0.2	0
84	chapter 8 Ocean WarmingâledquoAcidification Synergism Undermines Dissolved Organic Matter Assembly. , 2017, , 189-206.		0
85	High energy photons excited photodynamic cancer therapy in vitro. , 2018, , .		0