Hyunjung Kim

List of Publications by Year
in descending order

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Version: 2024-02-01

132 papers	4,749 citations	76294 40 h-index	128225 60 g-index
132 all docs	132 docs citations	132 times ranked	4052 citing authors

#	Article	IF	Citations
1	Effects of inorganic ions and natural organic matter on the aggregation of nanoplastics. Chemosphere, 2018, 197, 142-151.	4.2	174
2	Transport behaviors of plastic particles in saturated quartz sand without and with biochar/Fe3O4-biochar amendment. Water Research, 2020, 169, 115284.	5.3	137
3	Processable high internal phase Pickering emulsions using depletion attraction. Nature Communications, 2017, 8, 14305.	5.8	127
4	The dissolution and passivation mechanism of chalcopyrite in bioleaching: An overview. Minerals Engineering, 2019, 136, 140-154.	1.8	124
5	Millimeter-sized spherical ion-sieve foams with hierarchical pore structure for recovery of lithium from seawater. Chemical Engineering Journal, 2012, 210, 482-489.	6.6	119
6	Influence of Clay Particles on the Transport and Retention of Titanium Dioxide Nanoparticles in Quartz Sand. Environmental Science & Technology, 2014, 48, 7323-7332.	4.6	112
7	Transport and deposition of ZnO nanoparticles in saturated porous media. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 401, 29-37.	2.3	109
8	Cotransport and Deposition of Iron Oxides with Different-Sized Plastic Particles in Saturated Quartz Sand. Environmental Science & Technology, 2019, 53, 3547-3557.	4.6	95
9	Contributions of Nanoscale Roughness to Anomalous Colloid Retention and Stability Behavior. Langmuir, 2017, 33, 10094-10105.	1.6	94
10	Amine-impregnated millimeter-sized spherical silica foams with hierarchical mesoporousâ€“macroporous structure for CO2 capture. Chemical Engineering Journal, 2015, 259, 653-662.	6.6	91
11	Aggregation and dissolution of ZnO nanoparticles synthesized by different methods: Influence of ionic strength and humic acid. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 451, 7-15.	2.3	85
12	Influence of physicochemical surface properties on the adhesion of bacteria onto four types of plastics. Science of the Total Environment, 2019, 671, 1101-1107.	3.9	85
13	Influence of humic acid on the transport behavior of bacteria in quartz sand. Colloids and Surfaces B: Biointerfaces, 2012, 91, 122-129.	2.5	78
14	Cotransport of Titanium Dioxide and Fullerene Nanoparticles in Saturated Porous Media. Environmental Science & Technology, 2013, 47, 5703-5710.	4.6	78
15	Transport and retention behaviors of titanium dioxide nanoparticles in iron oxide-coated quartz sand: Effects of pH, ionic strength, and humic acid. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 454, 119-127.	2.3	76
16	Flotation behaviour of malachite in mono- and di-valent salt solutions using sodium oleate as a collector. International Journal of Mineral Processing, 2016, 146, 38-45.	2.6	74
17	Modeling colloid and microorganism transport and release with transients in solution ionic strength. Water Resources Research, 2012, 48, .	1.7	73
18	Influence of natural organic matter on the transport and deposition of zinc oxide nanoparticles in saturated porous media. Journal of Colloid and Interface Science, 2012, 386, 34-43.	5.0	72

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19	Transport, retention, and long-term release behavior of ZnO nanoparticle aggregates in saturated quartz sand: Role of solution pH and biofilm coating. Water Research, 2016, 90, 247-257.	5.3	72
20	Modeling Microorganism Transport and Survival in the Subsurface. Journal of Environmental Quality, 2014, 43, 421-440.	1.0	71
21	Control of pore size in ceramic foams: Influence of surfactant concentration. Materials Chemistry and Physics, 2009, 113, 441-444.	2.0	67
22	Transport and Retention of Fullerene Nanoparticles in Natural Soils. Journal of Environmental Quality, 2010, 39, 1925-1933.	1.0	65
23	Bioleaching of highly concentrated arsenic mine tailings by Acidithiobacillus ferrooxidans. Separation and Purification Technology, 2014, 133, 291-296.	3.9	64
24	Influence of excess sulfide ions on the malachite-bubble interaction in the presence of thiol-collector. Separation and Purification Technology, 2016, 168, 1-7.	3.9	64
25	Initial transport and retention behaviors of ZnO nanoparticles in quartz sand porous media coated with Escherichia coli biofilm. Environmental Pollution, 2013, 174, 38-49.	3.7	63
26	Implications of Cation Exchange on Clay Release and Colloidâ€Facilitated Transport in Porous Media. Journal of Environmental Quality, 2010, 39, 2040-2046.	1.0	60
27	Extraction of nickel and cobalt from a laterite ore using the carbothermic reduction roasting-ammoniacal leaching process. Separation and Purification Technology, 2020, 232, 115971.	3.9	60
28	Influence of graphene oxide on the transport and deposition behaviors of colloids in saturated porous media. Environmental Pollution, 2017, 225, 141-149.	3.7	56
29	Influence of Bentonite Particles on Representative Gram Negative and Gram Positive Bacterial Deposition in Porous Media. Environmental Science & Technology, 2012, 46, 11627-11634.	4.6	51
30	Bioleaching of arsenic from highly contaminated mine tailings using Acidithiobacillus thiooxidans. Journal of Environmental Management, 2015, 147, 124-131.	3.8	50
31	Bioflotation of malachite using different growth phases of Rhodococcus opacus: Effect of bacterial shape on detachment by shear flow. International Journal of Mineral Processing, 2015, 143, 98-104.	2.6	47
32	Circular bioeconomy and environmental benignness through microbial recycling of e-waste: A case study on copper and gold restoration. Waste Management, 2021, 121, 175-185.	3.7	46
33	Experiences and Future Challenges of Bioleaching Research in South Korea. Minerals (Basel,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	0.8	45
34	Hydrometallurgical recycling of palladium and platinum from exhausted diesel oxidation catalysts. Separation and Purification Technology, 2020, 248, 117029.	3.9	45
35	Leaching of exhausted <scp>LNCM</scp> cathode batteries in ascorbic acid lixiviant: a green recycling approach, reaction kinetics and process mechanism. Journal of Chemical Technology and Biotechnology, 2020, 95, 2286-2294.	1.6	44
36	Adaptation of a mixed culture of acidophiles for a tank biooxidation of refractory gold concentrates containing a high concentration of arsenic. Journal of Bioscience and Bioengineering, 2016, 121, 536-542.	1.1	43

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37	Impact of total organic carbon and specific surface area on the adsorption capacity in Horn River shale. Journal of Petroleum Science and Engineering, 2017, 149, 331-339.	2.1	43
38	Influence of Ti doping level on hydrogen adsorption of mesoporous Ti-SBA-15 materials prepared by direct synthesis. International Journal of Hydrogen Energy, 2012, 37, 14240-14247.	3.8	42
39	Cotransport of multi-walled carbon nanotubes and titanium dioxide nanoparticles in saturated porous media. Environmental Pollution, 2014, 195, 31-38.	3.7	42
40	Stability of carboxyl-functionalized carbon black nanoparticles: the role of solution chemistry and humic acid. Environmental Science: Nano, 2017, 4, 800-810.	2.2	42
41	Biotechnological recycling of critical metals from waste printed circuit boards. Journal of Chemical Technology and Biotechnology, 2020, 95, 2796-2810.	1.6	42
42	The role of cupric ions in the oxidative dissolution process of marmatite: A dependence on Cu2+ concentration. Science of the Total Environment, 2019, 675, 213-223.	3.9	40
43	Porous Ca-based bead sorbents for simultaneous removal of SO2, fine particulate matters, and heavy metals from pilot plant sewage sludge incineration. Journal of Hazardous Materials, 2015, 283, 44-52.	6.5	39
44	Analysis of stability behavior of carbon black nanoparticles in ecotoxicological media: Hydrophobic and steric effects. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 554, 306-316.	2.3	38
45	Flotation separation of quartz from apatite and surface forces in bubbleâ€“particle interactions: Role of pH and cationic amine collector contents. Journal of Industrial and Engineering Chemistry, 2019, 70, 107-115.	2.9	38
46	Influence of Perfluorooctanoic Acid on the Transport and Deposition Behaviors of Bacteria in Quartz Sand. Environmental Science & Technology, 2016, 50, 2381-2388.	4.6	37
47	Influence of nutrient conditions on the transport of bacteria in saturated porous media. Colloids and Surfaces B: Biointerfaces, 2013, 102, 752-758.	2.5	36
48	Removal of Cadmium and Lead from Aqueous Solution by Hydroxyapatite/Chitosan Hybrid Fibrous Sorbent: Kinetics and Equilibrium Studies. Journal of Chemistry, 2015, 2015, 1-12.	0.9	34
49	Influence of bacterial adhesion on copper extraction from printed circuit boards. Separation and Purification Technology, 2015, 143, 169-176.	3.9	34
50	Feasibility of bench-scale selective bioflotation of copper oxide minerals using Rhodococcus opacus. Hydrometallurgy, 2017, 168, 94-102.	1.8	34
51	Biotechnological recycling of hazardous waste PCBs using Sulfobacillus thermosulfidooxidans through pretreatment of toxicant metals: Process optimization and kinetic studies. Chemosphere, 2022, 286, 131978.	4.2	34
52	Different electrically charged proteins result in diverse bacterial transport behaviors in porous media. Water Research, 2018, 143, 425-435.	5.3	33
53	Gold recovery from secondary waste of PCBs by electro-Cl2 leaching in brine solution and solvo-chemical separation with tri-butyl phosphate. Journal of Cleaner Production, 2021, 295, 126389.	4.6	33
54	Deposition kinetics of MS2 bacteriophages on clay mineral surfaces. Colloids and Surfaces B: Biointerfaces, 2012, 92, 340-347.	2.5	32

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55	Effect of Carbon Nanotubes on the Transport and Retention of Bacteria in Saturated Porous Media. Environmental Science & Technology, 2013, 47, 11537-11544.	4.6	32
56	Influence of Bisphenol A on the transport and deposition behaviors of bacteria in quartz sand. Water Research, 2017, 121, 1-10.	5.3	32
57	Influence of Nano- and Microplastic Particles on the Transport and Deposition Behaviors of Bacteria in Quartz Sand. Environmental Science & Technology, 2018, 52, 11555-11563.	4.6	32
58	Comparison of Types and Amounts of Nanoscale Heterogeneity on Bacteria Retention. Frontiers in Environmental Science, 2018, 6, .	1.5	32
59	Particleâ€“bubble interaction energies for particles with physical and chemical heterogeneities. Minerals Engineering, 2020, 155, 106472.	1.8	32
60	Intensified bioleaching of chalcopyrite concentrate using adapted mesophilic culture in continuous stirred tank reactors. Bioresource Technology, 2020, 307, 123181.	4.8	32
61	Electrostatically Controlled Enrichment of Lepidolite via Flotation. Materials Transactions, 2012, 53, 2191-2194.	0.4	31
62	Arsenic removal from contaminated soils for recycling via oil agglomerate flotation. Chemical Engineering Journal, 2016, 285, 207-217.	6.6	31
63	Influence of natural organic matter on the deposition kinetics of extracellular polymeric substances (EPS) on silica. Colloids and Surfaces B: Biointerfaces, 2011, 87, 151-158.	2.5	29
64	Extraction equilibria of cerium(IV) with Cyanex 923 followed by precipitation kinetics of cerium(III) oxalate from sulfate solution. Separation and Purification Technology, 2021, 254, 117634.	3.9	29
65	O2-enriched microbial activity with pH-sensitive solvo-chemical and electro-chlorination strategy to reclaim critical metals from the hazardous waste printed circuit boards. Journal of Hazardous Materials, 2021, 416, 125769.	6.5	29
66	Influence of gravity on transport and retention of representative engineered nanoparticles in quartz sand. Journal of Contaminant Hydrology, 2015, 181, 153-160.	1.6	28
67	Electrospun hydrogen manganese oxide nanofibers as effective adsorbents for Li+ recovery from seawater. Journal of Industrial and Engineering Chemistry, 2020, 81, 115-123.	2.9	27
68	Shape and orientation of bare silica particles influence their deposition under intermediate ionic strength: A study with QCMâ€“D and DLVO theory. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 599, 124921.	2.3	26
69	Mobilization of platinum and palladium from exhausted catalytic converters using bio-cyanide and an ionic-liquid as mass transport carriers. Green Chemistry, 2022, 24, 5204-5218.	4.6	26
70	Effect of bacteria on the transport and deposition of multi-walled carbon nanotubes in saturated porous media. Environmental Pollution, 2016, 213, 895-903.	3.7	25
71	Bubbleâ€”particle interactions with hydrodynamics, XDLVO theory, and surface roughness for flotation in an agitated tank using CFD simulations. Minerals Engineering, 2020, 152, 106368.	1.8	25
72	Cleaner production of rare earth elements from phosphorus-bearing sulfuric acid solution of vein deposit monazite. Journal of Cleaner Production, 2021, 278, 123435.	4.6	25

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73	Influence of silicate on the transport of bacteria in quartz sand and iron mineral-coated sand. Colloids and Surfaces B: Biointerfaces, 2014, 123, 995-1002.	2.5	24
74	Relationship between Synthesis Conditions and Photocatalytic Activity of Nanocrystalline TiO₂. Journal of Nanomaterials, 2012, 2012, 1-10.	1.5	23
75	Bioleaching of arsenopyrite from Janggun mine tailings (South Korea) using an adapted mixed mesophilic culture. Hydrometallurgy, 2018, 181, 21-28.	1.8	23
76	Malachite flotation using carbon black nanoparticles as collectors: Negative impact of suspended nanoparticle aggregates. Minerals Engineering, 2019, 137, 19-26.	1.8	23
77	Liquidâ€“Liquid Extraction and Reductive Stripping of Chromium to Valorize Industrial Effluent. Jom, 2020, 72, 839-846.	0.9	23
78	Preparation of dip-coated TiO2 photocatalyst on ceramic foam pellets. Journal of Materials Science, 2006, 41, 6150-6153.	1.7	22
79	Causes and implications of colloid and microorganism retention hysteresis. Journal of Contaminant Hydrology, 2012, 138-139, 83-92.	1.6	22
80	Flotation Behavior of Arsenopyrite and Pyrite, and Their Selective Separation. Materials Transactions, 2015, 56, 435-440.	0.4	21
81	Continuous bioleaching of arsenopyrite from mine tailings using an adapted mesophilic microbial culture. Hydrometallurgy, 2019, 187, 187-194.	1.8	21
82	Prediction of grade and recovery in flotation from physicochemical and operational aspects using machine learning models. Minerals Engineering, 2022, 183, 107627.	1.8	21
83	Synthesis and characterization of orthorhombic-MoO3 nanofibers with controlled morphology and diameter. Journal of Industrial and Engineering Chemistry, 2018, 62, 231-238.	2.9	20
84	Interaction energies for hollow and solid cylinders: Role of aspect ratio and particle orientation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 580, 123781.	2.3	20
85	Colloid Interaction Energies for Surfaces with Steric Effects and Incompressible and/or Compressible Roughness. Langmuir, 2021, 37, 1501-1510.	1.6	20
86	Synthesis and characterization of high-surface-area millimeter-sized silica beads with hierarchical multi-modal pore structure by the addition of agar. Materials Characterization, 2014, 90, 31-39.	1.9	19
87	Hydrometallurgical Recycling of Rare Earth Metalâ€“Cerium from Bio-processed Residual Waste of Exhausted Automobile Catalysts. Jom, 2021, 73, 19-26.	0.9	19
88	Separation of platinum group metals from model chloride solution using phosphonium-based ionic liquid. Separation and Purification Technology, 2021, 278, 119577.	3.9	19
89	Arsenic Removal from Mine Tailings for Recycling via Flotation. Materials Transactions, 2013, 54, 2291-2296.	0.4	18
90	Pore Structure Characterization of Shale Using Gas Physisorption: Effect of Chemical Compositions. Minerals (Basel, Switzerland), 2017, 7, 66.	0.8	18

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91	Preparation of Sizable and Uniformâ€Sized Spherical Ceramic Foams: Dropâ€inâ€Oil and Agar Gelation. Journal of the American Ceramic Society, 2011, 94, 2742-2745.	1.9	17
92	Fabrication and characterization of macroporous flyash ceramic pellets. Materials Characterization, 2011, 62, 817-824.	1.9	17
93	Relationship between Surface Characteristics and Floatability in Representative Sulfide Minerals: Role of Surface Oxidation. Materials Transactions, 2017, 58, 1069-1075.	0.4	16
94	Control of pore and window size of ceramic foams with tri-modal pore structure: Influence of agar concentration. Materials Letters, 2013, 110, 256-259.	1.3	15
95	Transport of carboxyl-functionalized carbon black nanoparticles in saturated porous media: Column experiments and model analyses. Journal of Contaminant Hydrology, 2015, 177-178, 194-205.	1.6	15
96	Analysis of the effects of natural organic matter in zinc beneficiation. Journal of Cleaner Production, 2017, 168, 814-822.	4.6	15
97	Inorganic nanofiber as a promising sorbent for lithium recovery. Separation and Purification Technology, 2020, 242, 116757.	3.9	15
98	Evaluation of permeable pore sizes of macroporous materials using a modified gas permeation method. Materials Characterization, 2009, 60, 14-20.	1.9	14
99	Cationic collector conformations on an oxide mineral interface: Roles of pH, ionic strength, and ion valence. Minerals Engineering, 2020, 150, 106277.	1.8	14
100	Influence of solution chemistry on the deposition and detachment kinetics of RNA on silica surfaces. Colloids and Surfaces B: Biointerfaces, 2011, 82, 443-449.	2.5	13
101	Influence of sulfate on the transport of bacteria in quartz sand. Colloids and Surfaces B: Biointerfaces, 2013, 110, 443-449.	2.5	13
102	Pore Characteristics and Hydrothermal Stability of Mesoporous Silica: Role of Oleic Acid. Journal of Nanomaterials, 2014, 2014, 1-8.	1.5	13
103	Surface Modification of Calcium Carbonate with Cationic Polymer and Their Dispersibility. Materials Transactions, 2012, 53, 2195-2199.	0.4	12
104	Biodegradation mechanism of arsenopyrite mine tailing with Acidithiobacillus ferrooxidans and influence of ferric supplements. International Biodeterioration and Biodegradation, 2020, 153, 105042.	1.9	11
105	Characterization of stone powder sludge foams and their application to wastewater treatment: Role of pore connectivity. Materials Chemistry and Physics, 2012, 134, 26-30.	2.0	10
106	Surface Charge Regulation of Carboxyl Terminated Polystyrene Latex Particles and Their Interactions at the Oil/Water Interface. Langmuir, 2014, 30, 12164-12170.	1.6	10
107	Role of Chain Length and Type on the Adsorption Behavior of Cationic Surfactants and the Silica Floatability. Materials Transactions, 2014, 55, 1344-1349.	0.4	10
108	Chalcopyrite Bioleaching Using Adapted Mesophilic Microorganisms: Effects of Temperature, Pulp Density, and Initial Ferrous Concentrations. Materials Transactions, 2018, 59, 1860-1866.	0.4	10

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109	Application of Depletion Attraction in Mineral Flotation: I. Theory. Minerals (Basel, Switzerland), 2018, 8, 451.	0.8	10
110	Application of Depletion Attraction in Mineral Flotation: II. Effects of Depletant Concentration. Minerals (Basel, Switzerland), 2018, 8, 450.	0.8	10
111	Fungal bioextraction of iron from kaolin. Chemical Papers, 2019, 73, 3025-3029.	1.0	9
112	Mobilisation of hazardous elements from arsenic-rich mine drainage ochres by three Aspergillus species. Journal of Hazardous Materials, 2021, 409, 124938.	6.5	8
113	Column Bioleaching of Arsenic from Mine Tailings Using a Mixed Acidophilic Culture: A Technical Feasibility Assessment. Journal of the Korean Institute of Resources Recycling, 2015, 24, 69-77.	0.4	8
114	Pore characteristics of Ca(OH)2 foams: Impact of surfactantâ€“mineral interaction. Materials Chemistry and Physics, 2010, 124, 510-515.	2.0	7
115	Transport of citrate-coated silver nanoparticles in saturated porous media. Environmental Geochemistry and Health, 2020, 42, 1753-1766.	1.8	7
116	Influence of sulfate and phosphate on the deposition of plasmid DNA on silica and alumina-coated surfaces. Colloids and Surfaces B: Biointerfaces, 2014, 118, 83-89.	2.5	6
117	Aspergillus niger Decreases Bioavailability of Arsenic(V) via Biotransformation of Manganese Oxide into Biogenic Oxalate Minerals. Journal of Fungi (Basel, Switzerland), 2020, 6, 270.	1.5	6
118	Roles of solution chemistry and reagentâ€“reagent interaction on carboxymethylcellulose adsorption onto graphite and implications on its floatability. Minerals Engineering, 2021, 167, 106873.	1.8	6
119	Intensive Leaching of Red Phosphor Rare Earth Metals from Waste Fluorescent Lamp: Parametric Optimization and Kinetic Studies. Jom, 2022, 74, 1054-1060.	0.9	6
120	Bacterial Inactivation by Ultrasonic Waves: Role of Ionic Strength, Humic Acid, and Temperature. Water, Air, and Soil Pollution, 2015, 226, 1.	1.1	5
121	Bioleaching of Manganese Oxides at Different Oxidation States by Filamentous Fungus Aspergillus niger. Journal of Fungi (Basel, Switzerland), 2021, 7, 808.	1.5	5
122	Fungal Mobilization of Selenium in the Presence of Hausmannite and Ferric Oxyhydroxides. Journal of Fungi (Basel, Switzerland), 2021, 7, 810.	1.5	5
123	A study of nanofluid stability in lowâ€“salinity water to enhance oil recovery: An extended physicochemical approach. Journal of Petroleum Science and Engineering, 2022, 215, 110608.	2.1	5
124	TiO₂-Coated Silica Foams by <I>In-Situ</I> Sol-Gel Reaction. Materials Transactions, 2011, 52, 2245-2249.	0.4	4
125	Synthesis and Characterization of Mesoporous Silica from Anorthite-Clay Mineral: Role of Mechanical Activation. Materials Transactions, 2014, 55, 1895-1899.	0.4	4
126	Bioleaching for the Removal of Arsenic from Mine Tailings by Psychrotolerant and Mesophilic Microbes at Markedly Continental Climate Temperatures. Minerals (Basel, Switzerland), 2020, 10, 972.	0.8	4

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127	Assessment of Aspergillus niger Strainâ€™s Suitability for Arsenate-Contaminated Water Treatment and Adsorbent Recycling via Bioextraction in a Laboratory-Scale Experiment. Microorganisms, 2020, 8, 1668.	1.6	4
128	Selective Removal of Arsenic Compounds from the Contaminated Paddy Soil in China Using Froth Flotation Technique. Daehan Hwan'gyeong Gonghag Hoeji, 2016, 38, 343-352.	0.4	1
129	Perspectives on the concepts of futuristic mineral concentration using microscopic robots. Geosystem Engineering, 0, , 1-7.	0.7	1
130	Mobility of Carbon Nanomaterials in Soil Media. Daehan Hwan'gyeong Gonghag Hoeji, 2014, 36, 588-595.	0.4	0
131	Editorial on Special Issue â€œSurface Chemistry in Mineral Processing and Extractive Metallurgyâ€. Minerals (Basel, Switzerland), 2021, 11, 13.	0.8	0
132	Chemical Kinetics of Nanoparticles in the Emulsion State during Phase-Transfer Synthesis. Journal of Physical Chemistry C, 2021, 125, 26157-26166.	1.5	0