

Astaxanthin: Sources, Extraction, Stability, Biological Activities and Applications—A Review

Marine Drugs

12, 128-152

DOI: [10.3390/md12010128](https://doi.org/10.3390/md12010128)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Safety of an Astaxanthin-Rich Haematococcus pluvialis Algal Extract: A Randomized Clinical Trial. <i>Journal of Medicinal Food</i> , 2003, 6, 51-56.	1.5	147
2	Astaxanthine Secured Apoptotic Death of PC12 Cells Induced by β -Amyloid Peptide 25-35: Its Molecular Action Targets. <i>Journal of Medicinal Food</i> , 2010, 13, 548-556.	1.5	69
3	Intracellular Redox State as Target for Anti-Influenza Therapy: Are Antioxidants Always Effective?. <i>Current Topics in Medicinal Chemistry</i> , 2014, 14, 2529-2541.	2.1	42
4	A sub-chronic toxicity evaluation of a natural astaxanthin-rich carotenoid extract of <i>Paracoccus carotinifaciens</i> in rats. <i>Toxicology Reports</i> , 2014, 1, 582-588.	3.3	58
5	Bioactive Compounds from Macroalgae in the New Millennium: Implications for Neurodegenerative Diseases. <i>Marine Drugs</i> , 2014, 12, 4934-4972.	4.6	123
6	Green genes: bioinformatics and systems-biology innovations drive algal biotechnology. <i>Trends in Biotechnology</i> , 2014, 32, 617-626.	9.3	53
7	Functional ingredients from microalgae. <i>Food and Function</i> , 2014, 5, 1669-1685.	4.6	172
8	<i>Chlorella zofingiensis</i> as an Alternative Microalgal Producer of Astaxanthin: Biology and Industrial Potential. <i>Marine Drugs</i> , 2014, 12, 3487-3515.	4.6	239
9	Astaxanthin prevents and reverses diet-induced insulin resistance and steatohepatitis in mice: A comparison with vitamin E. <i>Scientific Reports</i> , 2015, 5, 17192.	3.3	183
10	Mussel processing wastewater: a low-cost substrate for the production of astaxanthin by <i>Xanthophyllomyces dendrorhous</i> . <i>Microbial Cell Factories</i> , 2015, 14, 177.	4.0	33
11	Carotenoids from Haloarchaea and Their Potential in Biotechnology. <i>Marine Drugs</i> , 2015, 13, 5508-5532.	4.6	129
12	Heavy Metals and Human Health: Mechanistic Insight into Toxicity and Counter Defense System of Antioxidants. <i>International Journal of Molecular Sciences</i> , 2015, 16, 29592-29630.	4.1	796
13	Astaxanthin Pretreatment Attenuates Hepatic Ischemia Reperfusion-Induced Apoptosis and Autophagy via the ROS/MAPK Pathway in Mice. <i>Marine Drugs</i> , 2015, 13, 3368-3387.	4.6	108
14	Characterization of Shrimp Oil from <i>Pandalus borealis</i> by High Performance Liquid Chromatography and High Resolution Mass Spectrometry. <i>Marine Drugs</i> , 2015, 13, 3849-3876.	4.6	29
15	Astaxanthin Inhibits Proliferation and Induces Apoptosis of Human Hepatocellular Carcinoma Cells via Inhibition of $\text{NF-}\kappa\text{B}$ p65 and Wnt/ β -Catenin in Vitro. <i>Marine Drugs</i> , 2015, 13, 6064-6081.	4.6	61
16	Astaxanthin as a Potential Neuroprotective Agent for Neurological Diseases. <i>Marine Drugs</i> , 2015, 13, 5750-5766.	4.6	144
17	Microalgae as a Feedstock for Biofuel Precursors and Value-Added Products: Green Fuels and Golden Opportunities. <i>BioResources</i> , 2015, 11, .	1.0	20
18	In Vivo Effects of Free Form Astaxanthin Powder on Anti-Oxidation and Lipid Metabolism with High-Cholesterol Diet. <i>PLoS ONE</i> , 2015, 10, e0134733.	2.5	18

#	ARTICLE	IF	CITATIONS
19	Modulation of Metabolic Detoxification Pathways Using Foods and Food-Derived Components: A Scientific Review with Clinical Application. <i>Journal of Nutrition and Metabolism</i> , 2015, 2015, 1-23.	1.8	141
20	Effect of Thermal Processing on Astaxanthin and Astaxanthin Esters in Pacific White Shrimp <i>Litopenaeus setiferus</i> . <i>Journal of Oleo Science</i> , 2015, 64, 243-253.	1.4	48
21	Anti-inflammatory Effect of Astaxanthin on the Sickness Behavior Induced by Diabetes Mellitus. <i>Cellular and Molecular Neurobiology</i> , 2015, 35, 1027-1037.	3.3	42
22	Cambial meristematic cells: a platform for the production of plant natural products. <i>New Biotechnology</i> , 2015, 32, 581-587.	4.4	38
23	Microalgal Classification. , 2015, , 25-41.		33
24	Astaxanthin prevents pulmonary fibrosis by promoting myofibroblast apoptosis dependent on Drp1-mediated mitochondrial fission. <i>Journal of Cellular and Molecular Medicine</i> , 2015, 19, 2215-2231.	3.6	56
25	Food colour additives of natural origin. , 2015, , 3-34.		36
26	Carotenoids from fruits and vegetables: Chemistry, analysis, occurrence, bioavailability and biological activities. <i>Food Research International</i> , 2015, 76, 735-750.	6.2	531
27	Micellar carriers for the delivery of multiple therapeutic agents. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 135, 291-308.	5.0	78
28	Transplastomic plants for innovations in agriculture. A review. <i>Agronomy for Sustainable Development</i> , 2015, 35, 1391-1430.	5.3	27
29	Application of an optimized electrochemical sensor for monitoring astaxanthin antioxidant properties against lipoperoxidation. <i>New Journal of Chemistry</i> , 2015, 39, 6428-6436.	2.8	7
30	Production of carotenoids by microalgae: achievements and challenges. <i>Photosynthesis Research</i> , 2015, 125, 423-436.	2.9	171
31	Astaxanthin from <i>Haematococcus pluvialis</i> Prevents Oxidative Stress on Human Endothelial Cells without Toxicity. <i>Marine Drugs</i> , 2015, 13, 2857-2874.	4.6	114
32	Innovative Microalgae Pigments as Functional Ingredients in Nutrition. , 2015, , 233-243.		34
33	Microalgal Nutraceuticals. , 2015, , 255-267.		13
34	Evaluation of hepatoprotective and antioxidant activity of astaxanthin and astaxanthin esters from microalga- <i>Haematococcus pluvialis</i> . <i>Journal of Food Science and Technology</i> , 2015, 52, 6703-6710.	2.8	45
35	Protective effect of astaxanthin against multiple organ injury in a rat model of sepsis. <i>Journal of Surgical Research</i> , 2015, 195, 559-567.	1.6	30
36	Biotechnological exploitation of microalgae. <i>Journal of Experimental Botany</i> , 2015, 66, 6975-6990.	4.8	116

#	ARTICLE	IF	CITATIONS
37	Assessment of in-vitro bio accessibility and characterization of spray dried complex of astaxanthin with methylated betacyclodextrin. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2015, 83, 63-75.	1.6	7
38	Carotenoid production and gene expression in an astaxanthin-overproducing <i>Xanthophyllomyces dendrorhous</i> mutant strain. <i>Archives of Microbiology</i> , 2015, 197, 1129-1139.	2.2	20
39	Inhibition of inflammation by astaxanthin alleviates cognition deficits in diabetic mice. <i>Physiology and Behavior</i> , 2015, 151, 412-420.	2.1	78
40	Photosynthetic response to nitrogen starvation and high light in <i>Haematococcus pluvialis</i> . <i>Algal Research</i> , 2015, 12, 170-181.	4.6	82
41	Species diversity in European <i>Haematococcus pluvialis</i> (Chlorophyceae, Volvocales). <i>Phycologia</i> , 2015, 54, 583-598.	1.4	32
42	Biological roles of fungal carotenoids. <i>Current Genetics</i> , 2015, 61, 309-324.	1.7	217
43	HAEMATOCOCCUS PLUVIALIS EXTRACT PROMOTING THE RECOVERY OF MEMORY IMPAIRMENT IN ALZHEIMER'S RATS: ANTI-INFLAMMATORY AND ANTI-APOTOTIC EFFECTS. <i>Asian Journal of Pharmaceutical and Clinical Research</i> , 2016, 9, 171.	0.3	0
44	The Bioavailability of Astaxanthin Is Dependent on Both the Source and the Isomeric Variants of the Molecule. <i>Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca: Food Science and Technology</i> , 2016, 73, 61.	0.1	9
45	Potential Anti-Atherosclerotic Properties of Astaxanthin. <i>Marine Drugs</i> , 2016, 14, 35.	4.6	157
46	Antioxidants: Characterization and Analysis. , 2016, , 221-226.		2
47	Effects of Dietary Inclusion of Astaxanthin on Growth, Muscle Pigmentation and Antioxidant Capacity of Juvenile Rainbow Trout (<i>Oncorhynchus mykiss</i>). <i>Preventive Nutrition and Food Science</i> , 2016, 21, 281-288.	1.6	67
48	<i>Haematococcus</i> : a successful air-dispersed colonist in ephemeral waters is rarely found in phytoplankton communities. <i>Turkish Journal of Botany</i> , 2016, 40, 427-438.	1.2	7
49	<i>In Vitro</i> Effects of Some Botanicals with Anti-Inflammatory and Antitoxic Activity. <i>Journal of Immunology Research</i> , 2016, 2016, 1-11.	2.2	30
50	Plant cell culture strategies for the production of natural products. <i>BMB Reports</i> , 2016, 49, 149-158.	2.4	237
51	Free Radical Scavenging and Cellular Antioxidant Properties of Astaxanthin. <i>International Journal of Molecular Sciences</i> , 2016, 17, 103.	4.1	126
52	Improved Hepatoprotective Effect of Liposome-Encapsulated Astaxanthin in Lipopolysaccharide-Induced Acute Hepatotoxicity. <i>International Journal of Molecular Sciences</i> , 2016, 17, 1128.	4.1	50
53	Micronutrient Antioxidants and Nonalcoholic Fatty Liver Disease. <i>International Journal of Molecular Sciences</i> , 2016, 17, 1379.	4.1	48
54	Effects of Astaxanthin from <i>Litopenaeus Vannamei</i> on Carrageenan-Induced Edema and Pain Behavior in Mice. <i>Molecules</i> , 2016, 21, 382.	3.8	22

#	ARTICLE	IF	CITATIONS
55	Novel Action of Carotenoids on Non-Alcoholic Fatty Liver Disease: Macrophage Polarization and Liver Homeostasis. <i>Nutrients</i> , 2016, 8, 391.	4.1	79
56	Astaxanthin-Producing Green Microalga <i>Haematococcus pluvialis</i> : From Single Cell to High Value Commercial Products. <i>Frontiers in Plant Science</i> , 2016, 7, 531.	3.6	569
57	Preparation of stable microcapsules from disrupted cell of <i>Haematococcus pluvialis</i> by spray drying. <i>International Journal of Food Science and Technology</i> , 2016, 51, 1834-1843.	2.7	14
58	Influence of Storage Conditions on the Stability of Phospholipids-Rich Krill (<i>Euphausia</i>) Tj ETQq1 1 0.784314 rgBT/Overlock 10 Tf 50	2.0	11
59	Electrochemical Oxidation of Astaxanthin on Glassy-carbon Electrode and its Amperometric Determination Using Batch Injection Analysis (BIA). <i>Electroanalysis</i> , 2016, 28, 2143-2148.	2.9	9
60	Production of Peptides with Radical Scavenging Activity and Recovery of Total Carotenoids Using Enzymatic Protein Hydrolysis of Shrimp Waste. <i>Journal of Food Biochemistry</i> , 2016, 40, 517-525.	2.9	12
61	Comparative genomics provides new insights into the diversity, physiology, and sexuality of the only industrially exploited tremellomycete: <i>Phaffia rhodozyma</i> . <i>BMC Genomics</i> , 2016, 17, 901.	2.8	35
62	Screening for improved isoprenoid biosynthesis in microorganisms. <i>Journal of Biotechnology</i> , 2016, 235, 112-120.	3.8	30
63	Transcriptome analysis of <i>Chlorella zofingiensis</i> to identify genes and their expressions involved in astaxanthin and triacylglycerol biosynthesis. <i>Algal Research</i> , 2016, 17, 236-243.	4.6	52
64	Preventive effects of astaxanthin on diethylnitrosamine-induced liver tumorigenesis in C57/BL/6J obese mice. <i>Hepatology Research</i> , 2016, 46, E201-9.	3.4	18
65	Metabolic engineering of astaxanthin biosynthesis in maize endosperm and characterization of a prototype high oil hybrid. <i>Transgenic Research</i> , 2016, 25, 477-489.	2.4	44
66	Cloning and characterization of selenoprotein thioredoxin reductase gene in <i>Haematococcus pluvialis</i> . <i>Algal Research</i> , 2016, 17, 97-104.	4.6	7
67	Stereoisomers of Astaxanthin Inhibit Human Colon Cancer Cell Growth by Inducing G2/M Cell Cycle Arrest and Apoptosis. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 7750-7759.	5.2	42
68	Carotenoids in Nature. <i>Sub-Cellular Biochemistry</i> , 2016, , .	2.4	39
69	Formulation of a fish feed for goldfish with natural astaxanthin extracted from shrimp waste. <i>Chemistry Central Journal</i> , 2016, 10, 44.	2.6	18
70	Carotenoids in Microalgae. <i>Sub-Cellular Biochemistry</i> , 2016, 79, 219-237.	2.4	60
71	The andrologist's contribution to a better life for ageing men: part 2. <i>Andrologia</i> , 2016, 48, 99-110.	2.1	2
73	Engineered maize as a source of astaxanthin: processing and application as fish feed. <i>Transgenic Research</i> , 2016, 25, 785-793.	2.4	20

#	ARTICLE	IF	CITATIONS
74	Î²-1,3/1,6-Glucan-supplemented diets antagonize immune inhibitory effects of hypoxia and enhance the immune response to a model vaccine. <i>Fish and Shellfish Immunology</i> , 2016, 59, 36-45.	3.6	34
75	Astaxanthin alleviates cerebral edema by modulating NKCC1 and AQP4 expression after traumatic brain injury in mice. <i>BMC Neuroscience</i> , 2016, 17, 60.	1.9	52
76	Astaxanthin reduces isoflurane-induced neuroapoptosis via the PI3K/Akt pathway. <i>Molecular Medicine Reports</i> , 2016, 13, 4073-4078.	2.4	18
77	Extreme Marine Environments (Brines, Seeps, and Smokers). , 2016, , 251-282.		4
78	Optimization of astaxanthin pigment bioprocessing by four different yeast species using wheat wastes. <i>Biocatalysis and Agricultural Biotechnology</i> , 2016, 7, 1-6.	3.1	45
79	Nutraceuticals in Hepatic Diseases. , 2016, , 87-99.		16
80	Marine shells: Potential opportunities for extraction of functional and health-promoting materials. <i>Critical Reviews in Environmental Science and Technology</i> , 2016, 46, 1047-1116.	12.8	88
81	Effect of high-pressure compaction on supercritical CO2 extraction of astaxanthin from <i>Haematococcus pluvialis</i> . <i>Journal of Food Engineering</i> , 2016, 189, 123-134.	5.2	17
82	Dynamic modelling of <i>Haematococcus pluvialis</i> photoinduction for astaxanthin production in both attached and suspended photobioreactors. <i>Algal Research</i> , 2016, 13, 69-78.	4.6	52
83	DNA microarray-based experimental strategy for trustworthy expression profiling of the hippocampal genes by astaxanthin supplementation in adult mouse. <i>Genomics Data</i> , 2016, 7, 32-37.	1.3	2
84	Enhancement of astaxanthin production using <i>Haematococcus pluvialis</i> with novel LED wavelength shift strategy. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 6231-6238.	3.6	79
85	Assessment and comparison of in vitro immunoregulatory activity of three astaxanthin stereoisomers. <i>Journal of Ocean University of China</i> , 2016, 15, 283-287.	1.2	20
86	Intensified green production of astaxanthin from <i>Haematococcus pluvialis</i> . <i>Food and Bioproducts Processing</i> , 2016, 99, 1-11.	3.6	47
87	Astaxanthin alleviates oxidative stress insults-related derangements in human vascular endothelial cells exposed to glucose fluctuations. <i>Life Sciences</i> , 2016, 150, 24-31.	4.3	38
88	Algae-Based Bioremediation. , 2016, , 457-493.		10
89	Astaxanthin inhibits inflammation and fibrosis in the liver and adipose tissue of mouse models of diet-induced obesity and nonalcoholic steatohepatitis. <i>Journal of Nutritional Biochemistry</i> , 2017, 43, 27-35.	4.2	80
90	Protective Effect of Astaxanthin on Vocal Fold Injury and Inflammation Due to Vocal Loading: A Clinical Trial. <i>Journal of Voice</i> , 2017, 31, 352-358.	1.5	19
91	Progress in Microbial Carotenoids Production. <i>Indian Journal of Microbiology</i> , 2017, 57, 129-130.	2.7	60

#	ARTICLE	IF	CITATIONS
92	Astaxanthin pretreatment attenuates acetaminophen-induced liver injury in mice. <i>International Immunopharmacology</i> , 2017, 45, 26-33.	3.8	66
93	Rapid and Efficient Conversion of All- <i>E</i> -astaxanthin to 9 <i>Z</i> - and 13 <i>Z</i> -Isomers and Assessment of Their Stability and Antioxidant Activities. <i>Journal of Agricultural and Food Chemistry</i> , 2017, 65, 818-826.	5.2	70
94	Astaxanthin protects against early burn-wound progression in rats by attenuating oxidative stress-induced inflammation and mitochondria-related apoptosis. <i>Scientific Reports</i> , 2017, 7, 41440.	3.3	72
95	Alleviation of metabolic bottleneck by combinatorial engineering enhanced astaxanthin synthesis in <i>Saccharomyces cerevisiae</i> . <i>Enzyme and Microbial Technology</i> , 2017, 100, 28-36.	3.2	77
96	Neuroprotective mechanisms of astaxanthin: a potential therapeutic role in preserving cognitive function in age and neurodegeneration. <i>GeroScience</i> , 2017, 39, 19-32.	4.6	138
97	Metabolic engineering for the microbial production of marine bioactive compounds. <i>Biotechnology Advances</i> , 2017, 35, 1004-1021.	11.7	30
98	Processing of astaxanthin-rich <i>Haematococcus</i> cells for dietary inclusion and optimal pigmentation in Rainbow trout, <i>Oncorhynchus mykiss</i> L.. <i>Aquaculture Nutrition</i> , 2017, 23, 1304-1311.	2.7	17
99	Engineering of β -carotene hydroxylase and ketolase for astaxanthin overproduction in <i>Saccharomyces cerevisiae</i> . <i>Frontiers of Chemical Science and Engineering</i> , 2017, 11, 89-99.	4.4	45
100	Effects of ergothioneine-rich mushroom extracts on lipid oxidation and discoloration in salmon muscle stored at low temperatures. <i>Food Chemistry</i> , 2017, 233, 273-281.	8.2	22
101	Some Promising Microalgal Species for Commercial Applications: A review. <i>Energy Procedia</i> , 2017, 110, 510-517.	1.8	134
102	Neuroprotective effects of astaxanthin in a rat model of spinal cord injury. <i>Behavioural Brain Research</i> , 2017, 329, 104-110.	2.2	46
103	Comparison of solvents for extraction of krill oil from krill meal: Lipid yield, phospholipids content, fatty acids composition and minor components. <i>Food Chemistry</i> , 2017, 233, 434-441.	8.2	89
104	Proteomic analysis of astaxanthin biosynthesis in <i>Xanthophyllomyces dendrorhous</i> in response to low carbon levels. <i>Bioprocess and Biosystems Engineering</i> , 2017, 40, 1091-1100.	3.4	22
105	Astaxanthin stability and color change of krill during subcritical water treatment. <i>Journal of Food Science and Technology</i> , 2017, 54, 3065-3072.	2.8	20
106	On the Atlantic blue crab (<i>Callinectes sapidus</i> Rathbun 1896) in southern European coastal waters: Time to turn a threat into a resource?. <i>Fisheries Research</i> , 2017, 194, 1-8.	1.7	57
107	Next generation nutraceutical from shrimp waste: The convergence of applications with extraction methods. <i>Food Chemistry</i> , 2017, 237, 121-132.	8.2	59
108	Safety assessment of astaxanthin derived from engineered <i>Escherichia coli</i> K-12 using a 13-week repeated dose oral toxicity study and a prenatal developmental toxicity study in rats. <i>Regulatory Toxicology and Pharmacology</i> , 2017, 87, 95-105.	2.7	11
109	Formulation and characterization of monodisperse O/W emulsions encapsulating astaxanthin extracts using microchannel emulsification: Insights of formulation and stability evaluation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 157, 355-365.	5.0	37

#	ARTICLE	IF	CITATIONS
110	Î²â€œCryptoxanthin exerts greater cardioprotective effects on cardiac ischemiaâ€œreperfusion injury than astaxanthin by attenuating mitochondrial dysfunction in mice. <i>Molecular Nutrition and Food Research</i> , 2017, 61, 1601077.	3.3	33
111	Acetylation, crystalline and morphological properties of structural polysaccharide from shrimp exoskeleton. <i>Engineering Science and Technology, an International Journal</i> , 2017, 20, 1155-1165.	3.2	46
112	Effects of astaxanthin on oxidative stress induced by Cu ²⁺ in prostate cells. <i>Journal of Zhejiang University: Science B</i> , 2017, 18, 161-171.	2.8	15
113	Shrimp oil extracted from the shrimp processing waste reduces the development of insulin resistance and metabolic phenotypes in diet-induced obese rats. <i>Applied Physiology, Nutrition and Metabolism</i> , 2017, 42, 841-849.	1.9	15
114	Astaxanthin attenuated pressure overload-induced cardiac dysfunction and myocardial fibrosis: Partially by activating SIRT1. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 1715-1728.	2.4	38
115	Astaxanthin in cardiovascular health and disease: mechanisms of action, therapeutic merits, and knowledge gaps. <i>Food and Function</i> , 2017, 8, 39-63.	4.6	142
116	Biofilm cultivation of <i>Haematococcus pluvialis</i> enables a highly productive one-phase process for astaxanthin production using high light intensities. <i>Algal Research</i> , 2017, 21, 213-222.	4.6	60
117	Astaxanthin improves cognitive performance in mice following mild traumatic brain injury. <i>Brain Research</i> , 2017, 1659, 88-95.	2.2	53
118	Astaxanthin conjugated polypyrrole nanoparticles as a multimodal agent for photo-based therapy and imaging. <i>International Journal of Pharmaceutics</i> , 2017, 517, 216-225.	5.2	31
119	Effects of selenite on green microalga <i>Haematococcus pluvialis</i> : Bioaccumulation of selenium and enhancement of astaxanthin production. <i>Aquatic Toxicology</i> , 2017, 183, 21-27.	4.0	49
120	Production of astaxanthin rich feed supplement for animals from <i>Phaffia rhodozyma</i> yeast at low cost. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	5
121	Maternal allocation of carotenoids increases tolerance to bacterial infection in brown trout. <i>Oecologia</i> , 2017, 185, 351-363.	2.0	18
122	Bioaccessibility, Cellular Uptake, and Transport of Astaxanthin Isomers and their Antioxidative Effects in Human Intestinal Epithelial Caco-2 Cells. <i>Journal of Agricultural and Food Chemistry</i> , 2017, 65, 10223-10232.	5.2	63
123	Experimental Evaluation of the Efficiency of Lipid Module Enriched with Docosahexaenoic Acid and Astaxanthin. <i>Bulletin of Experimental Biology and Medicine</i> , 2017, 163, 691-694.	0.8	1
125	Algae-Based Biologically Active Compounds. , 2017, , 155-271.		6
126	Astaxanthin alleviated acute lung injury by inhibiting oxidative/nitrative stress and the inflammatory response in mice. <i>Biomedicine and Pharmacotherapy</i> , 2017, 95, 974-982.	5.6	37
127	The Effects of Audible Sound for Enhancing the Growth Rate of Microalgae <i>Haematococcus pluvialis</i> in Vegetative Stage. <i>HAYATI Journal of Biosciences</i> , 2017, 24, 149-155.	0.4	19
128	The role of carotenoids in the prevention and treatment of cardiovascular disease â€œ Current state of knowledge. <i>Journal of Functional Foods</i> , 2017, 38, 45-65.	3.4	105

#	ARTICLE	IF	CITATIONS
129	Drugs: Their Natural, Synthetic, and Biosynthetic Sources. Progress in Drug Research Fortschritte Der Arzneimittelforschung Progres Des Recherches Pharmaceutiques, 2017, , 105-123.	0.6	8
130	Astaxanthin from Jerusalem artichoke: Production by fed-batch fermentation using Phaffia rhodozyma and application in cosmetics. Process Biochemistry, 2017, 63, 16-25.	3.7	32
131	Synthetic biology for manufacturing chemicals: constraints drive the use of non-conventional microbial platforms. Applied Microbiology and Biotechnology, 2017, 101, 7427-7434.	3.6	28
132	Enhanced production of astaxanthin by Chromochloris zofingiensis in a microplate-based culture system under high light irradiation. Bioresource Technology, 2017, 245, 518-529.	9.6	51
133	Effects of Astaxanthin on Liver and Leukocyte Parameters in Healthy Climacteric Women: Preliminary Data. Journal of Medicinal Food, 2017, 20, 724-725.	1.5	12
134	Bioactive Compounds From Microalgae: Current Development and Prospects. Studies in Natural Products Chemistry, 2017, , 199-225.	1.8	68
135	Functional analysis of photosynthetic pigment binding complexes in the green alga Haematococcus pluvialis reveals distribution of astaxanthin in Photosystems. Scientific Reports, 2017, 7, 16319.	3.3	31
136	Development of a carboxymethyl chitosan functionalized nanoemulsion formulation for increasing aqueous solubility, stability and skin permeability of astaxanthin using low-energy method. Journal of Microencapsulation, 2017, 34, 707-721.	2.8	35
137	Astaxanthin increases radiosensitivity in esophageal squamous cell carcinoma through inducing apoptosis and G2/M arrest. Ecological Management and Restoration, 2017, 30, 1-7.	0.4	28
138	Astaxanthin attenuates total body irradiation-induced hematopoietic system injury in mice via inhibition of oxidative stress and apoptosis. Stem Cell Research and Therapy, 2017, 8, 7.	5.5	81
139	Astaxanthin-based polymers as new antimicrobial compounds. Polymer Chemistry, 2017, 8, 4182-4189.	3.9	28
140	Two-step cultivation for production of astaxanthin in Chlorella zofingiensis using a patented energy-free rotating floating photobioreactor (RFP). Bioresource Technology, 2017, 224, 515-522.	9.6	70
141	Bioaccessibility and intestinal cell uptake of astaxanthin from salmon and commercial supplements. Food Research International, 2017, 99, 936-943.	6.2	37
142	Biocompatible astaxanthin as novel contrast agent for biomedical imaging. Journal of Biophotonics, 2017, 10, 1053-1061.	2.3	16
143	Chemical stability of astaxanthin integrated into a food matrix: Effects of food processing and methods for preservation. Food Chemistry, 2017, 225, 23-30.	8.2	95
144	Carotenoids: biochemistry, pharmacology and treatment. British Journal of Pharmacology, 2017, 174, 1290-1324.	5.4	473
145	Nonalcoholic Fatty Liver Disease and Insulin Resistance: New Insights and Potential New Treatments. Nutrients, 2017, 9, 387.	4.1	362
146	Marine Microbial-Derived Molecules and Their Potential Use in Cosmeceutical and Cosmetic Products. Marine Drugs, 2017, 15, 118.	4.6	114

#	ARTICLE	IF	CITATIONS
147	The Novel Mechanisms Concerning the Inhibitions of Palmitate-Induced Proinflammatory Factor Releases and Endogenous Cellular Stress with Astaxanthin on MIN6 β -Cells. <i>Marine Drugs</i> , 2017, 15, 185.	4.6	18
148	The Sea Urchin <i>Arbacia lixula</i> : A Novel Natural Source of Astaxanthin. <i>Marine Drugs</i> , 2017, 15, 187.	4.6	14
149	Rapid Estimation of Astaxanthin and the Carotenoid-to-Chlorophyll Ratio in the Green Microalga <i>Chromochloris zofingiensis</i> Using Flow Cytometry. <i>Marine Drugs</i> , 2017, 15, 231.	4.6	41
150	A Combination of Flaxseed Oil and Astaxanthin Improves Hepatic Lipid Accumulation and Reduces Oxidative Stress in High Fat-Diet Fed Rats. <i>Nutrients</i> , 2017, 9, 271.	4.1	45
151	Carotenoids from Marine Organisms: Biological Functions and Industrial Applications. <i>Antioxidants</i> , 2017, 6, 96.	5.1	250
152	Applications for Marine Resources in Cosmetics. <i>Cosmetics</i> , 2017, 4, 35.	3.3	108
153	A Combination of Soybean and <i>Haematococcus</i> Extract Alleviates Ultraviolet B-Induced Photoaging. <i>International Journal of Molecular Sciences</i> , 2017, 18, 682.	4.1	18
154	Uncovering Potential Applications of Cyanobacteria and Algal Metabolites in Biology, Agriculture and Medicine: Current Status and Future Prospects. <i>Frontiers in Microbiology</i> , 2017, 8, 515.	3.5	264
155	Oxidative Stress Regulation on Endothelial Cells by Hydrophilic Astaxanthin Complex: Chemical, Biological, and Molecular Antioxidant Activity Evaluation. <i>Oxidative Medicine and Cellular Longevity</i> , 2017, 2017, 1-15.	4.0	27
156	Protective Effects of Oral Astaxanthin Nanopowder against Ultraviolet-Induced Photokeratitis in Mice. <i>Oxidative Medicine and Cellular Longevity</i> , 2017, 2017, 1-13.	4.0	15
157	The Biochemistry and Antioxidant Properties of Carotenoids. , 0, , .		18
158	Astaxanthin mitigates cobalt cytotoxicity in the MG-63 cells by modulating the oxidative stress. <i>BMC Pharmacology & Toxicology</i> , 2017, 18, 58.	2.4	6
159	Astaxanthin increases progesterone production in cultured bovine luteal cells. <i>Journal of Veterinary Medical Science</i> , 2017, 79, 1103-1109.	0.9	8
160	HAEMATOCOCCUS PLUVIALIS MODULATING EFFECT ON NEUROTRANSMITTERS, HORMONES AND OXIDATIVE DAMAGE-ASSOCIATED WITH ALZHEIMER'S DISEASE IN EXPERIMENTAL RAT'S MODEL. <i>International Journal of Pharmacy and Pharmaceutical Sciences</i> , 2017, 9, 198.	0.3	1
161	Antarctic Krill Oil Diet Protects against Lipopolysaccharide-Induced Oxidative Stress, Neuroinflammation and Cognitive Impairment. <i>International Journal of Molecular Sciences</i> , 2017, 18, 2554.	4.1	38
162	Identification of a Novel Esterase from Marine Environmental Genomic DNA Libraries and Its Application in Production of Free All- <i>trans</i> -Astaxanthin. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 2812-2821.	5.2	15
163	A fluorescence ratio-based method to determine microalgal viability and its application to rapid optimization of cryopreservation. <i>Cryobiology</i> , 2018, 81, 27-33.	0.7	5
164	Over-accumulation of astaxanthin in <i>Haematococcus pluvialis</i> through chloroplast genetic engineering. <i>Algal Research</i> , 2018, 31, 291-297.	4.6	91

#	ARTICLE	IF	CITATIONS
165	Astaxanthin protects against kainic acid-induced seizures and pathological consequences. <i>Neurochemistry International</i> , 2018, 116, 85-94.	3.8	17
166	Peculiarities of modification by astaxanthin of radiation-induced damages in the genome of human blood lymphocytes exposed in vitro on different stages of the mitotic cycle. <i>Cytology and Genetics</i> , 2018, 52, 40-45.	0.5	11
167	Effects of Astaxanthin and Docosahexaenoic-Acid-Acylated Astaxanthin on Alzheimer's Disease in APP/PS1 Double-Transgenic Mice. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 4948-4957.	5.2	89
168	Effects of Composite Supplement Containing Astaxanthin and Sesamin on Cognitive Functions in People with Mild Cognitive Impairment: A Randomized, Double-Blind, Placebo-Controlled Trial. <i>Journal of Alzheimer's Disease</i> , 2018, 62, 1767-1775.	2.6	63
169	An updated review on use of tomato pomace and crustacean processing waste to recover commercially vital carotenoids. <i>Food Research International</i> , 2018, 108, 516-529.	6.2	68
170	Antioxidation and anti-aging activities of astaxanthin geometrical isomers and molecular mechanism involved in <i>Caenorhabditis elegans</i> . <i>Journal of Functional Foods</i> , 2018, 44, 127-136.	3.4	45
171	Carotenoid dynamics and lipid droplet containing astaxanthin in response to light in the green alga <i>Haematococcus pluvialis</i> . <i>Scientific Reports</i> , 2018, 8, 5617.	3.3	57
172	Dietary astaxanthin can accumulate in the brain of rats. <i>Bioscience, Biotechnology and Biochemistry</i> , 2018, 82, 1433-1436.	1.3	45
173	High throughput screening and profiling of high-value carotenoids from a wide diversity of bacteria in surface seawater. <i>Food Chemistry</i> , 2018, 261, 103-111.	8.2	20
174	Xanthophylls. <i>Advances in Nutrition</i> , 2018, 9, 160-162.	6.4	18
175	Formulation and characterization of astaxanthin-enriched nanoemulsions stabilized using ginseng saponins as natural emulsifiers. <i>Food Chemistry</i> , 2018, 255, 67-74.	8.2	70
176	Parthenolide reduces metastasis by inhibition of vimentin expression and induces apoptosis by suppression elongation factor 1 expression. <i>Phytomedicine</i> , 2018, 41, 67-73.	5.3	24
177	On the bioconversion of dietary carotenoids to astaxanthin in the marine copepod, <i>Tigriopus californicus</i> . <i>Journal of Plankton Research</i> , 2018, 40, 142-150.	1.8	27
178	Extraction and Characterization of Phospholipid-Enriched Oils from Antarctic Krill (<i>Euphausia</i>)	1.4	10
179	Effect of astaxanthin on the quality of boar sperm stored at 17°C, incubated at 37°C or under in vitro conditions. <i>Reproduction in Domestic Animals</i> , 2018, 53, 463-471.	1.4	18
180	Physicochemical Properties of Whey-Protein-Stabilized Astaxanthin Nanodispersion and Its Transport via a Caco-2 Monolayer. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 1472-1478.	5.2	48
181	Astaxanthin ameliorates cerulein-induced acute pancreatitis in mice. <i>International Immunopharmacology</i> , 2018, 56, 18-28.	3.8	29
182	Application of <i>Paracoccus marcusii</i> as a potential feed additive for laying hens. <i>Poultry Science</i> , 2018, 97, 986-994.	3.4	14

#	ARTICLE	IF	CITATIONS
183	Isolation of High Carotenoid-producing <i>Aurantiochytrium</i> sp. Mutants and Improvement of Astaxanthin Productivity Using Metabolic Information. <i>Journal of Oleo Science</i> , 2018, 67, 571-578.	1.4	36
184	Protective effects of astaxanthin on a combination of D-galactose and jet lag-induced aging model in mice. <i>Endocrine Journal</i> , 2018, 65, 569-578.	1.6	19
185	Protection of astaxanthin from photodegradation by its inclusion in hierarchically assembled nano and microstructures with potential as food. <i>Food Hydrocolloids</i> , 2018, 83, 36-44.	10.7	30
186	Astaxanthin from <i>Phaffia rhodozyma</i> : Microencapsulation with carboxymethyl cellulose sodium and microcrystalline cellulose and effects of microencapsulated astaxanthin on yogurt properties. <i>LWT - Food Science and Technology</i> , 2018, 96, 152-160.	5.2	39
187	Carotenoid supplementation and retinoic acid in immunoglobulin A regulation of the gut microbiota dysbiosis. <i>Experimental Biology and Medicine</i> , 2018, 243, 613-620.	2.4	86
188	Next-Generation Sequencing of <i>Haematococcus lacustris</i> Reveals an Extremely Large 1.35-Megabase Chloroplast Genome. <i>Genome Announcements</i> , 2018, 6, .	0.8	30
189	Effects of dietary astaxanthin (AX) supplementation on pigmentation, antioxidant capacity and nutritional value of swimming crab, <i>Portunus trituberculatus</i> . <i>Aquaculture</i> , 2018, 490, 169-177.	3.5	46
190	Biodiesel from microalgae lipids: from inorganic carbon to energy production. <i>Biofuels</i> , 2018, 9, 175-202.	2.4	21
191	High-carotenoid maize: development of plant biotechnology prototypes for human and animal health and nutrition. <i>Phytochemistry Reviews</i> , 2018, 17, 195-209.	6.5	24
192	Astaxanthin as feed supplement in aquatic animals. <i>Reviews in Aquaculture</i> , 2018, 10, 738-773.	9.0	249
193	Carotenoid extraction methods: A review of recent developments. <i>Food Chemistry</i> , 2018, 240, 90-103.	8.2	543
194	Diabetes and Liver Disorders. , 2018, , 85-99.		0
195	Differential responses of the green microalga <i>Chlorella zofingiensis</i> to the starvation of various nutrients for oil and astaxanthin production. <i>Bioresource Technology</i> , 2018, 249, 791-798.	9.6	80
196	Microalgae in aquafeeds for a sustainable aquaculture industry. <i>Journal of Applied Phycology</i> , 2018, 30, 197-213.	2.8	263
197	Astaxanthin-antioxidant impact on excessive Reactive Oxygen Species generation induced by ischemia and reperfusion injury. <i>Chemico-Biological Interactions</i> , 2018, 279, 145-158.	4.0	83
198	Synthesis, stability and bioavailability of astaxanthin succinate diester. <i>Journal of the Science of Food and Agriculture</i> , 2018, 98, 3182-3189.	3.5	14
199	Marine natural pigments as potential sources for therapeutic applications. <i>Critical Reviews in Biotechnology</i> , 2018, 38, 745-761.	9.0	69
200	Stability application and research of astaxanthin integrated into food. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 394, 022007.	0.6	12

#	ARTICLE	IF	CITATIONS
201	Astaxanthin as a Modifier of Genome Instability after β -Radiation. , 2018, , .		4
202	Electrospun cellulose acetate doped with astaxanthin derivatives from <i>Haematococcus pluvialis</i> for <i>in vivo</i> anti-aging activity. RSC Advances, 2018, 8, 37151-37158.	3.6	13
203	GC-MS ANALYSIS OF BIOACTIVE COMPOUNDS FROM THE ETHANOL EXTRACT OF LEAVES OF NEIBUHRIA APETALA DUNN.. International Research Journal of Pharmacy, 2018, 8, 72-78.	0.2	7
204	Effects of Z-Isomerization on the Bioavailability and Functionality of Carotenoids: A Review. , 0, , .		4
205	Microbiological Synthesis of Carotenoids: Pathways and Regulation. , 2018, , .		5
206	Astaxanthin Prevents Human Papillomavirus L1 Protein Binding in Human Sperm Membranes. Marine Drugs, 2018, 16, 427.	4.6	12
207	Hairy Root-Mediated Biotransformation: Recent Advances and Exciting Prospects. , 2018, , 185-211.		9
208	Extraction of Astaxanthin and Lutein from Microalga <i>Haematococcus pluvialis</i> in the Red Phase Using CO ₂ Supercritical Fluid Extraction Technology with Ethanol as Co-Solvent. Marine Drugs, 2018, 16, 432.	4.6	105
209	General Protocol to Obtain D-Glucosamine from Biomass Residues: Shrimp Shells, Cicada Sloughs and Cockroaches. Global Challenges, 2018, 2, 1800046.	3.6	20
210	Consumption of carotenoids not increased by bacterial infection in brown trout embryos (<i>Salmo</i>) Tj ETQq1 1 0.784314 rgBT /Overloc	2.5	8
211	Extraction of antioxidants from <i>Haematococcus pluvialis</i> by osmotic shock with sucrose, for use in the preparation of syrup for jams. , 2018, , .		2
212	Bioactive Secondary Metabolites from Octocoral-Associated Microbes – New Chances for Blue Growth. Marine Drugs, 2018, 16, 485.	4.6	59
213	Hairy Roots. , 2018, , .		20
214	Applications of microalgal paste and powder as food and feed: An update using text mining tool. Beni-Suef University Journal of Basic and Applied Sciences, 2018, 7, 740-747.	2.0	49
215	The effects of concentration and supplementation time of natural and synthetic sources of astaxanthin on the colouration of the prawn <i>Penaeus monodon</i> . Algal Research, 2018, 35, 577-585.	4.6	26
216	Astaxanthin Inhibits Mitochondrial Dysfunction and Interleukin-8 Expression in <i>Helicobacter pylori</i> -Infected Gastric Epithelial Cells. Nutrients, 2018, 10, 1320.	4.1	61
217	Astaxanthin attenuates neuroinflammation contributed to the neuropathic pain and motor dysfunction following compression spinal cord injury. Brain Research Bulletin, 2018, 143, 217-224.	3.0	64
218	Astaxanthin ameliorates experimental diabetes-induced renal oxidative stress and fibronectin by upregulating connexin43 in glomerular mesangial cells and diabetic mice. European Journal of Pharmacology, 2018, 840, 33-43.	3.5	27

#	ARTICLE	IF	CITATIONS
219	Bioaccessibility of Marine Carotenoids. <i>Marine Drugs</i> , 2018, 16, 397.	4.6	52
220	Astaxanthin enhances the longevity of <i>Saccharomyces cerevisiae</i> by decreasing oxidative stress and apoptosis. <i>FEMS Yeast Research</i> , 2019, 19, .	2.3	8
221	Comparison of the Modifying Action of Astaxanthin on the Development of Radiation-Induced Chromosome Instability in Human Blood Lymphocytes Irradiated in vitro at Different Cell Cycle Stages. <i>Cytology and Genetics</i> , 2018, 52, 368-373.	0.5	2
222	Astaxanthin-Loaded Nanostructured Lipid Carriers for Preservation of Antioxidant Activity. <i>Molecules</i> , 2018, 23, 2601.	3.8	48
223	From Golden Rice to aSTARice: Bioengineering Astaxanthin Biosynthesis in Rice Endosperm. <i>Molecular Plant</i> , 2018, 11, 1440-1448.	8.3	123
224	Supercritical Carbon Dioxide Extraction of Astaxanthin, Lutein, and Fatty Acids from <i>Haematococcus pluvialis</i> Microalgae. <i>Marine Drugs</i> , 2018, 16, 334.	4.6	103
225	UV-Protective Compounds in Marine Organisms from the Southern Ocean. <i>Marine Drugs</i> , 2018, 16, 336.	4.6	74
226	Effects of Antioxidants in Reducing Accumulation of Fat in Hepatocyte. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2563.	4.1	35
227	Draft Genome Sequence of <i>Sphingorhabdus</i> sp. Strain EL138, a Metabolically Versatile Alphaproteobacterium Isolated from the Gorgonian Coral <i>Eunicella labiata</i> . <i>Genome Announcements</i> , 2018, 6, .	0.8	12
228	Comparison of the effect of non-esterified and esterified astaxanthins on endurance performance in mice. <i>Journal of Clinical Biochemistry and Nutrition</i> , 2018, 62, 161-166.	1.4	36
229	Role of NRF2 in protection of the gastrointestinal tract against oxidative stress. <i>Journal of Clinical Biochemistry and Nutrition</i> , 2018, 63, 18-25.	1.4	59
230	Hydrolytic efficiency and isomerization during de-esterification of natural astaxanthin esters by saponification and enzymolysis. <i>Electronic Journal of Biotechnology</i> , 2018, 34, 37-42.	2.2	48
231	Assessment of the antioxidant effect of astaxanthin in fresh, frozen and cooked lamb patties. <i>Food Research International</i> , 2018, 111, 342-350.	6.2	32
232	Dietary supplementation of <i>Haematococcus pluvialis</i> improved the immune capacity and low salinity tolerance ability of post-larval white shrimp, <i>Litopenaeus vannamei</i> . <i>Fish and Shellfish Immunology</i> , 2018, 80, 452-457.	3.6	55
233	Melatonin: A Multifunctional Molecule That Triggers Defense Responses against High Light and Nitrogen Starvation Stress in <i>Haematococcus pluvialis</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 7701-7711.	5.2	79
234	Isolation and identification of the main carotenoid pigment from a new variety of the ridgetail white prawn <i>Exopalaemon carinicauda</i> . <i>Food Chemistry</i> , 2018, 269, 450-454.	8.2	21
235	Effects of <i>Xanthophyllomyces dendrorhous</i> on cell growth, lipid, and astaxanthin production of <i>Chromochloris zofingiensis</i> by mixed culture strategy. <i>Journal of Applied Phycology</i> , 2018, 30, 3009-3015.	2.8	12
236	Extraction of value-added components from food industry based and agro-forest biowastes by deep eutectic solvents. <i>Journal of Biotechnology</i> , 2018, 282, 46-66.	3.8	136

#	ARTICLE	IF	CITATIONS
237	Astaxanthin Promotes Nrf2/ARE Signaling to Alleviate Renal Fibronectin and Collagen IV Accumulation in Diabetic Rats. <i>Journal of Diabetes Research</i> , 2018, 2018, 1-7.	2.3	52
238	Astaxanthin effectiveness in preventing multiple sclerosis in animal model. <i>Bratislava Medical Journal</i> , 2018, 119, 160-166.	0.8	6
239	The Protective Effect of Astaxanthin on Cognitive Function via Inhibition of Oxidative Stress and Inflammation in the Brains of Chronic T2DM Rats. <i>Frontiers in Pharmacology</i> , 2018, 9, 748.	3.5	67
240	Inhibitory effect of astaxanthin on pancreatic lipase with inhibition kinetics integrating molecular docking simulation. <i>Journal of Functional Foods</i> , 2018, 48, 551-557.	3.4	44
241	Astaxanthin in Exercise Metabolism, Performance and Recovery: A Review. <i>Frontiers in Nutrition</i> , 2017, 4, 76.	3.7	55
242	A Possible Role for Singlet Oxygen in the Degradation of Various Antioxidants. A Meta-Analysis and Review of Literature Data. <i>Antioxidants</i> , 2018, 7, 35.	5.1	24
243	Review of the composition and current utilization of <i>Calanus finmarchicus</i> " Possibilities for human consumption. <i>Trends in Food Science and Technology</i> , 2018, 79, 10-18.	15.1	17
244	Astaxanthin Promotes Nrf2/ARE Signaling to Inhibit HG-Induced Renal Fibrosis in GMCs. <i>Marine Drugs</i> , 2018, 16, 117.	4.6	43
245	Investigation of the Anti-Prostate Cancer Properties of Marine-Derived Compounds. <i>Marine Drugs</i> , 2018, 16, 160.	4.6	30
246	Exploring the Valuable Carotenoids for the Large-Scale Production by Marine Microorganisms. <i>Marine Drugs</i> , 2018, 16, 203.	4.6	105
247	Reparative Effects of Astaxanthin-Hyaluronan Nanoaggregates against Retrorsine-CCl4-Induced Liver Fibrosis and Necrosis. <i>Molecules</i> , 2018, 23, 726.	3.8	19
248	The Protective Role of Astaxanthin for UV-Induced Skin Deterioration in Healthy People" A Randomized, Double-Blind, Placebo-Controlled Trial. <i>Nutrients</i> , 2018, 10, 817.	4.1	80
249	Efficient heterologous expression of an alkaline lipase and its application in hydrolytic production of free astaxanthin. <i>Biotechnology for Biofuels</i> , 2018, 11, 181.	6.2	10
250	Extraction of astaxanthin from microalga <i>Haematococcus pluvialis</i> in red phase by using generally recognized as safe solvents and accelerated extraction. <i>Journal of Biotechnology</i> , 2018, 283, 51-61.	3.8	126
251	Rapid selection of astaxanthin-hyperproducing <i>Haematococcus</i> mutant via azide-based colorimetric assay combined with oil-based astaxanthin extraction. <i>Bioresource Technology</i> , 2018, 267, 175-181.	9.6	39
252	Heat Shock Proteins and Autophagy Pathways in Neuroprotection: From Molecular Bases to Pharmacological Interventions. <i>International Journal of Molecular Sciences</i> , 2018, 19, 325.	4.1	68
253	Pharmacologically Active Plant-Derived Natural Products. , 2018, , 49-64.		6
254	Multidimensional heuristic process for high-yield production of astaxanthin and fragrance molecules in <i>Escherichia coli</i> . <i>Nature Communications</i> , 2018, 9, 1858.	12.8	100

#	ARTICLE	IF	CITATIONS
255	Astaxanthin: A mechanistic review on its biological activities and health benefits. <i>Pharmacological Research</i> , 2018, 136, 1-20.	7.1	286
256	Imaging Spectroscopic Technique: Raman Chemical Imaging. , 2018, , 287-319.		1
257	Inhibitory Effect of Astaxanthin on Oxidative Stress-Induced Mitochondrial Dysfunction-A Mini-Review. <i>Nutrients</i> , 2018, 10, 1137.	4.1	160
258	Nutraceutical Approach to Non-Alcoholic Fatty Liver Disease (NAFLD): The Available Clinical Evidence. <i>Nutrients</i> , 2018, 10, 1153.	4.1	115
259	Astaxanthin overproduction in yeast by strain engineering and new gene target uncovering. <i>Biotechnology for Biofuels</i> , 2018, 11, 230.	6.2	77
260	Drying and extraction of astaxanthin from pink shrimp waste (<i>Farfantepenaeus subtilis</i>): the applicability of spouted beds. <i>Food Science and Technology</i> , 2018, 38, 454-461.	1.7	23
261	Modulation of gene expression by cocktail λ -integration to improve carotenoid production in <i>Saccharomyces cerevisiae</i> . <i>Bioresource Technology</i> , 2018, 268, 616-621.	9.6	16
262	Metabolic engineering of <i>Escherichia coli</i> for high-level astaxanthin production with high productivity. <i>Metabolic Engineering</i> , 2018, 49, 105-115.	7.0	124
263	Plasma metabolomic analysis in mature female common bottlenose dolphins: profiling the characteristics of metabolites after overnight fasting by comparison with data in beagle dogs. <i>Scientific Reports</i> , 2018, 8, 12030.	3.3	16
264	Batch Cultivation for Astaxanthin Analysis Using the Green Microalga <i>Chlorella zofingiensis</i> Under Multitrophic Growth Conditions. <i>Methods in Molecular Biology</i> , 2018, 1852, 97-106.	0.9	5
265	Effects of astaxanthin on <i>Brachionus manjavacas</i> (Rotifera) population growth. <i>Aquaculture Research</i> , 2018, 49, 2278-2287.	1.8	10
266	Assessment of Expression Cassettes and Culture Media for Different <i>Escherichia coli</i> Strains to Produce Astaxanthin. <i>Natural Products and Bioprospecting</i> , 2018, 8, 397-403.	4.3	11
267	Astaxanthin, a Marine Carotenoid Against Hepatic Oxidative Stress: a Systematic Review. , 2018, , 211-228.		0
268	Biological interaction of newly synthesized astaxanthin-s-allyl cysteine biconjugate with <i>Saccharomyces cerevisiae</i> and mammalian β -glucosidase: In vitro kinetics and in silico docking analysis. <i>International Journal of Biological Macromolecules</i> , 2018, 118, 252-262.	7.5	19
269	Crustacean By-products. , 2019, , 33-38.		8
270	Physiological sensitivity of <i>Haematococcus pluvialis</i> (Chlorophyta) to environmental pollutants: a comparison with <i>Microcystis wesenbergii</i> (cyanobacteria) and <i>Pseudokirchneriella subcapitata</i> (Chlorophyta). <i>Journal of Applied Phycology</i> , 2019, 31, 365-374.	2.8	4
271	Microbial diversity in freshwater ecosystems and its industrial potential. , 2019, , 341-392.		4
272	Gut Microbiota, Dietary Phytochemicals, and Benefits to Human Health. <i>Current Pharmacology Reports</i> , 2019, 5, 332-344.	3.0	54

#	ARTICLE	IF	CITATIONS
273	Cheese Whey Processing: Integrated Biorefinery Concepts and Emerging Food Applications. <i>Foods</i> , 2019, 8, 347.	4.3	128
274	Do We Utilize Our Knowledge of the Skin Protective Effects of Carotenoids Enough?. <i>Antioxidants</i> , 2019, 8, 259.	5.1	57
275	<p>Dietary natural astaxanthin at an early stage inhibits N-nitrosomethylbenzylamineâ€“induced esophageal cancer oxidative stress and inflammation via downregulation of NF<sup>ÏB and COX2 in F344 rats</p>. <i>OncoTargets and Therapy</i> , 2019, Volume 12, 5087-5096.	2.0	24
276	Extraction of natural astaxanthin from <i>Haematococcus pluvialis</i> using liquid biphasic flotation system. <i>Bioresource Technology</i> , 2019, 290, 121794.	9.6	64
277	Enhancing the colouration of the marine ornamental fish <i>Pseudochromis fridmani</i> using natural and synthetic sources of astaxanthin. <i>Algal Research</i> , 2019, 42, 101596.	4.6	21
278	Health Benefits of Carotenoids: A Role of Carotenoids in the Prevention of Non-Alcoholic Fatty Liver Disease. <i>Preventive Nutrition and Food Science</i> , 2019, 24, 103-113.	1.6	41
279	The Neuroprotective Effects of Astaxanthin: Therapeutic Targets and Clinical Perspective. <i>Molecules</i> , 2019, 24, 2640.	3.8	93
280	Research progress on extraction, biological activities and delivery systems of natural astaxanthin. <i>Trends in Food Science and Technology</i> , 2019, 91, 354-361.	15.1	98
281	Direct extraction of astaxanthin from the microalgae <i>Haematococcus pluvialis</i> using liquidâ€“liquid chromatography. <i>RSC Advances</i> , 2019, 9, 22779-22789.	3.6	42
282	The Influence of Astaxanthin on the Proliferation of Adipose-derived Mesenchymal Stem Cells in Gelatin-Methacryloyl (GelMA) Hydrogels. <i>Materials</i> , 2019, 12, 2416.	2.9	11
283	Astaxanthin inhibits hallmarks of cancer by targeting the PI3K/NF<sup>Ï/STAT3 signalling axis in oral squamous cell carcinoma models. <i>IUBMB Life</i> , 2019, 71, 1595-1610.	3.4	36
284	Ethanol induced jasmonate pathway promotes astaxanthin hyperaccumulation in <i>Haematococcus pluvialis</i> . <i>Bioresource Technology</i> , 2019, 289, 121720.	9.6	34
285	Improving the shelf-life of food products by nano/micro-encapsulated ingredients. , 2019, , 159-200.		8
286	The amazing potential of fungi: 50 ways we can exploit fungi industrially. <i>Fungal Diversity</i> , 2019, 97, 1-136.	12.3	459
287	Physiological and Metabolomics Analyses Reveal the Roles of Fulvic Acid in Enhancing the Production of Astaxanthin and Lipids in <i>Haematococcus pluvialis</i> under Abiotic Stress Conditions. <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 12599-12609.	5.2	40
288	Storage of Carotenoids in Crustaceans as an Adaptation to Modulate Immunopathology and Optimize Immunological and Lifeâ€“History Strategies. <i>BioEssays</i> , 2019, 41, e1800254.	2.5	14
289	Third-generation biofuels from microalgae: a review. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2019, 20, 39-44.	5.9	136
290	Astaxanthin Ameliorates the Lipopolysaccharides-Induced Subfertility in Mouse via Nrf2/HO-1 Antioxidant Pathway. <i>Dose-Response</i> , 2019, 17, 155932581987853.	1.6	11

#	ARTICLE	IF	CITATIONS
291	Development and Characterization of Astaxanthin-Containing Whey Protein-Based Nanoparticles. <i>Marine Drugs</i> , 2019, 17, 627.	4.6	29
292	Effects of Astaxanthin from Shrimp Shell on Oxidative Stress and Behavior in Animal Model of Alzheimer's Disease. <i>Marine Drugs</i> , 2019, 17, 628.	4.6	37
293	Effects of Drying Methods on the Content, Structural Isomers, and Composition of Astaxanthin in Antarctic Krill. <i>ACS Omega</i> , 2019, 4, 17972-17980.	3.5	16
294	A Comparison of Constitutive and Inducible Non-Endogenous Keto-Carotenoids Biosynthesis in <i>Synechocystis</i> sp. PCC 6803. <i>Microorganisms</i> , 2019, 7, 501.	3.6	8
295	Astaxanthin ameliorates cisplatin-induced damage in normal human fibroblasts. <i>Oral Science International</i> , 2019, 16, 171-177.	0.7	3
296	Biomolecules from extremophile microalgae: From genetics to bioprocessing of a new candidate for large-scale production. <i>Process Biochemistry</i> , 2019, 87, 37-44.	3.7	19
298	Transcriptomic analysis unveils survival strategies of autotrophic <i>Haematococcus pluvialis</i> against high light stress. <i>Aquaculture</i> , 2019, 513, 734430.	3.5	30
299	Optimization and characterization of poly(lactic-co-glycolic acid) nanoparticles loaded with astaxanthin and evaluation of anti-photodamage effect <i>in vitro</i> . <i>Royal Society Open Science</i> , 2019, 6, 191184.	2.4	34
300	De novo synthesis of astaxanthin: From organisms to genes. <i>Trends in Food Science and Technology</i> , 2019, 92, 162-171.	15.1	67
301	Therapeutic and Protective Effects of Liposomal Encapsulation of Astaxanthin in Mice with Alcoholic Liver Fibrosis. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4057.	4.1	15
302	Biomarkers of seaweed intake. <i>Genes and Nutrition</i> , 2019, 14, 24.	2.5	10
303	Oxidative Stress as the Main Target in Diabetic Retinopathy Pathophysiology. <i>Journal of Diabetes Research</i> , 2019, 2019, 1-21.	2.3	102
304	Marine Proteobacteria as a source of natural products: advances in molecular tools and strategies. <i>Natural Product Reports</i> , 2019, 36, 1333-1350.	10.3	49
305	Sublingual Delivery of Astaxanthin through a Novel Ascorbyl Palmitate-Based Nanoemulsion: Preliminary Data. <i>Marine Drugs</i> , 2019, 17, 508.	4.6	16
306	Biomass and Astaxanthin Productivities of <i>Haematococcus pluvialis</i> in an Angled Twin-Layer Porous Substrate Photobioreactor: Effect of Inoculum Density and Storage Time. <i>Biology</i> , 2019, 8, 68.	2.8	25
307	Microalgae "nutritious, sustainable aqua- and animal feed" source. <i>Journal of Functional Foods</i> , 2019, 62, 103545.	3.4	147
308	Rapeseed meal hydrolysate as substrate for microbial astaxanthin production. <i>Biochemical Engineering Journal</i> , 2019, 151, 107330.	3.6	20
309	Safe and Complete Extraction of Astaxanthin from <i>Haematococcus pluvialis</i> by Efficient Mechanical Disruption of Cyst Cell Wall. <i>International Journal of Food Engineering</i> , 2019, 15, .	1.5	10

#	ARTICLE	IF	CITATIONS
310	Green algal molecular responses to temperature stress. <i>Acta Physiologiae Plantarum</i> , 2019, 41, 1.	2.1	49
311	Acidic cultivation of <i>Haematococcus pluvialis</i> for improved astaxanthin production in the presence of a lethal fungus. <i>Bioresource Technology</i> , 2019, 278, 138-144.	9.6	58
312	Carotenoid Content in Breastmilk in the 3rd and 6th Month of Lactation and Its Associations with Maternal Dietary Intake and Anthropometric Characteristics. <i>Nutrients</i> , 2019, 11, 193.	4.1	36
313	Astaxanthin, a xanthophyll carotenoid, prevents development of dextran sulphate sodium-induced murine colitis. <i>Journal of Clinical Biochemistry and Nutrition</i> , 2019, 64, 66-72.	1.4	33
314	Influence of agriculture fertilizer for the enhanced growth and astaxanthin production from <i>Haematococcus lacustris</i> RRGK isolated from Himachal Pradesh, India. <i>SN Applied Sciences</i> , 2019, 1, 1.	2.9	4
315	Astaxanthin Production by Microalgae <i>Haematococcus pluvialis</i> Through Wastewater Treatment: Waste to Resource. , 2019, , 17-39.		8
316	Media effects on laboratory scale production costs of <i>Haematococcus pluvialis</i> biomass. <i>Bioresource Technology Reports</i> , 2019, 7, 100236.	2.7	13
317	Defatted <i>Haematococcus pluvialis</i> meal can enhance the coloration of adult Chinese mitten crab <i>Eriocheir sinensis</i> . <i>Aquaculture</i> , 2019, 510, 371-379.	3.5	19
318	Multilevel heuristic LED regime for stimulating lipid and bioproducts biosynthesis in <i>Haematococcus pluvialis</i> under mixotrophic conditions. <i>Bioresource Technology</i> , 2019, 288, 121525.	9.6	24
319	Characterization of Magnesium Orotate-loaded Chitosan Polymer Nanoparticles for a Drug Delivery System. <i>Chemical Engineering and Technology</i> , 2019, 42, 1816-1824.	1.5	1
320	Microalgae Culturing To Produce Biobased Diesel Fuels: An Overview of the Basics, Challenges, and a Look toward a True Biorefinery Future. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 15724-15746.	3.7	17
321	Deesterification of astaxanthin and intermediate esters from <i>Haematococcus pluvialis</i> subjected to stress. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2019, 23, e00351.	4.4	18
322	Carotenoids and Markers of Oxidative Stress in Human Observational Studies and Intervention Trials: Implications for Chronic Diseases. <i>Antioxidants</i> , 2019, 8, 179.	5.1	108
323	Use of pulsed electric field permeabilization to extract astaxanthin from the Nordic microalga <i>Haematococcus pluvialis</i> . <i>Bioresource Technology</i> , 2019, 289, 121694.	9.6	72
324	Astaxanthin protects against renal fibrosis through inhibiting myofibroblast activation and promoting CD8+ T cell recruitment. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2019, 1863, 1360-1370.	2.4	20
325	Agro-industrial wastes for the synthesis of carotenoids by <i>Xanthophyllomyces dendrorhous</i> : Mesquite pods-based medium design and optimization. <i>Biochemical Engineering Journal</i> , 2019, 150, 107260.	3.6	25
326	Effect of culturing parameters on the vegetative growth of <i>Haematococcus alpinus</i> (strain Icrâ€œcâ€œ261f) and modeling of its growth kinetics. <i>Journal of Phycology</i> , 2019, 55, 1071-1081.	2.3	2
327	Anti-Obesity Effect of Standardized Extract of Microalga <i>Phaeodactylum tricornutum</i> Containing Fucoxanthin. <i>Marine Drugs</i> , 2019, 17, 311.	4.6	58

#	ARTICLE	IF	CITATIONS
328	Effects of astaxanthin produced by <i>Phaffia rhodozyma</i> on growth performance, antioxidant activities, and meat quality in Pekin ducks. <i>Poultry Science</i> , 2019, 98, 4954-4960.	3.4	33
329	Nutrient Deprivation-Associated Changes in Green Microalga <i>Coelastrum</i> sp. TISTR 9501RE Enhanced Potent Antioxidant Carotenoids. <i>Marine Drugs</i> , 2019, 17, 328.	4.6	17
330	Recent advances in biorefinery of astaxanthin from <i>Haematococcus pluvialis</i> . <i>Bioresource Technology</i> , 2019, 288, 121606.	9.6	200
331	Enzyme-assisted extraction of astaxanthin from <i>Haematococcus pluvialis</i> and its stability and antioxidant activity. <i>Food Science and Biotechnology</i> , 2019, 28, 1637-1647.	2.6	35
332	Red yeast (<i>Phaffia rhodozyma</i>) as a source of Astaxanthin and its impacts on productive performance and physiological responses of poultry. <i>World's Poultry Science Journal</i> , 2019, 75, 273-284.	3.0	23
333	Anti-Inflammatory Effects of Different Astaxanthin Isomers and the Roles of Lipid Transporters in the Cellular Transport of Astaxanthin Isomers in Caco-2 Cell Monolayers. <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 6222-6231.	5.2	69
334	Microalgal-Based Carbon Sequestration by Converting LNG-Fired Waste CO ₂ into Red Gold Astaxanthin: The Potential Applicability. <i>Energies</i> , 2019, 12, 1718.	3.1	41
335	<i>Xenopus</i> Oocyte™s Conductance for Bioactive Compounds Screening and Characterization. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2083.	4.1	2
336	Manipulation of trophic capacities in <i>Haematococcus pluvialis</i> enables low-light mediated growth on glucose and astaxanthin formation in the dark. <i>Algal Research</i> , 2019, 40, 101497.	4.6	18
337	Influence of different lipid sources on growth performance, oxidation resistance and fatty acid profiles of juvenile swimming crab, <i>Portunus trituberculatus</i> . <i>Aquaculture</i> , 2019, 508, 147-158.	3.5	43
338	Light Elicits Astaxanthin Biosynthesis and Accumulation in the Fermented Ultrahigh-Density <i>Chlorella zofinginesis</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 5579-5586.	5.2	38
339	Potato protein- based carriers for enhancing bioavailability of astaxanthin. <i>Food Hydrocolloids</i> , 2019, 96, 72-80.	10.7	65
340	The Neuroprotective Effect of Astaxanthin on Pilocarpine-Induced Status Epilepticus in Rats. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 123.	3.7	43
341	Astaxanthin as a Peroxisome Proliferator-Activated Receptor (PPAR) Modulator: Its Therapeutic Implications. <i>Marine Drugs</i> , 2019, 17, 242.	4.6	40
342	Comparative Transcriptome Analyses Provide Potential Insights into the Molecular Mechanisms of Astaxanthin in the Protection against Alcoholic Liver Disease in Mice. <i>Marine Drugs</i> , 2019, 17, 181.	4.6	14
343	Some physical characteristics of the O/W macroemulsion of oleoresin of astaxanthin obtained from biomass of <i>Haematococcus pluvialis</i> . <i>DYNA (Colombia)</i> , 2019, 86, 136-142.	0.4	5
344	Nuances of microalgal technology in food and nutraceuticals: a review. <i>Nutrition and Food Science</i> , 2019, 49, 866-885.	0.9	11
345	Multiomics analysis reveals a distinct mechanism of oleaginousness in the emerging model alga <i>Chromochloris zofingiensis</i> . <i>Plant Journal</i> , 2019, 98, 1060-1077.	5.7	55

#	ARTICLE	IF	CITATIONS
346	Isolation, Identification of Carotenoid-Producing <i>Rhodotorula</i> sp. from Marine Environment and Optimization for Carotenoid Production. <i>Marine Drugs</i> , 2019, 17, 161.	4.6	54
347	Multiple promoters driving the expression of astaxanthin biosynthesis genes can enhance free-form astaxanthin production. <i>Journal of Microbiological Methods</i> , 2019, 160, 20-28.	1.6	15
348	Rat Glioma Cell-Based Functional Characterization of Anti-Stress and Protein Deaggregation Activities in the Marine Carotenoids, Astaxanthin and Fucoxanthin. <i>Marine Drugs</i> , 2019, 17, 189.	4.6	19
349	Neuroprotective effect of astaxanthin on newborn rats exposed to prenatal maternal seizures. <i>Brain Research Bulletin</i> , 2019, 148, 63-69.	3.0	22
350	Correlation between Fatty Acid Profile and Anti-Inflammatory Activity in Common Australian Seafood by-Products. <i>Marine Drugs</i> , 2019, 17, 155.	4.6	52
351	Carvacrol and astaxanthin co-entrapment in beeswax solid lipid nanoparticles as an efficient nano-system with dual antioxidant and anti-biofilm activities. <i>LWT - Food Science and Technology</i> , 2019, 107, 280-290.	5.2	41
353	Algae for biofuels: The third generation of feedstock. , 2019, , 323-344.		27
354	Astaxanthin inhibits proliferation and induces apoptosis of LX ² cells by regulating the miR ^{29b} /Bcl ² pathway. <i>Molecular Medicine Reports</i> , 2019, 19, 3537-3547.	2.4	11
355	Biorefinery approach and environment-friendly extraction for sustainable production of astaxanthin from marine wastes. <i>Critical Reviews in Biotechnology</i> , 2019, 39, 469-488.	9.0	55
356	Effects of dietary astaxanthin supplementation on the oxidative stability of meat from suckling lambs fed a commercial milk-replacer containing butylated hydroxytoluene. <i>Meat Science</i> , 2019, 156, 68-74.	5.5	14
357	Physicochemical Properties and Cellular Uptake of Astaxanthin-Loaded Emulsions. <i>Molecules</i> , 2019, 24, 727.	3.8	27
358	Interaction between warfarin and astaxanthin: A case report. <i>Journal of Cardiology Cases</i> , 2019, 19, 173-175.	0.5	1
359	Nanoencapsulation of carotenoids within lipid-based nanocarriers. <i>Journal of Controlled Release</i> , 2019, 298, 38-67.	9.9	205
360	Astaxanthin supplementation reduces dichlorvos-induced cytotoxicity in <i>Saccharomyces cerevisiae</i> . <i>3 Biotech</i> , 2019, 9, 88.	2.2	4
361	Current bioeconomical interest in stramenopilic Eustigmatophyceae: a review. <i>Biotechnology and Biotechnological Equipment</i> , 2019, 33, 302-314.	1.3	10
362	Strategy and regulatory mechanisms of glutamate feeding to enhance astaxanthin yield in <i>Xanthophyllomyces dendrorhous</i> . <i>Enzyme and Microbial Technology</i> , 2019, 125, 45-52.	3.2	23
363	Antarctic Krill (<i>Euphausia superba</i>) Oil: A Comprehensive Review of Chemical Composition, Extraction Technologies, Health Benefits, and Current Applications. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2019, 18, 514-534.	11.7	102
364	Fluazinam Potential as a Fungicide in Liquid Culture System for the Growth of <i>Haematococcus pluvialis</i> Microalgae. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 703, 012035.	0.6	2

#	ARTICLE	IF	CITATIONS
365	Safety and efficacy of astaxanthin dimethylsuccinate (Carophyll [®] Stay [®] Pink 10% CWS) for salmonids, crustaceans and other fish. EFSA Journal, 2019, 17, e05920.	1.8	11
366	Analysis of Seaweeds from South West England as a Biorefinery Feedstock. Applied Sciences (Switzerland), 2019, 9, 4456.	2.5	13
367	Antioxidant activity of biopigment fractions from golden apple snail eggs (Pomacea canaliculata). IOP Conference Series: Earth and Environmental Science, 2019, 404, 012003.	0.3	0
368	ANTI-INFLAMMATORY ACTIVITY OF METHANOL EXTRACT OF NIEBUHRIA APETALA (ROTH) DUNN " IN VITRO MODELS. Asian Journal of Pharmaceutical and Clinical Research, 0, , 278-281.	0.3	8
369	Biocompatible protic ionic liquids-based microwave-assisted liquid-solid extraction of astaxanthin from Haematococcus pluvialis. Industrial Crops and Products, 2019, 141, 111809.	5.2	31
370	Microalgal Carotenoids: A Review of Production, Current Markets, Regulations, and Future Direction. Marine Drugs, 2019, 17, 640.	4.6	273
371	Physical Stability of Astaxanthin from <i>Haematococcus pluvialis</i> Loaded in Micromulsion as a Cosmetic Ingredient for Melanogenesis Inhibition. Key Engineering Materials, 0, 819, 157-162.	0.4	1
372	Time-resolved carotenoid profiling and transcriptomic analysis reveal mechanism of carotenogenesis for astaxanthin synthesis in the oleaginous green alga Chromochloris zofingiensis. Biotechnology for Biofuels, 2019, 12, 287.	6.2	39
373	Astaxanthin reduces perfluorooctanoic acid cytotoxicity in Saccharomyces cerevisiae. Toxicology Research, 2019, 8, 1009-1015.	2.1	4
374	Astaxanthin Inhibits Mitochondrial Permeability Transition Pore Opening in Rat Heart Mitochondria. Antioxidants, 2019, 8, 576.	5.1	28
375	Green Chemistry Extractions of Carotenoids from Daucus carota L. "Supercritical Carbon Dioxide and Enzyme-Assisted Methods. Molecules, 2019, 24, 4339.	3.8	37
376	Astaxanthin: How much is too much? A safety review. Phytotherapy Research, 2019, 33, 3090-3111.	5.8	88
377	Optimized nonionic emulsifier for the efficient delivery of astaxanthin nanodispersions to retina: <i>in vivo</i> and <i>ex vivo</i> evaluations. Drug Delivery, 2019, 26, 1222-1234.	5.7	9
378	<p></p>The Role of the Reactive Oxygen Species Scavenger Agent, Astaxanthin, in the Protection of Cisplatin-Treated Patients Against Hearing Loss</p>, Drug Design, Development and Therapy, 2019, Volume 13, 4291-4303.	4.3	12
380	Biomarkers of meat and seafood intake: an extensive literature review. Genes and Nutrition, 2019, 14, 35.	2.5	69
381	Protective role of heme oxygenase-1 in fatty liver ischemia " reperfusion injury. Medical Molecular Morphology, 2019, 52, 61-72.	1.0	34
382	A new approach to promote astaxanthin accumulation via Na ₂ WO ₄ in Haematococcus pluvialis. Journal of Oceanology and Limnology, 2019, 37, 176-185.	1.3	10
383	Preparation of astaxanthin mask from Phaffia rhodozyma and its evaluation. Process Biochemistry, 2019, 79, 195-202.	3.7	19

#	ARTICLE	IF	CITATIONS
384	Microbial platforms to produce commercially vital carotenoids at industrial scale: an updated review of critical issues. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2019, 46, 657-674.	3.0	85
385	Neuroprotective role of astaxanthin in hippocampal insulin resistance induced by A β peptides in animal model of Alzheimer's disease. <i>Biomedicine and Pharmacotherapy</i> , 2019, 110, 47-58.	5.6	84
386	Properties and bioavailability assessment of shrimp astaxanthin loaded liposomes. <i>Food Science and Biotechnology</i> , 2019, 28, 529-537.	2.6	31
387	Protective effect of astaxanthin against contrast-induced acute kidney injury via SIRT1-p53 pathway in rats. <i>International Urology and Nephrology</i> , 2019, 51, 351-358.	1.4	28
388	Differences between Motile and Nonmotile Cells of <i>Haematococcus pluvialis</i> in the Production of Astaxanthin at Different Light Intensities. <i>Marine Drugs</i> , 2019, 17, 39.	4.6	20
389	Astaxanthin but not quercetin preserves mitochondrial integrity and function, ameliorates oxidative stress, and reduces heat-induced skeletal muscle injury. <i>Journal of Cellular Physiology</i> , 2019, 234, 13292-13302.	4.1	35
390	Ionic liquid as an effective solvent for cell wall deconstructing through astaxanthin extraction from <i>Haematococcus pluvialis</i> . <i>International Journal of Food Science and Technology</i> , 2019, 54, 583-590.	2.7	34
391	Thermal stability and oral absorbability of astaxanthin esters from <i>Haematococcus pluvialis</i> in Balb/c mice. <i>Journal of the Science of Food and Agriculture</i> , 2019, 99, 3662-3671.	3.5	41
392	Light induces carotenoids accumulation in a heterotrophic docosahexaenoic acid producing microalga, <i>Cryptocodinium</i> sp. SUN. <i>Bioresource Technology</i> , 2019, 276, 177-182.	9.6	21
393	Astaxanthin accumulation in <i>Haematococcus pluvialis</i> observed through Fourier-transform infrared microspectroscopy imaging. <i>Journal of Molecular Structure</i> , 2019, 1182, 119-122.	3.6	4
394	In vitro studies of the neuroprotective activities of astaxanthin and fucoxanthin against amyloid beta (A β 1-42) toxicity and aggregation. <i>Neurochemistry International</i> , 2019, 124, 215-224.	3.8	84
395	Carotenoids in five aeroterrestrial strains from <i>Vischeria/Eustigmatos</i> group: updating the pigment pattern of Eustigmatophyceae. <i>Biotechnology and Biotechnological Equipment</i> , 2019, 33, 250-267.	1.3	14
396	Oxidation evaluation of free astaxanthin and astaxanthin esters in Pacific white shrimp during iced storage and frozen storage. <i>Journal of the Science of Food and Agriculture</i> , 2019, 99, 2226-2235.	3.5	19
397	Effects of carbendazim and astaxanthin co-treatment on the proliferation of MCF-7 breast cancer cells. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 2019, 55, 113-119.	1.5	29
398	Genome and Transcriptome Sequencing of the Astaxanthin-Producing Green Microalga, <i>Haematococcus pluvialis</i> . <i>Genome Biology and Evolution</i> , 2019, 11, 166-173.	2.5	52
399	Astaxanthin from <i>Haematococcus pluvialis</i> Microencapsulated by Spray Drying: Characterization and Antioxidant Activity. <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2019, 96, 93-102.	1.9	19
400	Selectable marker recycling in the nonconventional yeast <i>Xanthophyllomyces dendrorhous</i> by transient expression of Cre on a genetically unstable vector. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 963-971.	3.6	14
401	Astaxanthin, Lutein, and Zeaxanthin. , 2019, , 19-25.		2

#	ARTICLE	IF	CITATIONS
402	Highly efficient preparation of free all- <i>trans</i> -astaxanthin from <i>Haematococcus pluvialis</i> extract by a rapid biocatalytic method based on crude extracellular enzyme extract. <i>International Journal of Food Science and Technology</i> , 2019, 54, 376-386.	2.7	3
403	Industrial potential of carotenoid pigments from microalgae: Current trends and future prospects. <i>Critical Reviews in Food Science and Nutrition</i> , 2019, 59, 1880-1902.	10.3	208
404	Macroalgae as a sustainable aquafeed ingredient. <i>Reviews in Aquaculture</i> , 2019, 11, 458-492.	9.0	144
405	A review of the multiple benefits of mussel farming. <i>Reviews in Aquaculture</i> , 2020, 12, 204-223.	9.0	60
406	Process Simulation and Techno Economic Analysis of Astaxanthin Production from Agro-Industrial Wastes. <i>Waste and Biomass Valorization</i> , 2020, 11, 943-954.	3.4	20
407	Applications of microalga <i>Chlorella vulgaris</i> in aquaculture. <i>Reviews in Aquaculture</i> , 2020, 12, 328-346.	9.0	117
408	Enhancing production of microalgal biopigments through metabolic and genetic engineering. <i>Critical Reviews in Food Science and Nutrition</i> , 2020, 60, 391-405.	10.3	83
409	Protective effects of astaxanthin on skin: Recent scientific evidence, possible mechanisms, and potential indications. <i>Journal of Cosmetic Dermatology</i> , 2020, 19, 22-27.	1.6	40
410	Measurement of astaxanthin and squalene diffusivities in compressed liquid ethyl acetate by Taylor-Aris dispersion method. <i>Separation and Purification Technology</i> , 2020, 234, 116046.	7.9	9
411	Enhanced coproduction of astaxanthin and lipids by the green microalga <i>Chromochloris zofingiensis</i> : Selected phytohormones as positive stimulators. <i>Bioresource Technology</i> , 2020, 295, 122242.	9.6	45
412	Maintenance of mitochondrial function by astaxanthin protects against bisphenol A-induced kidney toxicity in rats. <i>Biomedicine and Pharmacotherapy</i> , 2020, 121, 109629.	5.6	30
413	Biotechnological production of high-valued algal astaxanthin and lutein under different growth conditions. , 2020, , 191-220.		3
414	Enhanced extraction of astaxanthin using aqueous biphasic systems composed of ionic liquids and potassium phosphate. <i>Food Chemistry</i> , 2020, 309, 125672.	8.2	36
415	Electrochemistry as a screening method in determination of carotenoids in crustacean samples used in everyday diet. <i>Food Chemistry</i> , 2020, 309, 125706.	8.2	9
416	Physicochemical parameters, lipids stability, and volatiles profile of vacuum-packaged fresh Atlantic salmon (<i>Salmo salar</i>) loins preserved by hyperbaric storage at 10°C. <i>Food Research International</i> , 2020, 127, 108740.	6.2	31
417	Efficient and environmentally friendly method for carotenoid extraction from <i>Paracoccus carotinifaciens</i> utilizing naturally occurring Z-isomerization-accelerating catalysts. <i>Process Biochemistry</i> , 2020, 89, 146-154.	3.7	45
418	Transgenic microalgae as bioreactors. <i>Critical Reviews in Food Science and Nutrition</i> , 2020, 60, 3195-3213.	10.3	18
419	Effect of astaxanthin on metabolic cataract in rats with type 1 diabetes mellitus. <i>Experimental and Molecular Pathology</i> , 2020, 113, 104372.	2.1	16

#	ARTICLE	IF	CITATIONS
420	Exposure to diclofop-methyl induces cardiac developmental toxicity in zebrafish embryos. <i>Environmental Pollution</i> , 2020, 259, 113926.	7.5	45
421	Characterization of a Typeâ€2 Diacylglycerol Acyltransferase from <i>Haematococcus pluvialis</i> Reveals Possible Allostery of the Recombinant Enzyme. <i>Lipids</i> , 2020, 55, 425-433.	1.7	7
422	Primary metabolism is associated with the astaxanthin biosynthesis in the green algae <i>Haematococcus pluvialis</i> under light stress. <i>Algal Research</i> , 2020, 46, 101768.	4.6	41
423	Thermodynamic, viscoelastic and electrical properties of lipid membranes in the presence of astaxanthin. <i>Biophysical Chemistry</i> , 2020, 258, 106318.	2.8	11
424	Astaxanthin isomers: Selective distribution and isomerization in aquatic animals. <i>Aquaculture</i> , 2020, 520, 734915.	3.5	47
425	Calanus oil in the treatment of obesity-related low-grade inflammation, insulin resistance, and atherosclerosis. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 967-979.	3.6	24
426	Study on mechanism of synthetic astaxanthin and <i>Haematococcus pluvialis</i> improving the growth performance and antioxidant capacity under acute hypoxia stress of golden pompano (<i>Trachinotus</i>) pathway. <i>Aquaculture</i> , 2020, 518, 734657.	3.5	51
427	Modular engineering for microbial production of carotenoids. <i>Metabolic Engineering Communications</i> , 2020, 10, e00118.	3.6	72
428	Astaxanthin Encapsulated in Biodegradable Calcium Alginate Microspheres for the Treatment of Hepatocellular Carcinoma In Vitro. <i>Applied Biochemistry and Biotechnology</i> , 2020, 191, 511-527.	2.9	13
429	Biorefinery of Microalgae for Nonfuel Products. , 2020, , 197-209.		6
430	Distinctive nutrient designs using statistical approach coupled with light feeding strategy to improve the <i>Haematococcus pluvialis</i> growth performance and astaxanthin accumulation. <i>Bioresource Technology</i> , 2020, 300, 122594.	9.6	20
431	Trends in use, pharmacology, and clinical applications of emerging herbal nutraceuticals. <i>British Journal of Pharmacology</i> , 2020, 177, 1227-1240.	5.4	187
432	Transcriptome analysis of <i>Haematococcus pluvialis</i> of multiple defensive systems against nitrogen starvation. <i>Enzyme and Microbial Technology</i> , 2020, 134, 109487.	3.2	31
433	Recent developments in supercritical fluid extraction of bioactive compounds from microalgae: Role of key parameters, technological achievements and challenges. <i>Journal of CO2 Utilization</i> , 2020, 36, 196-209.	6.8	145
434	New strategies enhancing feasibility of microalgal cultivations. <i>Studies in Surface Science and Catalysis</i> , 2020, 179, 287-316.	1.5	10
435	Xanthophyll: Health benefits and therapeutic insights. <i>Life Sciences</i> , 2020, 240, 117104.	4.3	43
436	Marine Pharmacology in 2014â€“2015: Marine Compounds with Antibacterial, Antidiabetic, Antifungal, Anti-Inflammatory, Antiprotozoal, Antituberculosis, Antiviral, and Anthelmintic Activities; Affecting the Immune and Nervous Systems, and Other Miscellaneous Mechanisms of Action. <i>Marine Drugs</i> , 2020, 18, 5.	4.6	66
437	Astaxanthin Suppresses PM2.5-Induced Neuroinflammation by Regulating Akt Phosphorylation in BV-2 Microglial Cells. <i>International Journal of Molecular Sciences</i> , 2020, 21, 7227.	4.1	45

#	ARTICLE	IF	CITATIONS
438	Hypoglycaemic effect of all-trans astaxanthin through inhibiting α -glucosidase. <i>Journal of Functional Foods</i> , 2020, 74, 104168.	3.4	16
439	Biotechnology applied to <i>Haematococcus pluvialis</i> Fotow: challenges and prospects for the enhancement of astaxanthin accumulation. <i>Journal of Applied Phycology</i> , 2020, 32, 3831-3852.	2.8	20
440	Kidney-targeted astaxanthin natural antioxidant nanosystem for diabetic nephropathy therapy. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2020, 156, 143-154.	4.3	34
441	Astaxanthin inhibits alcohol-induced inflammation and oxidative stress in macrophages in a sirtuin 1-dependent manner. <i>Journal of Nutritional Biochemistry</i> , 2020, 85, 108477.	4.2	25
442	Astaxanthin biosynthesis in transgenic <i>Dunaliella salina</i> (Chlorophyceae) enhanced tolerance to high irradiation stress. <i>South African Journal of Botany</i> , 2020, 133, 132-138.	2.5	9
443	Cytoprotective Effect of Astaxanthin in a Model of Normal Intraocular Pressure Glaucoma. <i>Journal of Ophthalmology</i> , 2020, 2020, 1-6.	1.3	9
444	Astaxanthin Inhibits p70 S6 Kinase 1 Activity to Sensitize Insulin Signaling. <i>Marine Drugs</i> , 2020, 18, 495.	4.6	5
445	Inflammation response after the cessation of chronic arsenic exposure and post-treatment of natural astaxanthin in liver: potential role of cytokine-mediated cell-cell interactions. <i>Food and Function</i> , 2020, 11, 9252-9262.	4.6	57
447	Thermal stability of astaxanthin in oils for its use in fish food technology. <i>Animal Feed Science and Technology</i> , 2020, 270, 114668.	2.2	12
448	Biotechnological production of astaxanthin from the microalga <i>Haematococcus pluvialis</i> . <i>Biotechnology Advances</i> , 2020, 43, 107602.	11.7	107
449	Pharmacological activation of Nrf2 promotes wound healing. <i>European Journal of Pharmacology</i> , 2020, 886, 173395.	3.5	42
450	Tailoring cyanobacteria as a new platform for highly efficient synthesis of astaxanthin. <i>Metabolic Engineering</i> , 2020, 61, 275-287.	7.0	43
451	Impact of Astaxanthin on Diabetes Pathogenesis and Chronic Complications. <i>Marine Drugs</i> , 2020, 18, 357.	4.6	72
452	Transcriptome Analysis of the Inhibitory Effect of Astaxanthin on <i>Helicobacter pylori</i> -Induced Gastric Carcinoma Cell Motility. <i>Marine Drugs</i> , 2020, 18, 365.	4.6	4
453	Saponification to improve the antioxidant activity of astaxanthin extracts from <i>Penaeus sinensis</i> (<i>Solenocera crassicornis</i>) by-products and intervention effect on Paracetamol-induced acute hepatic injury in rat. <i>Journal of Functional Foods</i> , 2020, 73, 104150.	3.4	11
454	Network Pharmacology Combined with Transcriptional Analysis to Unveil the Biological Basis of Astaxanthin in Reducing the Oxidative Stress Induced by Diabetes Mellitus, Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy, 2020, Volume 13, 4281-4295.	2.4	5
455	Astaxanthin and its Effects in Inflammatory Responses and Inflammation-Associated Diseases: Recent Advances and Future Directions. <i>Molecules</i> , 2020, 25, 5342.	3.8	99
456	A step to shell biorefinery—Extraction of astaxanthin-rich oil, protein, chitin, and chitosan from shrimp processing waste. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 205-214.	4.6	18

#	ARTICLE	IF	CITATIONS
457	Inhibitory effects of astaxanthin on postovulatory porcine oocyte aging in vitro. <i>Scientific Reports</i> , 2020, 10, 20217.	3.3	27
458	Skin Pigmentation in Gilthead Seabream (<i>Sparus aurata</i> L.) Fed Conventional and Novel Protein Sources in Diets Deprived of Fish Meal. <i>Animals</i> , 2020, 10, 2138.	2.3	14
459	Development and Evaluation of Astaxanthin as Nanostructure Lipid Carriers in Topical Delivery. <i>AAPS PharmSciTech</i> , 2020, 21, 318.	3.3	16
460	Properties of Carotenoids in Fish Fitness: A Review. <i>Marine Drugs</i> , 2020, 18, 568.	4.6	50
461	<p>Potential Antioxidant and Wound Healing Effect of Nano-Liposomal with High Loading Amount of Astaxanthin</p>. <i>International Journal of Nanomedicine</i> , 2020, Volume 15, 9231-9240.	6.7	24
462	Antioxidant Molecules from Marine Fungi: Methodologies and Perspectives. <i>Antioxidants</i> , 2020, 9, 1183.	5.1	39
463	Natural Antioxidants: A Novel Therapeutic Approach to Autism Spectrum Disorders?. <i>Antioxidants</i> , 2020, 9, 1186.	5.1	31
464	Anti-Apoptotic Effects of Carotenoids in Neurodegeneration. <i>Molecules</i> , 2020, 25, 3453.	3.8	60
465	The effects of astaxanthin supplementation on obesity, blood pressure, CRP, glycemic biomarkers, and lipid profile: A meta-analysis of randomized controlled trials. <i>Pharmacological Research</i> , 2020, 161, 105113.	7.1	37
466	Chemical Transformation of Astaxanthin from <i>Haematococcus pluvialis</i> Improves Its Antioxidative and Anti-inflammatory Activities. <i>ACS Omega</i> , 2020, 5, 19120-19130.	3.5	16
467	Recent Advances in Astaxanthin Micro/Nanoencapsulation to Improve Its Stability and Functionality as a Food Ingredient. <i>Marine Drugs</i> , 2020, 18, 406.	4.6	59
468	Extraction of lipids and astaxanthin from crustacean by-products: A review on supercritical CO ₂ extraction. <i>Trends in Food Science and Technology</i> , 2020, 103, 94-108.	15.1	66
469	Structures of Astaxanthin and Their Consequences for Therapeutic Application. <i>International Journal of Food Science</i> , 2020, 2020, 1-16.	2.0	75
470	Protective Effect of Astaxanthin on Blue Light Light-Emitting Diode-Induced Retinal Cell Damage via Free Radical Scavenging and Activation of PI3K/Akt/Nrf2 Pathway in 661W Cell Model. <i>Marine Drugs</i> , 2020, 18, 387.	4.6	20
471	Effect of increased oxygen availability and astaxanthin supplementation on the growth, maturation and developmental competence of bovine oocytes derived from early antral follicles. <i>Theriogenology</i> , 2020, 157, 341-349.	2.1	8
472	Effects of astaxanthin supplementation on the freezability, lipid peroxidation, antioxidant enzyme activities and post-thawing fertility of ram semen. <i>Small Ruminant Research</i> , 2020, 192, 106213.	1.2	7
473	Astaxanthin recovery from Atlantic shrimp (<i>Pandalus borealis</i>) processing materials. <i>Bioresource Technology Reports</i> , 2020, 11, 100535.	2.7	19
474	Docosahexaenoic acid-acylated astaxanthin ester exhibits superior performance over non-esterified astaxanthin in preventing behavioral deficits coupled with apoptosis in MPTP-induced mice with Parkinson's disease. <i>Food and Function</i> , 2020, 11, 8038-8050.	4.6	32

#	ARTICLE	IF	CITATIONS
475	Astaxanthin protects retinal ganglion cells from acute glaucoma via the Nrf2/HO-1 pathway. <i>Journal of Chemical Neuroanatomy</i> , 2020, 110, 101876.	2.1	16
476	Astaxanthin-loaded zein/calcium alginate composite microparticles: Characterization, molecular interaction and release kinetics in fatty food simulant system. <i>LWT - Food Science and Technology</i> , 2020, 134, 110146.	5.2	17
477	Effects of dietary supplementation of natural astaxanthin from <i>Haematococcus pluvialis</i> on antioxidant capacity, lipid metabolism, and accumulation in the egg yolk of laying hens. <i>Poultry Science</i> , 2020, 99, 5874-5882.	3.4	33
478	Low Dose Astaxanthin Treatments Trigger the Hormesis of Human Astrogloma Cells by Up-Regulating the Cyclin-Dependent Kinase and Down-Regulated the Tumor Suppressor Protein P53. <i>Biomedicines</i> , 2020, 8, 434.	3.2	9
479	Nutrigenetics of antioxidant enzymes and micronutrient needs in the context of viral infections. <i>Nutrition Research Reviews</i> , 2021, 34, 174-184.	4.1	3
480	Isoproterenol-Induced Permeability Transition Pore-Related Dysfunction of Heart Mitochondria Is Attenuated by Astaxanthin. <i>Biomedicines</i> , 2020, 8, 437.	3.2	13
481	Economic Evaluation and Techno-Economic Sensitivity Analysis of a Mass Integrated Shrimp Biorefinery in North Colombia. <i>Polymers</i> , 2020, 12, 2397.	4.5	16
482	A review on microalgae biofuel and biorefinery: challenges and way forward. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 0, , 1-24.	2.3	17
485	Antioxidant in a model biomembrane – astaxanthin and its esters mixed with DPPC in Langmuir films. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 889, 012028.	0.6	0
487	Astaxanthin targets PI3K/Akt signaling pathway toward potential therapeutic applications. <i>Food and Chemical Toxicology</i> , 2020, 145, 111714.	3.6	50
488	Oxidative Stress and Marine Carotenoids: Application by Using Nanoformulations. <i>Marine Drugs</i> , 2020, 18, 423.	4.6	35
489	Astaxanthin and other Nutrients from <i>Haematococcus pluvialis</i> – Multifunctional Applications. <i>Marine Drugs</i> , 2020, 18, 459.	4.6	96
490	A comparative study on astaxanthin recovery from shrimp wastes using lactic fermentation and green solvents: an applied model on minced <i>Tilapia</i> . <i>Journal of Radiation Research and Applied Sciences</i> , 2020, 13, 594-605.	1.2	5
491	Stabilized Nanoemulsions of Astaxanthin Esters of Known Fatty-Acid Composition. <i>Pharmaceutical Chemistry Journal</i> , 2020, 54, 811-815.	0.8	2
492	Coordinated Expression of Astaxanthin Biosynthesis Genes for Improved Astaxanthin Production in <i>Escherichia coli</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 14917-14927.	5.2	38
493	Novel Insights into the Biotechnological Production of <i>Haematococcus pluvialis</i> -Derived Astaxanthin: Advances and Key Challenges to Allow Its Industrial Use as Novel Food Ingredient. <i>Journal of Marine Science and Engineering</i> , 2020, 8, 789.	2.6	67
494	Development and Evaluation of Astaxanthin Orally Disintegrating Tablets Prepared from Coprocessed Excipients for Use in the Elderly. <i>Key Engineering Materials</i> , 0, 859, 295-300.	0.4	1
496	On a Beam of Light: Photoprotective Activities of the Marine Carotenoids Astaxanthin and Fucoxanthin in Suppression of Inflammation and Cancer. <i>Marine Drugs</i> , 2020, 18, 544.	4.6	16

#	ARTICLE	IF	CITATIONS
497	Astaxanthin Ameliorated Parvalbumin-Positive Neuron Deficits and Alzheimer's Disease-Related Pathological Progression in the Hippocampus of AppNL-G-F/NL-G-F Mice. <i>Frontiers in Pharmacology</i> , 2020, 11, 307.	3.5	27
498	Astaxanthin Modulates Apoptotic Molecules to Induce Death of SKBR3 Breast Cancer Cells. <i>Marine Drugs</i> , 2020, 18, 266.	4.6	14
499	Astaxanthin Is Ketolated from Zeaxanthin Independent of Fatty Acid Synthesis in <i>Chromochloris zofingiensis</i> . <i>Plant Physiology</i> , 2020, 183, 883-897.	4.8	50
500	Clinical Applications of Astaxanthin in the Treatment of Ocular Diseases: Emerging Insights. <i>Marine Drugs</i> , 2020, 18, 239.	4.6	63
501	Microbial astaxanthin biosynthesis: recent achievements, challenges, and commercialization outlook. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 5725-5737.	3.6	90
502	Astaxanthin from <i>Haematococcus pluvialis</i> ameliorates the chemotherapeutic drug (doxorubicin) induced liver injury through the Keap1/Nrf2/HO-1 pathway in mice. <i>Food and Function</i> , 2020, 11, 4659-4671.	4.6	35
503	In vitro and in vivo recombination of heterologous modules for improving biosynthesis of astaxanthin in yeast. <i>Microbial Cell Factories</i> , 2020, 19, 103.	4.0	16
504	Micro-algal astaxanthin could improve the antioxidant capability, immunity and ammonia resistance of juvenile Chinese mitten crab, <i>Eriocheir sinensis</i> . <i>Fish and Shellfish Immunology</i> , 2020, 102, 499-510.	3.6	46
505	Smart Method for Carotenoids Characterization in <i>Haematococcus pluvialis</i> Red Phase and Evaluation of Astaxanthin Thermal Stability. <i>Antioxidants</i> , 2020, 9, 422.	5.1	26
506	Bioactive molecules from protists: Perspectives in biotechnology. <i>European Journal of Protistology</i> , 2020, 75, 125720.	1.5	11
507	Transcriptome analysis reveals the potential mechanism of dietary carotenoids improving antioxidative capability and immunity of juvenile Chinese mitten crabs <i>Eriocheir sinensis</i> . <i>Fish and Shellfish Immunology</i> , 2020, 104, 359-373.	3.6	18
508	Neuroprotective effects of astaxanthin against oxygen and glucose deprivation damage via the PI3K/Akt/GSK3 β /Nrf2 signalling pathway in vitro. <i>Journal of Cellular and Molecular Medicine</i> , 2020, 24, 8977-8985.	3.6	44
509	Application of secondary amine switchable hydrophilicity solvents for astaxanthin extraction from wet <i>Haematococcus pluvialis</i> . <i>Algal Research</i> , 2020, 48, 101892.	4.6	11
510	Anti-inflammatory natural products. <i>Annual Reports in Medicinal Chemistry</i> , 2020, , 153-177.	0.9	7
511	Microalgae for biotechnological applications: Cultivation, harvesting and biomass processing. <i>Aquaculture</i> , 2020, 528, 735562.	3.5	93
512	Two-dimensional liquid chromatography analysis of all-trans, 9-cis, and 13-cis-astaxanthin in raw extracts from <i>Phaffia rhodozyma</i> . <i>Journal of Separation Science</i> , 2020, 43, 3206-3215.	2.5	7
513	<p></p>Astaxanthin in Liver Health and Disease: A Potential Therapeutic Agent<p>. <i>Drug Design, Development and Therapy</i> , 2020, Volume 14, 2275-2285.	4.3	48
514	Genomic and Metabolomic Analysis of Antarctic Bacteria Revealed Culture and Elicitation Conditions for the Production of Antimicrobial Compounds. <i>Biomolecules</i> , 2020, 10, 673.	4.0	10

#	ARTICLE	IF	CITATIONS
515	Bacterial Pigments: Sustainable Compounds With Market Potential for Pharma and Food Industry. <i>Frontiers in Sustainable Food Systems</i> , 2020, 4, .	3.9	69
516	Protective effect of astaxanthin against cisplatin-induced gastrointestinal toxicity in rats. <i>European Surgery - Acta Chirurgica Austriaca</i> , 2020, , 1.	0.7	2
517	Effect of Astaxanthin on Activation of Autophagy and Inhibition of Apoptosis in Helicobacter pylori-Infected Gastric Epithelial Cell Line AGS. <i>Nutrients</i> , 2020, 12, 1750.	4.1	27
518	Control of oral absorption of nutritional supplement using lipid-based formulations (LBFs): Application to the poorly water-soluble ingredient. <i>Journal of Drug Delivery Science and Technology</i> , 2020, 57, 101675.	3.0	3
519	Overview of carotenoids and beneficial effects on human health. , 2020, , 1-40.		10
520	Carotenoids as potential biocolorants: A case study of astaxanthin recovered from shrimp waste. , 2020, , 289-325.		9
521	Isotonic Beverage Pigmented with Water-Dispersible Emulsion from Astaxanthin Oleoresin. <i>Molecules</i> , 2020, 25, 841.	3.8	9
522	Stimulation of biomass and astaxanthin accumulation in <i>Haematococcus pluvialis</i> using low-temperature plasma (LTP). <i>Bioresource Technology Reports</i> , 2020, 9, 100385.	2.7	8
523	Combination therapy with astaxanthin and epidermal neural crest stem cells improves motor impairments and activates mitochondrial biogenesis in a rat model of spinal cord injury. <i>Mitochondrion</i> , 2020, 52, 125-134.	3.4	14
524	Astaxanthin-loaded polymer-lipid hybrid nanoparticles (ATX-LPN): assessment of potential otoprotective effects. <i>Journal of Nanobiotechnology</i> , 2020, 18, 53.	9.1	21
525	Protective Effect of Astaxanthin on Ochratoxin A-Induced Kidney Injury to Mice by Regulating Oxidative Stress-Related NRF2/KEAP1 Pathway. <i>Molecules</i> , 2020, 25, 1386.	3.8	44
526	Astaxanthin Prevents Mitochondrial Impairment Induced by Isoproterenol in Isolated Rat Heart Mitochondria. <i>Antioxidants</i> , 2020, 9, 262.	5.1	26
527	Astaxanthin production in a model cyanobacterium <i>Synechocystis</i> sp. PCC 6803. <i>Journal of General and Applied Microbiology</i> , 2020, 66, 116-120.	0.7	10
528	Potential Role of Antioxidants as Adjunctive Therapy in Chagas Disease. <i>Oxidative Medicine and Cellular Longevity</i> , 2020, 2020, 1-13.	4.0	17
529	Cyanobacterial pigments and their fluorescence characteristics: applications in research and industry. , 2020, , 55-72.		13
530	Astaxanthin (ATX) enhances the intestinal mucosal functions in immunodeficient mice. <i>Food and Function</i> , 2020, 11, 3371-3381.	4.6	30
531	Adjuvant Therapies in Diabetic Retinopathy as an Early Approach to Delay Its Progression: The Importance of Oxidative Stress and Inflammation. <i>Oxidative Medicine and Cellular Longevity</i> , 2020, 2020, 1-23.	4.0	34
532	Evaluation of Antarctic krill (<i>Euphausia superba</i>) meal supplementation in diets for olive flounder (<i>Paralichthys olivaceus</i>). <i>Aquaculture Research</i> , 2020, 51, 2291-2302.	1.8	16

#	ARTICLE	IF	CITATIONS
533	Integrated ultrasound-assisted liquid biphasic flotation for efficient extraction of astaxanthin from <i>Haematococcus pluvialis</i> . <i>Ultrasonics Sonochemistry</i> , 2020, 67, 105052.	8.2	83
534	High light boosts salinity stress-induced biosynthesis of astaxanthin and lipids in the green alga <i>Chromochloris zofingensis</i> . <i>Algal Research</i> , 2020, 50, 101976.	4.6	45
535	Draft Genome Sequence of the Astaxanthin-Producing Microalga <i>Haematococcus lacustris</i> Strain NIES-144. <i>Microbiology Resource Announcements</i> , 2020, 9, .	0.6	7
536	Astaxanthin as a Putative Geroprotector: Molecular Basis and Focus on Brain Aging. <i>Marine Drugs</i> , 2020, 18, 351.	4.6	35
537	Introducing nano/microencapsulated bioactive ingredients for extending the shelf-life of food products. <i>Advances in Colloid and Interface Science</i> , 2020, 282, 102210.	14.7	63
538	Enhanced Biomass and Astaxanthin Production of <i>Haematococcus pluvialis</i> by a Cell Transformation Strategy with Optimized Initial Biomass Density. <i>Marine Drugs</i> , 2020, 18, 341.	4.6	17
539	Preparation of astaxanthin by lipase-catalyzed hydrolysis from its esters in a slug-flow microchannel reactor. <i>Process Biochemistry</i> , 2020, 98, 241-246.	3.7	3
540	Astaxanthin attenuates oxidative stress and inflammatory responses in complete Freund-adjuvant-induced arthritis in rats. <i>Pharmacological Reports</i> , 2020, 72, 104-114.	3.3	37
541	Salicylic acid and aspirin stimulate growth of <i>Chlamydomonas</i> and inhibit lipoxygenase and chloroplast desaturase pathways. <i>Plant Physiology and Biochemistry</i> , 2020, 149, 256-265.	5.8	9
542	Comparison of effect of dietary supplementation with <i>Haematococcus pluvialis</i> powder and synthetic astaxanthin on carotenoid composition, concentration, esterification degree and astaxanthin isomers in ovaries, hepatopancreas, carapace, epithelium of adult female Chinese mitten crab (<i>Eriocheir sinensis</i>). <i>Aquaculture</i> , 2020, 523, 735146.	3.5	31
543	Hydrophilic Astaxanthin: PEGylated Astaxanthin Fights Diabetes by Enhancing the Solubility and Oral Absorbability. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 3649-3655.	5.2	22
544	Effects of dietary astaxanthin on growth, blood biochemistry, antioxidant, immune and inflammatory response in lipopolysaccharide-challenged <i>Channa argus</i> . <i>Aquaculture Research</i> , 2020, 51, 1980-1991.	1.8	17
545	The Role of Dietary Antioxidants in the Pathogenesis of Neurodegenerative Diseases and Their Impact on Cerebral Oxidoreductive Balance. <i>Nutrients</i> , 2020, 12, 435.	4.1	29
546	Astaxanthin anticancer effects are mediated through multiple molecular mechanisms: A systematic review. <i>Pharmacological Research</i> , 2020, 155, 104689.	7.1	91
547	Improved Tetanic Force and Mitochondrial Calcium Homeostasis by Astaxanthin Treatment in Mouse Skeletal Muscle. <i>Antioxidants</i> , 2020, 9, 98.	5.1	16
548	Microalgae as a promising and sustainable nutrition source for managed honey bees. <i>Archives of Insect Biochemistry and Physiology</i> , 2020, 104, e21658.	1.5	19
549	Terpene-Based Natural Deep Eutectic Systems as Efficient Solvents To Recover Astaxanthin from Brown Crab Shell Residues. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2246-2259.	6.7	66
550	Novel antioxidant astaxanthin-s-allyl cysteine biconjugate diminished oxidative stress and mitochondrial dysfunction to triumph diabetes in rat model. <i>Life Sciences</i> , 2020, 245, 117367.	4.3	15

#	ARTICLE	IF	CITATIONS
551	Re-assembled oleic acid-protein complexes as nano-vehicles for astaxanthin: Multispectral analysis and molecular docking. <i>Food Hydrocolloids</i> , 2020, 103, 105689.	10.7	37
552	Enhanced astaxanthin production in yeast via combined mutagenesis and evolution. <i>Biochemical Engineering Journal</i> , 2020, 156, 107519.	3.6	57
553	Protective Effects of Astaxanthin Supplementation against Ultraviolet-Induced Photoaging in Hairless Mice. <i>Biomedicines</i> , 2020, 8, 18.	3.2	30
554	A Quantitative Analysis Model Established to Determine the Concentration of Each Source in Mixed Astaxanthin from Different Sources. <i>Molecules</i> , 2020, 25, 628.	3.8	2
555	Enhancing Astaxanthin Biosynthesis by <i>Rhodospiridium toruloides</i> Mutants and Optimization of Medium Compositions Using Response Surface Methodology. <i>Processes</i> , 2020, 8, 497.	2.8	9
556	Dietary carotenoids in cancer chemoprevention and chemotherapy: A review of emerging evidence. <i>Pharmacological Research</i> , 2020, 157, 104830.	7.1	93
557	Oil and pigments from shrimp processing by-products: Extraction, composition, bioactivities and its application- A review. <i>Trends in Food Science and Technology</i> , 2020, 100, 307-319.	15.1	55
558	Enigmatic Microalgae from Aeroterrestrial and Extreme Habitats in Cosmetics: The Potential of the Untapped Natural Sources. <i>Cosmetics</i> , 2020, 7, 27.	3.3	27
559	Effect of astaxanthin in extenders on sperm quality and functional variables of frozen-thawed boar semen. <i>Animal Reproduction Science</i> , 2020, 218, 106478.	1.5	17
560	Astaxanthin n-Octanoic Acid Diester Ameliorates Insulin Resistance and Modulates Gut Microbiota in High-Fat and High-Sucrose Diet-Fed Mice. <i>International Journal of Molecular Sciences</i> , 2020, 21, 2149.	4.1	33
561	Astaxanthin alleviates gestational diabetes mellitus in mice through suppression of oxidative stress. <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , 2020, 393, 2517-2527.	3.0	26
562	Genome and Transcriptome Analyses Provide Insight Into the Omega-3 Long-Chain Polyunsaturated Fatty Acids Biosynthesis of <i>Schizochytrium limacinum</i> SR21. <i>Frontiers in Microbiology</i> , 2020, 11, 687.	3.5	20
563	Recovery of astaxanthin from shrimp (<i>Penaeus vannamei</i>) waste by ultrasonic-assisted extraction using ionic liquid-in-water microemulsions. <i>Food Chemistry</i> , 2020, 325, 126850.	8.2	33
564	Fourier transform infrared (FT-IR) spectroscopy of nanoencapsulated food ingredients. , 2020, , 347-410.		3
565	Comparative transcriptome analysis unveils mechanisms underlying the promoting effect of potassium iodide on astaxanthin accumulation in <i>Haematococcus pluvialis</i> under high light stress. <i>Aquaculture</i> , 2020, 525, 735279.	3.5	23
566	Astaxanthin attenuates <scp>d</scp>-galactose-induced brain aging in rats by ameliorating oxidative stress, mitochondrial dysfunction, and regulating metabolic markers. <i>Food and Function</i> , 2020, 11, 4103-4113.	4.6	37
567	Analysis of tetraterpenes and tetraterpenoids (carotenoids). , 2020, , 427-456.		5
568	High irradiance compensated with CO2 enhances the efficiency of <i>Haematococcus lacustris</i> growth. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2020, 26, e00444.	4.4	10

#	ARTICLE	IF	CITATIONS
569	Cloning, expression, and characterization of a novel plant type cryptochrome gene from the green alga <i>Haematococcus pluvialis</i> . <i>Protein Expression and Purification</i> , 2020, 172, 105633.	1.3	3
570	Therapeutic Effect of Seaweed Derived Xanthophyl Carotenoid on Obesity Management; Overview of the Last Decade. <i>International Journal of Molecular Sciences</i> , 2020, 21, 2502.	4.1	13
571	Effects of Astaxanthin Supplementation on Skin Health: A Systematic Review of Clinical Studies. <i>Journal of Dietary Supplements</i> , 2021, 18, 169-182.	2.6	29
572	Improving the cancer prevention/treatment role of carotenoids through various nano-delivery systems. <i>Critical Reviews in Food Science and Nutrition</i> , 2021, 61, 522-534.	10.3	61
573	Mathematical modeling of the release of food active compounds from viscoelastic matrices. <i>Journal of Food Engineering</i> , 2021, 288, 110240.	5.2	4
574	Characterization of strains of <i>Chlorella</i> from Abakaliki, Nigeria, for the production of high-value products under variable temperatures. <i>Journal of Applied Phycology</i> , 2021, 33, 275-285.	2.8	3
575	Intake of Lycopene and other Carotenoids and Incidence of Uterine Leiomyomata: A Prospective Ultrasound Study. <i>Journal of the Academy of Nutrition and Dietetics</i> , 2021, 121, 92-104.	0.8	8
576	Characterization and evaluation of inclusion complexes between astaxanthin esters with different molecular structures and hydroxypropyl- β -cyclodextrin. <i>Food Hydrocolloids</i> , 2021, 110, 106208.	10.7	28
577	Transcriptome analysis reveals pathways responsible for the promoting effect of sucrose on astaxanthin accumulation in <i>Haematococcus pluvialis</i> under high light condition. <i>Aquaculture</i> , 2021, 530, 735757.	3.5	28
578	Lipid Fraction from Industrial Crustacean Waste and Its Potential as a Supplement for the Feed Industry: A Case Study in Argentine Patagonia. <i>Waste and Biomass Valorization</i> , 2021, 12, 2311-2319.	3.4	11
579	Kinetic interactions of nanocomplexes between astaxanthin esters with different molecular structures and β -lactoglobulin. <i>Food Chemistry</i> , 2021, 335, 127633.	8.2	16
580	Correlating the influence of biochemical parameters in environment with pesticide tolerance of non-target algae. <i>Biologia (Poland)</i> , 2021, 76, 307-319.	1.5	5
581	Preparation, characterization and antioxidant activity of astaxanthin esters with different molecular structures. <i>Journal of the Science of Food and Agriculture</i> , 2021, 101, 2576-2583.	3.5	12
582	The Promising Effects of Astaxanthin on Lung Diseases. <i>Advances in Nutrition</i> , 2021, 12, 850-864.	6.4	19
583	Effects of supplemental dietary <i>Haematococcus pluvialis</i> on growth performance, antioxidant capacity, immune responses and resistance to <i>Vibrio harveyi</i> challenge of spotted sea bass <i>Lateolabrax maculatus</i> . <i>Aquaculture Nutrition</i> , 2021, 27, 355-365.	2.7	4
584	Enhanced photostability of anthocyanin dye for increased efficiency in natural dye sensitized solar cells. <i>Optik</i> , 2021, 227, 166053.	2.9	6
585	Review on extraction of polyhydroxyalkanoates and astaxanthin from food and beverage processing wastewater. <i>Journal of Water Process Engineering</i> , 2021, 40, 101775.	5.6	8
586	Novel, automated, semi-industrial modular photobioreactor system for cultivation of demanding microalgae that produce fine chemicals—The next story of <i>H. pluvialis</i> and astaxanthin. <i>Algal Research</i> , 2021, 53, 102151.	4.6	26

#	ARTICLE	IF	CITATIONS
587	An antarctic krill oil-based diet elicits neuroprotective effects by inhibiting oxidative stress and rebalancing the M1/M2 microglia phenotype in a cuprizone model for demyelination. <i>Journal of Functional Foods</i> , 2021, 76, 104309.	3.4	11
588	Preparation and characterization of <i>Haematococcus pluvialis</i> carotenoid-loaded PLGA nanocapsules in a gel system with antioxidant properties for topical application. <i>Journal of Drug Delivery Science and Technology</i> , 2021, 61, 102099.	3.0	16
589	Astaxanthin protects oxidative stress mediated DNA damage and enhances longevity in <i>Saccharomyces cerevisiae</i> . <i>Biogerontology</i> , 2021, 22, 81-100.	3.9	15
590	Influence of molecular structure of astaxanthin esters on their stability and bioavailability. <i>Food Chemistry</i> , 2021, 343, 128497.	8.2	45
591	Influence of oil matrixes on stability, antioxidant activity, bioaccessibility and bioavailability of astaxanthin ester. <i>Journal of the Science of Food and Agriculture</i> , 2021, 101, 1609-1617.	3.5	13
592	High-pressure extraction of astaxanthin from <i>Haematococcus pluvialis</i> . , 2021, , 355-373.		1
593	Astaxanthin production and technology in Vietnam and other Asian countries. , 2021, , 595-633.		2
594	Revealing mechanisms of algal astaxanthin production and bioengineering potential using multiomics. , 2021, , 181-208.		1
595	Bioextraction of astaxanthin adopting varied techniques and downstream processing methodologies. , 2021, , 313-339.		0
596	Preparation and characterization of glycosylated protein nanoparticles for astaxanthin mitochondria targeting delivery. <i>Food and Function</i> , 2021, 12, 7718-7727.	4.6	23
597	Storage stability of chia (<i>Salvia hispanica</i> L.) oil incorporated with astaxanthin. <i>Journal of Food Processing and Preservation</i> , 2021, 45, e15184.	2.0	4
598	Valorization of fruit and vegetable waste for bioactive pigments: extraction and utilization. , 2021, , 61-81.		4
599	Stability of astaxanthin during food processing and methods of preservation. , 2021, , 539-556.		1
600	Carotenoids as Food Products Components and Health Promoting Agents. <i>Food Bioactive Ingredients</i> , 2021, , 101-120.	0.4	0
601	Beneficial effects of astaxanthin in cosmeceuticals with focus on emerging market trends. , 2021, , 557-568.		2
602	Industrial perspective on downstream processing of <i>Haematococcus pluvialis</i> . , 2021, , 283-311.		2
603	Current knowledge on the health benefits of carotenoids: Focus on the scientific evidence. , 2021, , 693-717.		2
604	Overview of extraction of astaxanthin from <i>Haematococcus pluvialis</i> using CO ₂ supercritical fluid extraction technology vis-a-vis quality demands. , 2021, , 341-354.		7

#	ARTICLE	IF	CITATIONS
605	The physiology of astaxanthin production by carotenogenic microalgae. , 2021, , 19-35.		1
606	Anticancer properties of astaxanthin: A molecule of great promise. , 2021, , 427-445.		3
607	Importance of Downstream Processing of Natural Astaxanthin for Pharmaceutical Application. Frontiers in Chemical Engineering, 2021, 2, .	2.7	21
608	Crustacea (Carotenoids Namely Astaxanthins) Against Cancer. Food Bioactive Ingredients, 2021, , 145-178.	0.4	0
609	Reprogramming microorganisms for the biosynthesis of astaxanthin via metabolic engineering. Progress in Lipid Research, 2021, 81, 101083.	11.6	39
610	Carotenoids in diabetes, retinopathy, and cardiovascular risk. , 2021, , 123-152.		1
611	Carotenoid Production in Oleaginous Yeasts. Advances in Experimental Medicine and Biology, 2021, 1261, 153-163.	1.6	9
612	A Comprehensive Review on Different Microbial-Derived Pigments and Their Multipurpose Activities. , 2021, , 479-519.		3
613	Astaxanthin production by autotrophic cultivation of Haematococcus pluvialis: A success story. , 2021, , 71-89.		2
614	Astaxanthin-biological production and regulation for enhanced yields. , 2021, , 131-149.		0
615	Recent updates on the neuroprotective role of carotenoids: Astaxanthin and beyond. , 2021, , 719-740.		0
616	Comprehensive integrated overview of the experimental and clinical neuroprotective effect of astaxanthin. , 2021, , 469-494.		4
617	Storage stability studies of astaxanthin, oleoresins and emulsions, in products developed for human consumption. , 2021, , 741-771.		0
618	Safety assessment and pharmaceutical effects of astaxanthin: An overview. , 2021, , 569-591.		0
619	Utilization of astaxanthin from Haematococcus for its use in aquaculture and poultry industries. , 2021, , 635-646.		0
620	Engineered Maize Hybrids with Diverse Carotenoid Profiles and Potential Applications in Animal Feeding. Advances in Experimental Medicine and Biology, 2021, 1261, 95-113.	1.6	2
621	Astaxanthin Prevents Atrophy in Slow Muscle Fibers by Inhibiting Mitochondrial Reactive Oxygen Species via a Mitochondria-Mediated Apoptosis Pathway. Nutrients, 2021, 13, 379.	4.1	15
622	Carotenoids as Tools in Breast Cancer Therapy. , 2021, , 123-146.		0

#	ARTICLE	IF	CITATIONS
623	A comprehensive review on carotenoids in foods and feeds: <i>status quo</i> , applications, patents, and research needs. <i>Critical Reviews in Food Science and Nutrition</i> , 2022, 62, 1999-2049.	10.3	132
624	Tetraedron minimum, First Reported Member of Hydrodictyaceae to Accumulate Secondary Carotenoids. <i>Life</i> , 2021, 11, 107.	2.4	15
625	Prevention of NAFLD/NASH by Astaxanthin and Î ² -Cryptoxanthin. <i>Advances in Experimental Medicine and Biology</i> , 2021, 1261, 231-238.	1.6	7
626	Metabolic engineering of astaxanthin pathway and heterologous production in novel organisms. , 2021, , 151-179.		1
627	Turning leftover to treasure: An overview of astaxanthin from shrimp shell wastes. , 2021, , 253-279.		0
628	Astaxanthin nanoparticles from fabrication to applications in food formulations including regulatory issues. , 2021, , 519-537.		0
629	Nutraceuticals in hepatic diseases. , 2021, , 117-129.		10
630	Astaxanthin production from <i>Haematococcus pluvialis</i> by using illuminated photobioreactor. , 2021, , 209-224.		5
631	Astaxanthin in microalgae Eustigmatophyceae. , 2021, , 61-70.		0
632	Optimization of astaxanthin production processes from microalga <i>Haematococcus</i> . , 2021, , 91-120.		0
633	Astaxanthin from <i>Chromochloris zofingiensis</i> : Feasibility analysis. , 2021, , 37-59.		0
634	Astaxanthin for improved muscle function and enhanced physical performance. , 2021, , 447-467.		1
635	Recent developments in astaxanthin production from <i>Phaffia rhodozyma</i> and its applications. , 2021, , 225-251.		5
636	Astaxanthin from bacteria as a feed supplement for animals. , 2021, , 647-667.		5
637	Carotenoids Synthesis and Isomerism. , 2021, , 77-124.		1
638	Pigments from Antarctic bacteria and their biotechnological applications. <i>Critical Reviews in Biotechnology</i> , 2021, 41, 809-826.	9.0	31
639	Bioprocessing of marine crustacean sideâ€streams into bioactives: a review. <i>Journal of Chemical Technology and Biotechnology</i> , 2021, 96, 1465-1474.	3.2	16
640	Ultrasonic Self-Emulsification Nanocarriers for Cellular Enhanced Astaxanthin Delivery. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 2719-2728.	5.2	26

#	ARTICLE	IF	CITATIONS
641	Paraphysoderma sedebokerense Infection in Three Economically Valuable Microalgae: Host Preference Correlates with Parasite Fitness. Journal of Fungi (Basel, Switzerland), 2021, 7, 100.	3.5	6
642	Carotenoids and Some Other Pigments from Fungi and Yeasts. Metabolites, 2021, 11, 92.	2.9	53
643	Ameliorative effects of astaxanthin on brain tissues of alzheimerâ€™s disease-like model: cross talk between neuronal-specific microRNA-124 and related pathways. Molecular and Cellular Biochemistry, 2021, 476, 2233-2249.	3.1	17
644	Characterization of Molecular Species and Anti-Inflammatory Activity of Purified Phospholipids from Antarctic Krill Oil. Marine Drugs, 2021, 19, 124.	4.6	13
645	Isolation of Industrial Important Bioactive Compounds from Microalgae. Molecules, 2021, 26, 943.	3.8	64
646	Effect of Interfacial Ionic Layers on the Food-Grade O/W Emulsion Physical Stability and Astaxanthin Retention during Spray-Drying. Foods, 2021, 10, 312.	4.3	3
647	Astaxanthin Extraction from Marine Crustacean Waste Streams: An Integrate Approach between Microwaves and Supercritical Fluids. ACS Sustainable Chemistry and Engineering, 2021, 9, 3050-3059.	6.7	31
648	Natural antioxidants in diabetes treatment and management: prospects of astaxanthin. Critical Reviews in Food Science and Nutrition, 2022, 62, 5005-5028.	10.3	31
650	Biological and Therapeutic Effects of Troxerutin: Molecular Signaling Pathways Come into View. Journal of Pharmacopuncture, 2021, 24, 1-13.	1.1	19
651	Growth performance, antioxidant capacity, tissue fatty acid composition and lipid metabolism of juvenile green mud crab Scylla paramamosain in response to different dietary n-3 PUFA lipid sources. Aquaculture Reports, 2021, 19, 100599.	1.7	8
652	Utilization of Astaxanthin as a Synthetic Antioxidant Replacement for Emulsified Sausages. Antioxidants, 2021, 10, 407.	5.1	9
653	Nanonutraceuticals: The New Frontier of Supplementary Food. Nanomaterials, 2021, 11, 792.	4.1	34
654	Influence of O/W emulsion interfacial ionic membranes on the encapsulation efficiency and storage stability of powder microencapsulated astaxanthin. Food and Bioproducts Processing, 2021, 126, 143-154.	3.6	14
655	Marine Natural Products: Promising Candidates in the Modulation of Gut-Brain Axis towards Neuroprotection. Marine Drugs, 2021, 19, 165.	4.6	19
656	Z-Isomers of Astaxanthin Exhibit Greater Bioavailability and Tissue Accumulation Efficiency than the All-E-Isomer. Journal of Agricultural and Food Chemistry, 2021, 69, 3489-3495.	5.2	42
657	Prospects and development of algal-bacterial biotechnology in environmental management and protection. Biotechnology Advances, 2021, 47, 107684.	11.7	83
658	Xanthophylls from the Sea: Algae as Source of Bioactive Carotenoids. Marine Drugs, 2021, 19, 188.	4.6	94
659	Gum Arabic/Gelatin and Water-Soluble Soy Polysaccharides/Gelatin Blend Films as Carriers of Astaxanthinâ€”A Comparative Study of the Kinetics of Release and Antioxidant Properties. Polymers, 2021, 13, 1062.	4.5	17

#	ARTICLE	IF	CITATIONS
660	Municipal Wastewater: A Sustainable Source for the Green Microalgae <i>Chlorella vulgaris</i> Biomass Production. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2207.	2.5	7
661	Astaxanthin and Coenzyme Q10 are not synergistic against oxidative damage in cerulein-induced acute pancreatitis. <i>Journal of Surgery and Medicine</i> , 2021, 5, 307-310.	0.1	1
662	DFT and molecular dynamics studies of astaxanthin-metal ions (Cu ²⁺ and Zn ²⁺) complex to prevent glycosylated human serum albumin from possible unfolding. <i>Heliyon</i> , 2021, 7, e06548.	3.2	7
663	Carotenoids produced by the deep-sea bacterium <i>Erythrobacter citreus</i> LAMA 915: detection and proposal of their biosynthetic pathway. <i>Folia Microbiologica</i> , 2021, 66, 441-456.	2.3	5
664	Three step flow focusing enables image-based discrimination and sorting of late stage 1 <i>Haematococcus pluvialis</i> cells. <i>PLoS ONE</i> , 2021, 16, e0249192.	2.5	7
665	Medicinal Prospects of Antioxidants From Algal Sources in Cancer Therapy. <i>Frontiers in Pharmacology</i> , 2021, 12, 593116.	3.5	42
666	Functional Foods for the Management of Non-Alcoholic Fatty Liver Disease. , 0, , .		2
667	Astaxanthin protects against early acute kidney injury in severely burned rats by inactivating the TLR4/MyD88/NF- κ B axis and upregulating heme oxygenase-1. <i>Scientific Reports</i> , 2021, 11, 6679.	3.3	17
668	Development of Functional Acid Curd Cheese (Tvarog) with Antioxidant Activity Containing Astaxanthin from Shrimp Shells Preliminary Experiment. <i>Foods</i> , 2021, 10, 895.	4.3	10
670	Seafood Intake as a Method of Non-Communicable Diseases (NCD) Prevention in Adults. <i>Nutrients</i> , 2021, 13, 1422.	4.1	15
671	Protective effects of astaxanthin from <i>Haematococcus pluvialis</i> on the survival and oxidative stress of zebrafish embryos induced by microcystin-LR. <i>Journal of Applied Phycology</i> , 2021, 33, 2261-2271.	2.8	12
672	Molecular Mechanisms of Astaxanthin as a Potential Neurotherapeutic Agent. <i>Marine Drugs</i> , 2021, 19, 201.	4.6	38
673	Simultaneous improvement of astaxanthin and lipid production of <i>Haematococcus pluvialis</i> by using walnut shell extracts. <i>Algal Research</i> , 2021, 54, 102171.	4.6	14
674	The Incorporation of Carotenoids on Ready to Eat Foods Studied Through Their Stability During Extrusion Processing. <i>Food Engineering Reviews</i> , 2021, 13, 902.	5.9	0
675	Astaxanthin Reduces the Severity of Intestinal Damage in a Neonatal Rat Model of Necrotizing Enterocolitis. <i>American Journal of Perinatology</i> , 2021, , .	1.4	7
676	Shrimp Oil Extracted from Shrimp Processing By-Product Is a Rich Source of Omega-3 Fatty Acids and Astaxanthin-Esters, and Reveals Potential Anti-Adipogenic Effects in 3T3-L1 Adipocytes. <i>Marine Drugs</i> , 2021, 19, 259.	4.6	5
677	Estimation copeptin level and some biological criteria in induced male atherogenic rat. <i>Materials Today: Proceedings</i> , 2021, , .	1.8	0
678	Novel Self-Nano-Emulsifying Drug Delivery Systems Containing Astaxanthin for Topical Skin Delivery. <i>Pharmaceutics</i> , 2021, 13, 649.	4.5	20

#	ARTICLE	IF	CITATIONS
679	Effect of different levels of nanoliposomeâ€coated astaxanthin on growth performance, body proximate composition, liver enzyme activity and pigmentation of rainbow trout (<i>Oncorhynchus</i>)	1.8	10
680	Benefits of Exercise and Astaxanthin Supplementation: Are There Additive or Synergistic Effects?. Antioxidants, 2021, 10, 870.	5.1	2
681	Permeabilization of <i>Haematococcus pluvialis</i> and solid-liquid extraction of astaxanthin by CO ₂ -based alkyl carbamate ionic liquids. Chemical Engineering Journal, 2021, 411, 128510.	12.7	53
682	Prevention of cardiovascular disease through modulation of endothelial cell function by dietary seaweed intake. Phytomedicine Plus, 2021, 1, 100026.	2.0	13
683	Combination of mechanical and chemical extraction of astaxanthin from <i>Haematococcus pluvialis</i> and its properties of microencapsulation. Biocatalysis and Agricultural Biotechnology, 2021, 33, 101979.	3.1	13
684	Astaxanthin and Nrf2 Signaling Pathway: A Novel Target for New Therapeutic Approaches. Mini-Reviews in Medicinal Chemistry, 2022, 22, 312-321.	2.4	8
685	Fatty acids: facts vs. fiction. International Journal for Vitamin and Nutrition Research, 2023, 93, 268-288.	1.5	3
686	Metabolic engineering of astaxanthinâ€rich maize and its use in the production of biofortified eggs. Plant Biotechnology Journal, 2021, 19, 1812-1823.	8.3	10
687	The potential antiepileptic activity of astaxanthin in epileptic rats treated with valproic acid. Saudi Pharmaceutical Journal, 2021, 29, 418-426.	2.7	6
688	Extremophile microalgae as feedstock for highâ€value carotenoids: A review. International Journal of Food Science and Technology, 2021, 56, 4934-4941.	2.7	16
689	Identification and characterization of a novel Channelrhodopsin gene HpChR1 in <i>Haematococcus pluvialis</i> . Algal Research, 2021, 55, 102263.	4.6	2
690	Characterization of Astaxanthin Nanoemulsions Produced by Intense Fluid Shear through a Self-Throttling Nanometer Range Annular Orifice Valve-Based High-Pressure Homogenizer. Molecules, 2021, 26, 2856.	3.8	8
691	Potential applications of algae in biochemical and bioenergy sector. 3 Biotech, 2021, 11, 296.	2.2	22
692	Molecular characterization and functional analysis of scavenger receptor class B from black tiger shrimp (<i>Penaeus monodon</i>). Electronic Journal of Biotechnology, 2021, 51, 40-49.	2.2	7
693	The oleaginous astaxanthin-producing alga <i>Chromochloris zofingiensis</i> : potential from production to an emerging model for studying lipid metabolism and carotenogenesis. Biotechnology for Biofuels, 2021, 14, 119.	6.2	29
694	Characteristic Comparison of an Intraoral Thin Film Containing Astaxanthin Nanoemulsion Using Sodium Alginate and Gelatin Polymers. Turkish Journal of Pharmaceutical Sciences, 2021, 18, 289-295.	1.4	5
695	Synthetic biology for future food: Research progress and future directions. Future Foods, 2021, 3, 100025.	5.4	31
696	Histopathological and Biochemical Assessment of Neuroprotective Effects of Sodium Valproate and Lutein on the Pilocarpine Albino Rat Model of Epilepsy. Behavioural Neurology, 2021, 2021, 1-22.	2.1	4

#	ARTICLE	IF	CITATIONS
697	Fruit-Specific Expression of crtB, HpBHY, CrBKT and SILCYB in a Special Tomato Landrace Triggers Hyper Production of Carotenoids in the Fruit. <i>Journal of Plant Biology</i> , 2021, 64, 447-459.	2.1	3
698	Therapeutic potential of astaxanthin and superoxide dismutase in Alzheimer's disease. <i>Open Biology</i> , 2021, 11, 210013.	3.6	40
699	Valorization of Seafood Processing Discards: Bioconversion and Bio-Refinery Approaches. <i>Frontiers in Sustainable Food Systems</i> , 2021, 5, .	3.9	61
700	Enhancement of astaxanthin accumulation using black light in <i>Coelastrum</i> and <i>Monoraphidium</i> isolated from Malaysia. <i>Scientific Reports</i> , 2021, 11, 11708.	3.3	18
701	Improvement of morpho-physiological, ultrastructural and nutritional profiles in wheat seedlings through astaxanthin nanoparticles alleviating the cadmium toxicity. <i>Journal of Hazardous Materials</i> , 2022, 424, 126511.	12.4	40
702	Ketocarotenoids accumulation in the leaves of engineered <i>Brassica napus</i> restricts photosynthetic efficiency and plant growth. <i>Environmental and Experimental Botany</i> , 2021, 186, 104461.	4.2	2
703	Role of astaxanthin as an efficient antioxidant on the in vitro maturation and vitrification of porcine oocytes. <i>Theriogenology</i> , 2021, 167, 13-23.	2.1	25
704	Microalgae as feed ingredients: recent developments on their role in immunomodulation and gut microbiota of aquaculture species. <i>FEMS Microbiology Letters</i> , 2021, 368, .	1.8	17
705	Gibberellic acid-induced fatty acid metabolism and ABC transporters promote astaxanthin production in <i>Phaffia rhodozyma</i> . <i>Journal of Applied Microbiology</i> , 2022, 132, 390-400.	3.1	11
706	Astaxanthine attenuates cisplatin ototoxicity in vitro and protects against cisplatin-induced hearing loss in vivo. <i>Acta Pharmaceutica Sinica B</i> , 2022, 12, 167-181.	12.0	19
707	Functional Food for Rabbits. Current Approaches and Trends to Increase Functionality. <i>Food Reviews International</i> , 0, , 1-18.	8.4	1
708	Ubiquitousness of <i>Haloferax</i> and Carotenoid Producing Genes in Arabian Sea Coastal Biosystems of India. <i>Marine Drugs</i> , 2021, 19, 442.	4.6	5
709	Valorization of Fermented Shrimp Waste with Supercritical CO2 Conditions: Extraction of Astaxanthin and Effect of Simulated Gastrointestinal Digestion on Its Antioxidant Capacity. <i>Molecules</i> , 2021, 26, 4465.	3.8	7
710	Quantitative detection on metabolites of <i>Haematococcus pluvialis</i> by terahertz spectroscopy. <i>Computers and Electronics in Agriculture</i> , 2021, 186, 106223.	7.7	4
711	Mitochondrion as a Target of Astaxanthin Therapy in Heart Failure. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7964.	4.1	12
713	Astaxanthin Inhibits Interleukin-6 Expression in Cerulein/Resistin-Stimulated Pancreatic Acinar Cells. <i>Mediators of Inflammation</i> , 2021, 2021, 1-14.	3.0	10
714	Advances and trends in biotechnological production of natural astaxanthin by <i>Phaffia rhodozyma</i> yeast. <i>Critical Reviews in Food Science and Nutrition</i> , 2023, 63, 1862-1876.	10.3	27
715	Characterizing Vegetable and Fruit Intake in a Remote Alaska Native Community Using Reflection Spectroscopy and 24-Hour Recalls. <i>Journal of Nutrition Education and Behavior</i> , 2021, 53, 712-718.	0.7	8

#	ARTICLE	IF	CITATIONS
716	Antitumor Effects of Astaxanthin on Esophageal Squamous Cell Carcinoma by up-Regulation of PPAR β . Nutrition and Cancer, 2022, 74, 1399-1410.	2.0	6
717	Evaluation and improvement of storage stability of astaxanthin isomers in oils and fats. Food Chemistry, 2021, 352, 129371.	8.2	26
718	Astaxanthin from <i>Haematococcus pluvialis</i> : processes, applications, and market. Preparative Biochemistry and Biotechnology, 2022, 52, 598-609.	1.9	22
719	Docosahexaenoic Acid-Acylated Astaxanthin Esters Exhibit Superior Renal Protective Effect to Recombination of Astaxanthin with DHA via Alleviating Oxidative Stress Coupled with Apoptosis in Vancomycin-Treated Mice with Nephrotoxicity. Marine Drugs, 2021, 19, 499.	4.6	1
720	Kinetic and thermodynamic insights into the interaction of Ag $^{+}$ with astaxanthin and aggregation behavior of Ag $^{+}$: Surface plasmon resonance, microscopic, and molecular docking studies. Biophysical Chemistry, 2021, 275, 106612.	2.8	5
721	Screening of plant oils promoting growth of the red yeast Xanthophyllomyces dendrorhous with astaxanthin and fatty acid production. Biocatalysis and Agricultural Biotechnology, 2021, 35, 102101.	3.1	6
722	Study on the Enhancement of Immune Function of Astaxanthin from Haematococcus pluvialis. Foods, 2021, 10, 1847.	4.3	9
723	Astaxanthin protective barrier and its ability to improve the health in patients with COVID-19. Iranian Journal of Microbiology, 2021, 13, 434-441.	0.8	10
724	Wastewater-based microalgal biorefineries for the production of astaxanthin and co-products: Current status, challenges and future perspectives. Bioresource Technology, 2021, 342, 126018.	9.6	22
725	Effects of duration and supplementation dose with astaxanthin on egg fortification. Poultry Science, 2021, 100, 101304.	3.4	8
726	Enhanced recovery of astaxanthin from recombinant Kluyveromyces marxianus with ultrasonication-assisted alcohol/salt aqueous biphasic system. Journal of Bioscience and Bioengineering, 2021, 132, 513-518.	2.2	3
727	The improvement of insulin resistance and the antioxidant capacity in type 2 diabetes mellitus rats with whiteleg shrimp shell powder (<i>Litopenaeus vannamei</i>). Potravinarstvo, 0, 15, 703-711.	0.6	1
728	Recent Updates on Marine Cancer-Preventive Compounds. Marine Drugs, 2021, 19, 558.	4.6	15
729	Exogenous application of melatonin to plants, algae, and harvested products to sustain agricultural productivity and enhance nutritional and nutraceutical value: A meta-analysis. Environmental Research, 2021, 200, 111746.	7.5	29
730	Astaxanthin Provides Antioxidant Protection in LPS-Induced Dendritic Cells for Inflammatory Control. Marine Drugs, 2021, 19, 534.	4.6	10
731	Assessing the Potential of Nutraceuticals as Geroprotectors on Muscle Performance and Cognition in Aging Mice. Antioxidants, 2021, 10, 1415.	5.1	1
732	Formulation and optimization of astaxanthin nanoemulsions with marine phospholipids derived from large yellow croaker (<i>Larimichthys crocea</i>) roe. Italian Journal of Food Science, 2021, 33, 1-13.	2.9	3
733	Development of Hydrolysis and Defatting Processes for Production of Lowered Fishy Odor Hydrolyzed Collagen from Fatty Skin of Sockeye Salmon (<i>Oncorhynchus nerka</i>). Foods, 2021, 10, 2257.	4.3	14

#	ARTICLE	IF	CITATIONS
734	Astaxanthin Ameliorates Blood Pressure in Salt-Induced Prehypertensive Rats Through ROS/MAPK/NF- κ B Pathways in the Hypothalamic Paraventricular Nucleus. <i>Cardiovascular Toxicology</i> , 2021, 21, 1045-1057.	2.7	5
735	Astaxanthin and its gold nanoparticles mitigate cadmium toxicity in rice by inhibiting cadmium translocation and uptake. <i>Science of the Total Environment</i> , 2021, 786, 147496.	8.0	37
736	Induction of biosynthesis of ketocarotenoid from β -carotene in fish embryos. <i>Aquaculture</i> , 2021, 542, 736863.	3.5	3
737	The optimization of centrifugal pump driving horizontal tubular photobioreactor for enhancing astaxanthin production using heterotrophic <i>Haematococcus pluvialis</i> . <i>Journal of Biotechnology</i> , 2021, 341, 168-174.	3.8	5
738	Impact of lycopene and astaxanthin on hematological and immunological parameters of laying hens. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 839, 042004.	0.3	3
739	The Zebrafish Embryo as a Model to Test Protective Effects of Food Antioxidant Compounds. <i>Molecules</i> , 2021, 26, 5786.	3.8	7
740	Dietary astaxanthin: an excellent carotenoid with multiple health benefits. <i>Critical Reviews in Food Science and Nutrition</i> , 2023, 63, 3019-3045.	10.3	48
741	Production of carotenoid sarcinaxanthin by <i>Kocuria palustris</i> isolated from Northeastern Brazil Caatinga soil and their antioxidant and photoprotective activities. <i>Electronic Journal of Biotechnology</i> , 2021, 53, 44-53.	2.2	4
742	Mucoadhesive Biopolymer Nanoparticles for Encapsulation of Lipophilic Nutrients With Enhanced Bioactivity. <i>Food Biophysics</i> , 0, , 1.	3.0	2
743	Beneficial effects and health benefits of Astaxanthin molecules on animal production: A review. <i>Research in Veterinary Science</i> , 2021, 138, 69-78.	1.9	39
744	Sustainable cultivation of <i>Haematococcus pluvialis</i> and <i>Chromochloris zofingiensis</i> for the production of astaxanthin and co-products. <i>Canadian Journal of Chemical Engineering</i> , 2022, 100, 2835-2849.	1.7	15
745	Carotenoids: Therapeutic Strategy in the Battle against Viral Emerging Diseases, COVID-19: An Overview. <i>Preventive Nutrition and Food Science</i> , 2021, 26, 241-261.	1.6	25
746	Microalgae Derived Astaxanthin: Research and Consumer Trends and Industrial Use as Food. <i>Foods</i> , 2021, 10, 2303.	4.3	50
747	Characterization of fatty acid desaturases reveals stress-induced synthesis of C18 unsaturated fatty acids enriched in triacylglycerol in the oleaginous alga <i>Chromochloris zofingiensis</i> . <i>Biotechnology for Biofuels</i> , 2021, 14, 184.	6.2	7
748	Rapid and Continuous Astaxanthin Isomerization in Subcritical Ethanol. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 14060-14068.	3.7	17
749	Insight into the emulsifying properties of DHA-enriched phospholipids from large yellow croaker (<i>Larimichthys Crocea</i>) roe. <i>LWT - Food Science and Technology</i> , 2021, 150, 111984.	5.2	12
750	Transcriptome analysis reveals the promoting effect of trisodium citrate on astaxanthin accumulation in <i>Haematococcus pluvialis</i> under high light condition. <i>Aquaculture</i> , 2021, 543, 736978.	3.5	18
751	Modeling of astaxanthin production in the two-stage cultivation of <i>Haematococcus pluvialis</i> and its application on the optimization of vertical multi-column airlift photobioreactor. <i>Algal Research</i> , 2021, 58, 102301.	4.6	8

#	ARTICLE	IF	CITATIONS
752	Hepatopancreas transcriptome analysis reveals the molecular responses to different dietary n-3 PUFA lipid sources in the swimming crab <i>Portunus trituberculatus</i> . <i>Aquaculture</i> , 2021, 543, 737016.	3.5	14
753	The neuroprotective potential of carotenoids in vitro and in vivo. <i>Phytomedicine</i> , 2021, 91, 153676.	5.3	52
754	A biorefinery approach for high value-added bioproduct (astaxanthin) from alga <i>Haematococcus</i> sp. and residue pyrolysis for biochar synthesis and metallic iron production from hematite (Fe ₂ O ₃). <i>Fuel</i> , 2021, 304, 121150.	6.4	9
755	Green remediation of the potential hazardous shellfish wastes generated from the processing industries and their bioprospecting. <i>Environmental Technology and Innovation</i> , 2021, 24, 101979.	6.1	18
756	Light modulates transcriptomic dynamics upregulating astaxanthin accumulation in <i>Haematococcus</i> : A review. <i>Bioresource Technology</i> , 2021, 340, 125707.	9.6	32
757	Improvement and screening of astaxanthin producing mutants of newly isolated <i>Coelastrum</i> sp. using ethyl methane sulfonate induced mutagenesis technique. <i>Biotechnology Reports (Amsterdam)</i> , 2021, 10, 100000.	10.7	10
758	DFT and Raman study of all-trans astaxanthin optical isomers. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 262, 120143.	3.9	8
759	Antioxidant activity and degradation kinetics of astaxanthin extracted from <i>Penaeus sinensis</i> (<i>Solenocera crassicornis</i>) byproducts under pasteurization treatment. <i>LWT - Food Science and Technology</i> , 2021, 152, 112336.	5.2	6
760	Heterologous production of β -Carotene in <i>Corynebacterium glutamicum</i> using a multi-copy chromosomal integration method. <i>Bioresource Technology</i> , 2021, 341, 125782.	9.6	17
761	A joint strategy comprising melatonin and 3-methyladenine to concurrently stimulate biomass and astaxanthin hyperaccumulation by <i>Haematococcus pluvialis</i> . <i>Bioresource Technology</i> , 2021, 341, 125784.	9.6	16
762	Controlled release of water-soluble astaxanthin from carboxymethyl cellulose/gelatin and octenyl succinic anhydride starch/gelatin blend films. <i>Food Hydrocolloids</i> , 2022, 123, 107179.	10.7	21
763	Microalgae: Classification, bioactives, medicinal properties, industrial applications, and future perspectives. <i>Journal of Functional Foods</i> , 2022, 45, 451-486.		2
764	Carotenoids as Antidiabetic Agents. <i>Journal of Functional Foods</i> , 2021, 42, 513-532.		3
765	So different, yet so alike Pancrustacea: Health benefits of insects and shrimps. <i>Journal of Functional Foods</i> , 2021, 76, 104316.	3.4	17
766	The structure-activity relationship of marine products for neuroinflammatory disorders. <i>Studies in Natural Products Chemistry</i> , 2021, 70, 151-194.	1.8	4
767	Benefits under the Sea: The Role of Marine Compounds in Neurodegenerative Disorders. <i>Marine Drugs</i> , 2021, 19, 24.	4.6	25
768	Anti-diabetic effects of astaxanthin on an STZ-induced diabetic model in rats. <i>Endocrine Journal</i> , 2021, 68, 451-459.	1.6	27
769	Neuroprotective activities of bacopa, lycopene, astaxanthin, and vitamin B12 combination on oxidative stress-dependent neuronal death. <i>Journal of Cellular Biochemistry</i> , 2020, 121, 4862-4869.	2.6	15

#	ARTICLE	IF	CITATIONS
770	Bioactive Compounds from Microalgae and Their Potential Applications as Pharmaceuticals and Nutraceuticals. Grand Challenges in Biology and Biotechnology, 2019, , 429-469.	2.4	14
771	Carotenoids as Food Additives. , 2020, , 421-447.		4
772	Carotenoid Overproduction in Microalgae: Biochemical and Genetic Engineering. , 2020, , 81-126.		3
773	Carotenoid Production by Filamentous Fungi and Yeasts. , 2017, , 225-279.		8
774	Food and High Value Products from Microalgae: Market Opportunities and Challenges. , 2020, , 3-27.		37
775	Microalgae in Human Health and Medicine. , 2020, , 149-174.		8
776	Isolation of astaxanthin monoesters from the microalgae Haematococcus pluvialis by high performance countercurrent chromatography (HPCCC) combined with high performance liquid chromatography (HPLC). Algal Research, 2020, 49, 101947.	4.6	26
777	The discovery of antioxidants in marine microorganisms and their protective effects on the hepatic cells from chemical-induced oxidative stress. Free Radical Research, 2020, 54, 150-161.	3.3	7
778	The inhibition of Caco-2 proliferation by astaxanthin from Xanthophyllomyces dendrorhous. Journal of Medical Microbiology, 2018, 67, 507-513.	1.8	6
780	Astaxanthin attenuates hepatic damage and mitochondrial dysfunction in non-alcoholic fatty liver disease by up-regulating the FGF21/PCSK9 pathway. British Journal of Pharmacology, 2020, 177, 3760-3777.	5.4	70
781	Astaxanthin Inhibits Proliferation and Induces Apoptosis and Cell Cycle Arrest of Mice H22 Hepatoma Cells. Medical Science Monitor, 2016, 22, 2152-2160.	1.1	27
782	Protective Effects of Astaxanthin on ConA-Induced Autoimmune Hepatitis by the JNK/p-JNK Pathway-Mediated Inhibition of Autophagy and Apoptosis. PLoS ONE, 2015, 10, e0120440.	2.5	62
783	Preventive effect of dietary astaxanthin on UVA-induced skin photoaging in hairless mice. PLoS ONE, 2017, 12, e0171178.	2.5	75
784	Biocompatible astaxanthin as a novel marine-oriented agent for dual chemo-photothermal therapy. PLoS ONE, 2017, 12, e0174687.	2.5	18
785	Astaxanthin prevents ischemia-reperfusion injury of the steatotic liver in mice. PLoS ONE, 2017, 12, e0187810.	2.5	42
786	Oxidative Telomere Attrition, Nutritional Antioxidants And Biological Aging.. International Journal of Nutrition, 2015, 1, 1-37.	0.7	2
787	Astaxanthin Prevents Decreases in Superoxide Dismutase 2 Level and Superoxide Dismutase Activity in <i>Helicobacter pylori</i> -infected Gastric Epithelial Cells. Journal of Cancer Prevention, 2019, 24, 54-58.	2.0	15
788	Bacterial astaxanthin: production and application in aquaculture - a review. Tap Chi Cong Nghe Sinh Hoc, 2018, 16, 393-405.	0.0	3

#	ARTICLE	IF	CITATIONS
790	COVID-19: Potential of Microalgae Derived Natural Astaxanthin As Adjunctive Supplement in Alleviating Cytokine Storm. SSRN Electronic Journal, 0, , .	0.4	27
791	Production of Biogas and Astaxanthin from Fruit and Vegetable Wastes Using an Integrated System. International Journal of Secondary Metabolite, 2020, 7, 35-46.	1.3	4
792	Flesh Color Diversity of Sweet Potato: An Overview of the Composition, Functions, Biosynthesis, and Gene Regulation of the Major Pigments. Phyton, 2020, 89, 805-833.	0.7	6
793	Effect of CO2 Flow Rate on the Extraction of Astaxanthin and Fatty Acids from Haematococcus pluvialis Using Supercritical Fluid Technology. Molecules, 2020, 25, 6044.	3.8	19
794	Combining antioxidant astaxantin and cholinesterase inhibitor huperzine A boosts neuroprotection. Molecular Medicine Reports, 2020, 21, 1043-1050.	2.4	7
795	Chemosensitizing Effects of Marine Astaxanthin on the Anti-cancer Activity of Doxorubicin in Tumor Bearing Mice. International Journal of Cancer Research, 2018, 15, 1-8.	0.2	1
796	Astaxanthin ameliorates hepatic damage and oxidative stress in carbon tetrachloride-administered rats. Pharmacognosy Research (discontinued), 2017, 9, 84.	0.6	35
797	Nutraceutical Approach to the Metabolic Syndrome. Endocrinology & Metabolic Syndrome: Current Research, 2014, 03, .	0.7	4
798	Potential ability of xanthophylls to prevent obesity-associated cancer. World Journal of Pharmacology, 2014, 3, 140.	2.3	14
799	Astaxanthin Supplementation Increases Glutathione Concentrations but Does Not Impact Fat Oxidation During Exercise in Active Young Men. International Journal of Sport Nutrition and Exercise Metabolism, 2022, 32, 8-15.	2.1	4
800	Anti-inflammatory and antioxidant effects of astaxanthin following spinal cord injury in a rat animal model. Brain Research Bulletin, 2021, 177, 324-331.	3.0	12
801	Study supplementation of astaxanthin in high-fat diet on growth performance, antioxidant ability, anti-inflammation, non-specific immunity and intestinal structure of juvenile <i>Trachinotus ovatus</i> . Aquaculture Nutrition, 2021, 27, 2575-2586.	2.7	16
802	Astaxanthin Inhibits Diabetes-Triggered Periodontal Destruction, Ameliorates Oxidative Complications in STZ-Injected Mice, and Recovers Nrf2-Dependent Antioxidant System. Nutrients, 2021, 13, 3575.	4.1	10
803	Astaxanthin attenuates hepatic steatosis in high-fat diet-fed rats by suppressing microRNA-21 via transactivation of nuclear factor erythroid 2-related factor 2. Journal of Physiology and Biochemistry, 2022, 78, 151-168.	3.0	14
804	Multimechanistic Antidiabetic Potential of Astaxanthin: An Update on Preclinical and Clinical Evidence. Molecular Nutrition and Food Research, 2021, , 2100252.	3.3	10
805	Sequential Continuous Mixotrophic and Phototrophic Cultivation Might Be a Cost-Effective Strategy for Astaxanthin Production From the Microalga Haematococcus lacustris. Frontiers in Bioengineering and Biotechnology, 2021, 9, 740533.	4.1	7
806	Effect of ethanol on astaxanthin and fatty acid production in the red yeast Xanthophyllomyces dendrorhous. Journal of Applied Microbiology, 2022, 132, 2034-2041.	3.1	3
807	Possible effect of Astaxanthin on obesity related increased COVID-19 infection morbidity and mortality. Current Nutrition and Food Science, 2021, 17, .	0.6	0

#	ARTICLE	IF	CITATIONS
808	Isomerization of <i>Paracoccus carotinifaciens</i>-Derived Carotenoids (Astaxanthin, Adonirubin,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 1861-1868.	2.7	4
809	Targeting pathway expression to subcellular organelles improves astaxanthin synthesis in <i>Yarrowia lipolytica</i> . <i>Metabolic Engineering</i> , 2021, 68, 152-161.	7.0	63
810	Type 2 Diabetes and Developmental Origin of Non-Alcohol Fatty Liver Disease and Future Directions of Treatment. <i>Clinical & Experimental Pharmacology</i> , 2016, 6, .	0.3	0
811	Komputerowy system sterowania hodowlÄ... biomasy mikroalg <i>Haematococcus pluvialis</i> do produkcji astaksantyny / The computer control biomass cultivation system of microalga <i>Haematococcus pluvialis</i> for the production of astaxanthin. <i>Prace Naukowe Uniwersytetu Ekonomicznego We WrocÄawiu</i> , 2016, . . .	0.1	0
812	Protective Effect of Nitric Oxide and Natural Antioxidants on Stability of Blood Vessel. <i>Hans Journal of Food and Nutrition Science</i> , 2016, 05, 1-11.	0.1	0
813	Chapter 1 Microalgae as a Source of Nutritional and Therapeutic Metabolites. , 2016, , 1-62.		0
814	Chapter 1 Microalgae as a Source of Nutritional and Therapeutic Metabolites. , 2016, , 1-62.		0
815	THE IMPACT OF ASTAXANTHIN ON THE LEVEL OF DNA METHYLATION IN IRRADIATED IN VITRO HUMAN LYMPHOCYTES. <i>Problemy Radiatsiinoi Medytsyny Ta Radiobiologii</i> , 2018, 23, 235-245.	0.3	1
816	Algae as Source of Functional Ingredients for Health Benefits. <i>Agricultural Research & Technology: Open Access Journal</i> , 2018, 14, .	0.1	3
817	Rice Bran or Apple Pomace? Comparative Data Analysis of Astaxanthin Bioproduction. <i>Tarim Bilimleri Dergisi</i> , 0, , 1-9.	0.4	0
820	Rice Bran or Apple Pomace? Comparative Data Analysis of Astaxanthin Bioproduction. <i>Tarim Bilimleri Dergisi</i> , 0, , 366-373.	0.4	0
821	Fishery Byproducts: Recovery of High Value Nutritional Components. , 2019, , .		1
822	Female maturation and rematuration acceleration of Mutiara strain catfish (<i>Clarias gariepinus</i>) using combination of oocyte developer hormone and astaxanthin addition diet. <i>Jurnal Akuakultur Indonesia</i> , 2019, 18, 23-32.	0.3	0
823	Marine Fungi as a Potential Source of Future Cosmeceuticals. , 2019, , 627-669.		1
824	Natural Foods and Indian herbs of cardiovascular interest. <i>Pharmacy & Pharmacology International Journal</i> , 2019, 7, .	0.2	2
825	Effects of Astaxanthin on the Oxidative Stability and Quality Characteristics of Emulsified Sausages during Cold Storage. <i>Journal of Agriculture & Life Science</i> , 2019, 53, 41-49.	0.2	0
827	Peculiarities of the radiation-induced bystander effect manifestation in human peripheral blood lymphocytes due to action of astaxantine. <i>Reports National Academy of Science of Ukraine</i> , 2019, 9, 82-87.	0.1	0
828	Anticancer Properties of Krill Oil. <i>Journal of Apitherapy and Nature</i> , 0, , 12-16.	0.6	0

#	ARTICLE	IF	CITATIONS
829	Plant Synthetic Biology: A Paradigm Shift Targeting Stress Mitigation, Reduction of Ecological Footprints and Sustainable Transformation in Agriculture. , 2020, , 435-489.		1
830	Marine-Microalgae as a Potential Reservoir of High Value Nutraceuticals. , 2020, , 221-236.		1
831	Multifaceted strategies for economic production of microalgae Haematococcus pluvialis-derived astaxanthin via direct conversion of CO ₂ . Bioresource Technology, 2022, 344, 126255.	9.6	13
832	Shrimp ferritin greatly improves the physical and chemical stability of astaxanthin. Journal of Food Science, 2021, 86, 5295-5306.	3.1	9
833	Astaxanthin intake alleviates gouty arthritis in patients and rats by modulating the levels of various inflammatory markers. Journal of Functional Foods, 2021, 87, 104823.	3.4	2
834	Biosynthetic Pathways in Microalgae Towards Production of Biopigments: Progress and Advances. , 2020, , 91-106.		0
835	Anti-Inflammatory Effects of Astaxanthin against Fungal Keratitis Induced by Aspergillus Fumigatus. Advances in Clinical Medicine, 2020, 10, 378-388.	0.0	0
836	Antidiabetic activity of thin film containing astaxanthin-loaded nanoemulsion using carboxymethylcellulose sodium polymer on alloxan-induced diabetic rabbit. Journal of Advanced Pharmaceutical Technology and Research, 2020, 11, 189.	1.0	3
838	Low-temperature plasma promotes growth of Haematococcus pluvialis and accumulation of astaxanthin by regulating histone H3 lysine 4 tri-methylation. Bioresource Technology, 2022, 343, 126095.	9.6	11
839	Potential Economic Value of Chitin and Its Derivatives as Major Biomaterials of Seafood Waste, with Particular Reference to Southeast Asia. Journal of Renewable Materials, 2022, 10, 909-938.	2.2	6
840	The lipids. , 2022, , 303-467.		18
841	Measuring Biomass-Derived Products in Biological Conversion and Metabolic Process. Methods in Molecular Biology, 2020, 2096, 113-124.	0.9	0
842	Production of O/W Emulsions Containing Astaxanthin by Microfluidic Devices. Nanotechnologies in Russia, 2020, 15, 63-68.	0.7	3
843	Nutraceutical and Pharmaceutical Applications of Carotenoids. , 2020, , 449-469.		6
844	Algal Metabolites and Phyco-Medicine. , 2020, , 291-316.		4
845	Astaxanthin attenuates contrast-induced acute kidney injury through silent mating-type information regulation 2 homolog-1/peroxisome proliferator-activated receptor β co-activator 1 α /NRF1 signaling pathway. Pharmacognosy Magazine, 2020, 16, 733.	0.6	0
846	High-Energy Emulsification Methods for Encapsulation of Lipid-Soluble Antioxidants. Food Bioactive Ingredients, 2020, , 41-107.	0.4	1
847	Nutraceutical-Loaded Chitosan Nanoparticles for Healthcare Applications. , 2020, , 231-257.		1

#	ARTICLE	IF	CITATIONS
849	Natural astaxanthin enhanced antioxidant capacity and improved semen quality through the MAPK/Nrf2 pathway in aging layer breeder roosters. <i>Journal of Animal Science and Biotechnology</i> , 2021, 12, 112.	5.3	9
850	Biotechnological processing of small-sized shrimps for using as seafood. <i>Izvestiya Tinro</i> , 2020, 200, 460-485.	0.7	1
851	Astaksantinin İnsan Akciğer ve Kolon Kanseri Hastalıklarındaki Seşici Sitotoksik Etkisi. <i>Kahramanmaraş Sıtçınar Üniversitesi Tarım Ve Doğa Dergisi</i> , 2020, 23, 1489-1494.	0.7	3
852	Ultrastructural changes of <i>Haematococcus pluvialis</i> (Chlorophyta) in process of astaxanthin accumulation and cell damage under condition of high light with acetate. <i>Algae</i> , 2020, 35, 253-262.	2.3	7
853	Assessment of heavy metal levels and fatty acid compositions of some krill oil capsules marketed in Turkey. <i>International Journal of Agriculture Environment and Food Sciences</i> , 0, , 418-424.	0.6	1
854	An Insight into the Potential Application of Microalgae in Pharmaceutical and Nutraceutical Production. , 2021, , 135-179.		6
855	Anti-inflammatory effects of astaxanthin against fungal keratitis. <i>International Journal of Ophthalmology</i> , 2020, 13, 1681-1688.	1.1	0
856	Attenuation of the Na/K-ATPase/Src/ROS amplification signaling pathway by astaxanthin ameliorates myocardial cell oxidative stress injury. <i>Molecular Medicine Reports</i> , 2020, 22, 5125-5134.	2.4	2
857	Pickering emulsion stabilized by zein/Adzuki bean seed coat polyphenol nanoparticles to enhance the stability and bioaccessibility of astaxanthin. <i>Journal of Functional Foods</i> , 2022, 88, 104867.	3.4	32
858	Application of pressurized liquids to extract high-value compounds from marine biomass. , 2022, , 441-479.		1
859	Prebiotics and probiotics. , 2022, , 55-118.		5
860	Effect of Adding Astaxanthin to The Diet on The Physical and Chemical Traits of The Broiler Chickens. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 910, 012074.	0.3	0
861	Main Carotenoids Produced by Microorganisms. <i>Encyclopedia</i> , 2021, 1, 1223-1245.	4.5	23
862	Microalgae Xanthophylls: From Biosynthesis Pathway and Production Techniques to Encapsulation Development. <i>Foods</i> , 2021, 10, 2835.	4.3	4
863	Mechanistic role of astaxanthin derived from shrimp against certain metabolic disorders. <i>Food Science and Nutrition</i> , 2022, 10, 12-20.	3.4	14
864	Inhibitory Effect of Astaxanthin on Gene Expression Changes in <i>Helicobacter pylori</i> -Infected Human Gastric Epithelial Cells. <i>Nutrients</i> , 2021, 13, 4281.	4.1	5
865	Effect of Adding Different Levels of Astaxanthin Extracted From an Algae <i>Haematococcus Pluvialis</i> to The Diet on Some Immunological Characteristics of Broilers Reared Under Natural and Elevated Environmental Conditions'. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 910, 012003.	0.3	1
866	Cancer Chemopreventive Role of Dietary Terpenoids by Modulating Keap1-Nrf2-ARE Signaling System A Comprehensive Update. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10806.	2.5	19

#	ARTICLE	IF	CITATIONS
867	Identification and Content of Astaxanthin and Its Esters from Microalgae <i>Haematococcus pluvialis</i> by HPLC-DAD and LC-QTOF-MS after Extraction with Various Solvents. <i>Plants</i> , 2021, 10, 2413.	3.5	11
868	Astaxanthin: A super antioxidant from microalgae and its therapeutic potential. <i>Journal of Basic Microbiology</i> , 2022, 62, 1064-1082.	3.3	59
869	Diverse Krill Lipid Fractions Differentially Reduce LPS-Induced Inflammatory Markers in RAW264.7 Macrophages In Vitro. <i>Foods</i> , 2021, 10, 2887.	4.3	3
870	Carotenoids as Natural Colorful Additives for the Food Industry. , 0, , .		1
871	Optimizing the growth of <i>Haematococcus pluvialis</i> based on a novel microbubble-driven photobioreactor. <i>IScience</i> , 2021, 24, 103461.	4.1	12
872	Uncovering the Bioactivity of <i>Aurantiochytrium</i> sp.: a Comparison of Extraction Methodologies. <i>Marine Biotechnology</i> , 2022, 24, 40-54.	2.4	2
873	Exploring the Potential of <i>Nannochloropsis</i> sp. Extract for Cosmeceutical Applications. <i>Marine Drugs</i> , 2021, 19, 690.	4.6	14
874	Undesirable discoloration in edible fish muscle: Impact of indigenous pigments, chemical reactions, processing, and its prevention. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2022, 21, 580-603.	11.7	28
875	Impact of astaxanthin supplementation on blood pressure: A systematic review and meta-analysis of randomized controlled trials. <i>Journal of Functional Foods</i> , 2021, 87, 104860.	3.4	3
876	Marine Derived Bioactives to Combat Obesity: Potential Mechanisms of Action. , 2021, , 373-388.		0
877	Bio-membrane integrated systems for nitrogen recovery from wastewater in circular bioeconomy. <i>Chemosphere</i> , 2022, 289, 133175.	8.2	10
878	Attenuation of the Na/K ⁺ ATPase/Src/ROS amplification signaling pathway by astaxanthin ameliorates myocardial cell oxidative stress injury. <i>Molecular Medicine Reports</i> , 2020, 22, 5125-5134.	2.4	8
879	Anti-inflammatory effects of astaxanthin against fungal keratitis. <i>International Journal of Ophthalmology</i> , 2020, 13, 1681-1688.	1.1	7
880	Assessment of optimal growth conditions for specific carotenoids production by <i>Chlorella vulgaris</i> . <i>Journal of Applied and Natural Science</i> , 2020, 12, 550-555.	0.4	5
881	Anticancer effects and lysosomal acidification in A549 cells by astaxanthin from <i>Haematococcus lacustris</i> . <i>Bioinformation</i> , 2020, 16, 965-973.	0.5	4
882	Astaxanthin Exerts Anabolic Effects via Pleiotropic Modulation of the Excitable Tissue. <i>International Journal of Molecular Sciences</i> , 2022, 23, 917.	4.1	2
883	White biotechnology and the production of bio-products. <i>Systems Microbiology and Biomanufacturing</i> , 2022, 2, 413-429.	2.9	9
884	Microalgae <i>Dunaliella</i> as biofuel feedstock and β -carotene production: An influential step towards environmental sustainability. <i>Energy Conversion and Management: X</i> , 2022, 13, 100154.	1.6	8

#	ARTICLE	IF	CITATIONS
885	Integration of intestinal microbiota and metabonomics to elucidate different alleviation impacts of non-saponification and saponification astaxanthin pre-treatment on paracetamol-induced oxidative stress in rats. <i>Food and Function</i> , 2022, 13, 1860-1880.	4.6	11
886	Comparative Efficiency of Lutein and Astaxanthin in the Protection of Human Corneal Epithelial Cells In Vitro from Blue-Violet Light Photo-Oxidative Damage. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 1268.	2.5	4
887	Aeroterrestrial and Extremophilic Microalgae as Promising Sources for Lipids and Lipid Nanoparticles in Dermal Cosmetics. <i>Cosmetics</i> , 2022, 9, 11.	3.3	2
888	Astaxanthin as a Modulator of Nrf2, NF- κ B, and Their Crosstalk: Molecular Mechanisms and Possible Clinical Applications. <i>Molecules</i> , 2022, 27, 502.	3.8	34
889	Multispectral Imaging Flow Cytometry with Spatially and Spectrally Resolving Snapshot-Mosaic Cameras for the Characterization and Classification of Bioparticles. <i>Micromachines</i> , 2022, 13, 238.	2.9	1
890	Benefits and Safety of Astaxanthin in the Treatment of Mild-To-Moderate Dry Eye Disease. <i>Frontiers in Nutrition</i> , 2021, 8, 796951.	3.7	7
891	Effect of Astaxanthin and Copper Supplementation on Growth, Immunity, Antioxidant, and Blood Biochemical Status of Growing Murrah Buffalo Heifers. <i>Biological Trace Element Research</i> , 2022, 200, 5052-5063.	3.5	3
892	Critical assessment of the filamentous green microalga <i>Oedocladium carolinianum</i> for astaxanthin and oil production. <i>Algal Research</i> , 2022, 61, 102599.	4.6	7
893	Enhancement of astaxanthin incorporation by pulsed high-intensity ultrasound in LPS-stimulated macrophages. <i>Journal of Medical Ultrasonics (2001)</i> , 2022, 49, 125-132.	1.3	5
894	The spatial arrangement of astaxanthin in bilayers greatly influenced the structural stability of DPPC liposomes. <i>Colloids and Surfaces B: Biointerfaces</i> , 2022, 212, 112383.	5.0	15
895	A smart cauliflower-like carrier for astaxanthin delivery to relieve colon inflammation. <i>Journal of Controlled Release</i> , 2022, 342, 372-387.	9.9	45
896	Lifespan extension and anti-oxidant effects of carotenoid pigments in <i>Caenorhabditis elegans</i> . <i>Bioresource Technology Reports</i> , 2022, 17, 100962.	2.7	8
897	Dynamics of luminescence characteristics of <i>Haematococcus lacustris</i> cultures in different cultivation conditions. <i>Luminescence</i> , 2022, 37, 455-462.	2.9	1
898	Dietary astaxanthin improves the antioxidant capacity, immunity and disease resistance of coral trout (<i>Plectropomus leopardus</i>). <i>Fish and Shellfish Immunology</i> , 2022, 122, 38-47.	3.6	24
899	Recovery of value-added products by mining microalgae. <i>Journal of Environmental Management</i> , 2022, 307, 114512.	7.8	15
900	Extraction of astaxanthin from <i>Haematococcus pluvialis</i> with hydrophobic deep eutectic solvents based on oleic acid. <i>Food Chemistry</i> , 2022, 379, 132156.	8.2	40
901	Carotenoids from Marine Sources as a New Approach in Neuroplasticity Enhancement. <i>International Journal of Molecular Sciences</i> , 2022, 23, 1990.	4.1	4
902	Uncovering the phytochemicals of root exudates and extracts of lead (Pb) tolerant <i>Chrysopogon zizanioides</i> (L.) Roberty in response to lead contamination and their effect on the chemotactic behavior of rhizospheric bacteria. <i>Environmental Science and Pollution Research</i> , 2022, 29, 44998-45012.	5.3	9

#	ARTICLE	IF	CITATIONS
903	Astaxanthin supplementation mildly reduced oxidative stress and inflammation biomarkers: a systematic review and meta-analysis of randomized controlled trials. <i>Nutrition Research</i> , 2022, 99, 40-50.	2.9	7
904	DFT-Based Raman Spectral Study of Astaxanthin Geometrical Isomers. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
905	Applications of micro- and macroalgae elements in the food and healthcare industries. <i>CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources</i> , 0, , .	1.0	0
906	Astaxanthin Protects Ultraviolet B-Induced Oxidative Stress and Apoptosis in Human Keratinocytes via Intrinsic Apoptotic Pathway. <i>Annals of Dermatology</i> , 2022, 34, 125.	0.9	7
907	Seaweeds™ pigments and phenolic compounds with antimicrobial potential. <i>Biomolecular Concepts</i> , 2022, 13, 89-102.	2.2	22
908	Potential Products from Macroalgae: An Overview. , 2022, , 17-44.		4
910	Dietary phytochemicals targeting Nrf2 for chemoprevention in breast cancer. <i>Food and Function</i> , 2022, 13, 4273-4285.	4.6	12
911	The Algal Polysaccharide Ulvan and Carotenoid Astaxanthin Both Positively Modulate Gut Microbiota in Mice. <i>Foods</i> , 2022, 11, 565.	4.3	9
912	Production of High Levels of 3- <i>O</i> -Acetyl-Astaxanthin in <i>Yarrowia lipolytica</i> via Iterative Metabolic Engineering. <i>Journal of Agricultural and Food Chemistry</i> , 2022, 70, 2673-2683.	5.2	29
913	Astaxanthin protects against hearing impairment in diabetic rats. <i>Brazilian Journal of Otorhinolaryngology</i> , 2022, 88, S73-S80.	1.0	2
914	Microalgal Biorefinery Concepts™ Developments for Biofuel and Bioproducts: Current Perspective and Bottlenecks. <i>International Journal of Molecular Sciences</i> , 2022, 23, 2623.	4.1	34
915	Effective Two-Stage Heterotrophic Cultivation of the Unicellular Green Microalga <i>Chromochloris zofingiensis</i> Enabled Ultrahigh Biomass and Astaxanthin Production. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 834230.	4.1	5
916	Adaptive laboratory evolution and shuffling of <i>Escherichia coli</i> to enhance its tolerance and production of astaxanthin. , 2022, 15, 17.		7
917	Properties and Characteristics of Acid-Soluble Collagen from Salmon Skin Defatted with the Aid of Ultrasonication. <i>Fishes</i> , 2022, 7, 51.	1.7	11
918	Future feed resources in sustainable salmonid production: A review. <i>Reviews in Aquaculture</i> , 2022, 14, 1790-1812.	9.0	48
919	Obtaining Fat-Soluble Pigments™ Carotenoids from the Biomass of <i>Chlorella</i> Microalgae. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 3246.	2.5	5
920	Whole Genome Sequencing and RNA-seq-Driven Discovery of New Targets That Affect Carotenoid Synthesis in <i>Phaffia rhodozyma</i> . <i>Frontiers in Microbiology</i> , 2022, 13, 837894.	3.5	4
921	Astaxanthin Enhances Gingival Wound Healing following High Glucose-Induced Oxidative Stress. <i>BioMed Research International</i> , 2022, 2022, 1-7.	1.9	2

#	ARTICLE	IF	CITATIONS
922	Simultaneous Inhibitory Effects of All-Trans Astaxanthin on Acetylcholinesterase and Oxidative Stress. <i>Marine Drugs</i> , 2022, 20, 247.	4.6	5
923	Protective capacity of carotenoid trans-astaxanthin in rotenone-induced toxicity in <i>Drosophila melanogaster</i> . <i>Scientific Reports</i> , 2022, 12, 4594.	3.3	13
924	Effects of astaxanthin supplementation in fertilization medium and/or culture medium on the fertilization and development of mouse oocytes. <i>Clinical and Experimental Reproductive Medicine</i> , 2022, 49, 26-32.	1.5	2
925	Crustacean waste biorefinery as a sustainable cost-effective business model. <i>Chemical Engineering Journal</i> , 2022, 442, 135937.	12.7	33
926	Algae: Study of Edible and Biologically Active Fractions, Their Properties and Applications. <i>Plants</i> , 2022, 11, 780.	3.5	30
927	Cardio-Protective Properties and Health Benefits of Fish Lipid Bioactives; The Effects of Thermal Processing. <i>Marine Drugs</i> , 2022, 20, 187.	4.6	17
928	Astaxanthin from Crustaceans and Their Byproducts: A Bioactive Metabolite Candidate for Therapeutic Application. <i>Marine Drugs</i> , 2022, 20, 206.	4.6	27
929	Distribution of astaxanthin in the spiny lobster <i>Jasus lalandii</i> : trends during biological cycles. <i>Invertebrate Reproduction and Development</i> , 2022, 66, 120-134.	0.8	1
930	Fabrication of astaxanthin-enriched colon-targeted alginate microspheres and its beneficial effect on dextran sulfate sodium-induced ulcerative colitis in mice. <i>International Journal of Biological Macromolecules</i> , 2022, 205, 396-409.	7.5	21
931	Red yeast (<i>Phaffia rhodozyma</i>) and its effect on growth, antioxidant activity and color pigmentation of rainbow trout (<i>Oncorhynchus mykiss</i>). <i>Aquaculture Reports</i> , 2022, 23, 101082.	1.7	7
932	Astaxanthin Supplementation Improves the Subsequent Developmental Competence of Vitrified Porcine Zygotes. <i>Frontiers in Veterinary Science</i> , 2022, 9, 871289.	2.2	7
933	Dietary supplementation of astaxanthin increased growth, colouration, the capacity of hypoxia and ammonia tolerance of Pacific white shrimp (<i>Litopenaeus vannamei</i>). <i>Aquaculture Reports</i> , 2022, 23, 101093.	1.7	8
934	Bioaccessibility of carotenoids (β -carotene and lutein) from intact and disrupted microalgae (<i>Chlamydomonas reinhardtii</i>). <i>LWT - Food Science and Technology</i> , 2022, 160, 113292.	5.2	7
935	Astaxanthin delays brain aging in senescence-accelerated mouse prone 10: inducing autophagy as a potential mechanism. <i>Nutritional Neuroscience</i> , 2023, 26, 445-455.	3.1	6
936	Stability, structure, and antioxidant activity of astaxanthin crystal from <i>Haematococcus pluvialis</i> . <i>JAOCs, Journal of the American Oil Chemists' Society</i> , 0, , .	1.9	2
937	Astaxanthin Bioactivity Is Determined by Stereoisomer Composition and Extraction Method. <i>Nutrients</i> , 2022, 14, 1522.	4.1	10
938	Dietary and nutraceutical-based therapeutic approaches to combat the pathogenesis of Huntington's disease. <i>Journal of Functional Foods</i> , 2022, 92, 105047.	3.4	5
939	Elucidating the ameliorative effects of the cyanobacterium <i>Spirulina</i> (<i>Arthrospira platensis</i>) and several microalgal species against the negative impacts of contaminants in freshwater fish: A review. <i>Aquaculture</i> , 2022, 554, 738155.	3.5	13

#	ARTICLE	IF	CITATIONS
940	Mechanism of cell death pathways in status epilepticus and related therapeutic agents. <i>Biomedicine and Pharmacotherapy</i> , 2022, 149, 112875.	5.6	14
941	Optimization of microbial cell factories for astaxanthin production: Biosynthesis and regulations, engineering strategies and fermentation optimization strategies. <i>Synthetic and Systems Biotechnology</i> , 2022, 7, 689-704.	3.7	34
942	In vitro and in vivo anti-tumor efficacy of krill oil against bladder cancer: Involvement of tumor-associated angiogenic vasculature. <i>Food Research International</i> , 2022, 156, 111144.	6.2	7
943	DFT-based Raman spectral study of astaxanthin geometrical isomers. <i>Food Chemistry Molecular Sciences</i> , 2022, 4, 100103.	2.1	2
944	Astaxanthin-Mediated Bacterial Lethality: Evidence from Oxidative Stress Contribution and Molecular Dynamics Simulation. <i>Oxidative Medicine and Cellular Longevity</i> , 2021, 2021, 1-24.	4.0	20
945	Astaxanthin and Isoflavones Inhibit Benign Prostatic Hyperplasia in Rats by Reducing Oxidative Stress and Normalizing Ca/Mg Balance. <i>Plants</i> , 2021, 10, 2735.	3.5	8
946	Comparative Study of Astaxanthin, Cholesterol, Fatty Acid Profiles, and Quality Indices Between Shrimp Oil Extracted From Hepatopancreas and Cephalothorax. <i>Frontiers in Nutrition</i> , 2021, 8, 803664.	3.7	4
947	Astaxanthin as a Novel Mitochondrial Regulator: A New Aspect of Carotenoids, beyond Antioxidants. <i>Nutrients</i> , 2022, 14, 107.	4.1	31
948	The direct and indirect effects of bioactive compounds against coronavirus. <i>Food Frontiers</i> , 2022, 3, 96-123.	7.4	17
949	Inhibitory Effects of Astaxanthin on CML-HSA-Induced Inflammatory and RANKL-Induced Osteoclastogenic Gene Expression in RAW 264.7 Cells. <i>Biomedicines</i> , 2022, 10, 54.	3.2	7
950	Comparative genome characterization of <i>Echinicola marina</i> sp. nov., isolated from deep-sea sediment provide insight into carotenoid biosynthetic gene cluster evolution. <i>Scientific Reports</i> , 2021, 11, 24188.	3.3	2
951	What Do We Know about Antimicrobial Activity of Astaxanthin and Fucoxanthin?. <i>Marine Drugs</i> , 2022, 20, 36.	4.6	20
952	The Beneficial Effects of Astaxanthin on Glucose Metabolism and Modified Low-Density Lipoprotein in Healthy Volunteers and Subjects with Prediabetes. <i>Nutrients</i> , 2021, 13, 4381.	4.1	11
953	FORMULATION, CHARACTERIZATION, AND DETERMINATION OF THE DIFFUSION RATE STUDY OF ANTIOXIDANT SERUM CONTAINING ASTAXANTHIN NANOEMULSION. <i>International Journal of Applied Pharmaceutics</i> , 0, 200-204.	0.3	2
954	Astaksantinâ€™in kimyasal ve uygulamalar ve 1/4zerine bir inceleme. <i>Journal of Advances in VetBio Science and Techniques</i> , 2021, 6, 318-330.	0.4	0
955	Development of Astaxanthin-Loaded Nanosized Liposomal Formulation to Improve Bone Health. <i>Pharmaceutics</i> , 2022, 15, 490.	3.8	7
956	Astaxanthin Confers a Significant Attenuation of Hippocampal Neuronal Loss Induced by Severe Ischemia-Reperfusion Injury in Gerbils by Reducing Oxidative Stress. <i>Marine Drugs</i> , 2022, 20, 267.	4.6	6
957	The Effect of Two Different Doses of Astaxanthin on Alveolar Bone Loss in an Experimental Model of Periodontitis in Diabetic Rats. <i>Journal of Veterinary Dentistry</i> , 2022, 39, 224-233.	0.3	1

#	ARTICLE	IF	CITATIONS
958	Dietary astaxanthin modulated the performance, gastrointestinal histology, and antioxidant and immune responses and enhanced the resistance of <i>Litopenaeus vannamei</i> against <i>Vibrio harveyi</i> infection. <i>Aquaculture International</i> , 2022, 30, 1869-1887.	2.2	6
959	Astaxanthin as a Potential Antioxidant to Improve Health and Production Performance of Broiler Chicken. <i>Veterinary Medicine International</i> , 2022, 2022, 1-9.	1.5	14
960	Does egg carotenoid improve larval quality in Arctic charr (<i>Salvelinus alpinus</i>)?. <i>Ecology and Evolution</i> , 2022, 12, e8812.	1.9	1
961	Carotenoids: Dietary Sources, Extraction, Encapsulation, Bioavailability, and Health Benefits—A Review of Recent Advancements. <i>Antioxidants</i> , 2022, 11, 795.	5.1	91
962	Pulsed Electric Field-Assisted Cell Permeabilization of Microalgae (<i>Haematococcus pluvialis</i>) for Milking of Value-Added Compounds. <i>Bioenergy Research</i> , 2023, 16, 311-324.	3.9	5
966	Antioxidant Activity and Carotenoid Content Responses of Three <i>Haematococcus</i> sp. (Chlorophyta) Strains Exposed to Multiple Stressors. <i>Applied Biochemistry and Biotechnology</i> , 2022, 194, 4492-4510.	2.9	4
967	Improving astaxanthin production in <i>Escherichia coli</i> by co-utilizing CrtZ enzymes with different substrate preference. <i>Microbial Cell Factories</i> , 2022, 21, 71.	4.0	8
968	Improved Productivity of Astaxanthin from Photosensitive <i>Haematococcus pluvialis</i> Using Phototaxis Technology. <i>Marine Drugs</i> , 2022, 20, 220.	4.6	4
969	Next Generation Biofuels from Macroalgae: Prospects and Challenges. <i>Clean Energy Production Technologies</i> , 2022, , 55-75.	0.5	3
970	Green in the deep blue: deep eutectic solvents as versatile systems for the processing of marine biomass. <i>Green Chemistry Letters and Reviews</i> , 2022, 15, 383-404.	4.7	9
971	Protection of pancreatic beta cells against high glucose-induced toxicity by astaxanthin-s-allyl cysteine diester: alteration of oxidative stress and apoptotic-related protein expression. <i>Archives of Physiology and Biochemistry</i> , 2022, , 1-9.	2.1	0
972	Quantification and Improvement of the Dynamics of Human Serum Albumin and Glycated Human Serum Albumin with Astaxanthin/Astaxanthin-Metal Ion Complexes: Physico-Chemical and Computational Approaches. <i>International Journal of Molecular Sciences</i> , 2022, 23, 4771.	4.1	5
973	A Newly Isolated Strain of <i>Haematococcus pluvialis</i> GXU-A23 Improves the Growth Performance, Antioxidant and Anti-Inflammatory Status, Metabolic Capacity and Mid-intestine Morphology of Juvenile <i>Litopenaeus vannamei</i> . <i>Frontiers in Physiology</i> , 2022, 13, 882091.	2.8	3
974	Improving astaxanthin production of <i>Haematococcus pluvialis</i> on the outdoor large scale cultivation by optimizing the disinfection strategy of photobioreactor. <i>Algal Research</i> , 2022, 64, 102708.	4.6	8
975	Colon and gut microbiota greatly affect the absorption and utilization of astaxanthin derived from <i>Haematococcus pluvialis</i> . <i>Food Research International</i> , 2022, 156, 111324.	6.2	8
976	The Emerging Role of Marine Natural Products for the Treatment of Parkinson's Disease. <i>CNS and Neurological Disorders - Drug Targets</i> , 2023, 22, 801-816.	1.4	3
977	Pharmacotherapeutic potential of astaxanthin: Human and animal targeting roles – A review. <i>Annals of Animal Science</i> , 2022, 22, 829-838.	1.6	3
978	Bioactivities of astaxanthin from natural sources, augmenting its biomedical potential: A review. <i>Trends in Food Science and Technology</i> , 2022, 125, 81-90.	15.1	31

#	ARTICLE	IF	CITATIONS
979	The effectiveness of <i>Arthrospira platensis</i> and microalgae in relieving stressful conditions affecting finfish and shellfish species: An overview. <i>Aquaculture Reports</i> , 2022, 24, 101135.	1.7	19
980	Resource recovery from waste streams for production of microalgae biomass: A sustainable approach towards high-value biorefineries. <i>Bioresource Technology Reports</i> , 2022, 18, 101070.	2.7	13
981	Directed yeast genome evolution by controlled introduction of trans-chromosomal structural variations. <i>Science China Life Sciences</i> , 2022, 65, 1703-1717.	4.9	7
982	Astaxanthin From <i>Haematococcus pluvialis</i> Prevents High-Fat Diet-Induced Hepatic Steatosis and Oxidative Stress in Mice by Gut-Liver Axis Modulating Properties. <i>Frontiers in Nutrition</i> , 2022, 9, 840648.	3.7	6
983	Green ultrasound-assisted extraction of astaxanthin from fermented rebon shrimp (<i>cinca</i>) using vegetable oils as solvents. <i>OCL - Oilseeds and Fats, Crops and Lipids</i> , 2022, 29, 15.	1.4	1
984	Detection of astaxanthin at different regions of the brain in rats treated with astaxanthin nanoemulsion. <i>Journal of Pharmacy and Bioallied Sciences</i> , 2022, 14, 25.	0.6	3
986	<i>Paraphysoderma sedebokerense</i> GlnS III Is Essential for the Infection of Its Host <i>Haematococcus lacustris</i> . <i>Journal of Fungi (Basel, Switzerland)</i> , 2022, 8, 561.	3.5	0
987	Cold-Set Emulsion Gels Costabilized by Kidney Bean Protein Isolate and Basil Seed Gum as Astaxanthin Carriers: Improved Stability and Bioaccessibility. <i>ACS Food Science & Technology</i> , 2022, 2, 1018-1029.	2.7	2
988	Astaxanthin use as carotenoid source and its benefits in feeds. , 2022, , 309-335.		3
989	Biorefinery approaches for integral use of microalgal biomass. , 2022, , 321-344.		0
990	Astaxanthin attenuated the stress-induced intestinal motility disorder via altering the gut microbiota. <i>International Journal for Vitamin and Nutrition Research</i> , 2023, 93, 427-437.	1.5	1
991	Effects of Nitrogen and Light Intensity on the Astaxanthin Accumulation in Motile Cells of <i>Haematococcus pluvialis</i> . <i>Frontiers in Marine Science</i> , 2022, 9, .	2.5	5
992	Therapeutic Role of Astaxanthin and Resveratrol in an Experimental Rat Model of Supraceliac Aortic Ischemia-Reperfusion. <i>American Journal of Perinatology</i> , 0, , .	1.4	1
993	Dietary Supplement of Microalgal Astaxanthin Extraction Improved Shell Pigmentation and Nutritional Value of <i>Litopenaeus vannamei</i> in an Indoor Industrial Aquaculture System. <i>Aquaculture Nutrition</i> , 2022, 2022, 1-7.	2.7	0
994	Biological Potential, Gastrointestinal Digestion, Absorption, and Bioavailability of Algae-Derived Compounds with Neuroprotective Activity: A Comprehensive Review. <i>Marine Drugs</i> , 2022, 20, 362.	4.6	14
995	Application of Marine Microbial Natural Products in Cosmetics. <i>Frontiers in Microbiology</i> , 2022, 13, .	3.5	9
996	Algae Functional Compounds. , 2023, , .		1
997	Carotenoids (Xanthophylls and Carotenes). , 2022, , 279-308.		0

#	ARTICLE	IF	CITATIONS
998	Establishment of ultrasonic stimulation to enhance growth of <i>Haematococcus lacustris</i> . <i>Bioresource Technology</i> , 2022, 360, 127525.	9.6	2
999	International society of sports nutrition position stand: tactical athlete nutrition. <i>Journal of the International Society of Sports Nutrition</i> , 2022, 19, 267-315.	3.9	11
1000	Preparation, Characterization, and In Vitro Anticancer Activity Evaluation of Broccoli-Derived Extracellular Vesicle-Coated Astaxanthin Nanoparticles. <i>Molecules</i> , 2022, 27, 3955.	3.8	18
1001	Ochratoxin A and Kidney Oxidative Stress: The Role of Nutraceuticals in Veterinary Medicine—A Review. <i>Toxins</i> , 2022, 14, 398.	3.4	11
1002	An enhanced antioxidant strategy of astaxanthin encapsulated in ROS-responsive nanoparticles for combating cisplatin-induced ototoxicity. <i>Journal of Nanobiotechnology</i> , 2022, 20, .	9.1	13
1003	Regulation of Light Spectra on Cell Division of the Unicellular Green Alga <i>Haematococcus pluvialis</i> : Insights from Physiological and Lipidomic Analysis. <i>Cells</i> , 2022, 11, 1956.	4.1	6
1004	Application of Algae in Food Science, Antioxidants, Animal Feed, and Aquaculture. Impact of Meat Consumption on Health and Environmental Sustainability, 2022, , 397-417.	0.4	0
1005	The effect of astaxanthin on human sperm parameters after cryopreservation. <i>Canadian Urological Association Journal</i> , 2022, 16, .	0.6	2
1006	Health benefits of astaxanthin against age-related diseases of multiple organs: A comprehensive review. <i>Critical Reviews in Food Science and Nutrition</i> , 2023, 63, 10709-10774.	10.3	17
1007	Simple and rapid separation of <i>Haematococcus pluvialis</i> and ciliate based on the decoupled inertial microfluidics. <i>Journal of Separation Science</i> , 2022, 45, 3900-3908.	2.5	1
1008	From Foods to Chemotherapeutics: The Antioxidant Potential of Dietary Phytochemicals. <i>Processes</i> , 2022, 10, 1222.	2.8	2
1009	The Putative Role of Astaxanthin in Neuroinflammation Modulation: Mechanisms and Therapeutic Potential. <i>Frontiers in Pharmacology</i> , 0, 13, .	3.5	7
1010	Degradable polyprodrugs: design and therapeutic efficiency. <i>Chemical Society Reviews</i> , 2022, 51, 6652-6703.	38.1	28
1011	Cyanobacterial and commercially important carotenoids: Biosynthesis, metabolic engineering, biological activities, applications, and processing. , 2022, , 211-233.		1
1012	Establishing and validating axenic cultures of the microalga <i>Haematococcus lacustris</i> (Chlorophyceae). <i>Applied Phycology</i> , 2022, 3, 82-97.	1.3	2
1013	Progress towards a targeted biorefinery of <i>Chromochloris zofingiensis</i> : a review. <i>Biomass Conversion and Biorefinery</i> , 0, , .	4.6	2
1014	New Insight Into the Molting and Growth in Crustaceans: Regulation of Energy Homeostasis Through the Lipid Nutrition. <i>Frontiers in Marine Science</i> , 0, 9, .	2.5	7
1015	Identification and Characterization of a New Microalga <i>Dysmorphococcus globosus</i> -HI from the Himalayan Region as a Potential Source of Natural Astaxanthin. <i>Biology</i> , 2022, 11, 884.	2.8	6

#	ARTICLE	IF	CITATIONS
1016	Accumulation of Astaxanthin and Canthaxanthin in Liver and Gonads of Rainbow Trout (<i>Oncorhynchus mykiss</i> (Walbaum, 1792)) Reared in Water Containing the Fungicide Mancozeb in Concentration Level Permitted by European Legislation. <i>Applied Sciences</i> (Switzerland), 2022, 12, 6646.	2.5	0
1017	Beneficial Changes in Growth Performance, Antioxidant Capacity, Immune Response, Hepatic Health, and Flesh Quality of <i>Trachinotus ovatus</i> Fed With <i>Oedocladium carolinianum</i> . <i>Frontiers in Immunology</i> , 0, 13, .	4.8	4
1018	Oxidative stress modulates astaxanthin synthesis in <i>Haematococcus pluvialis</i> . <i>Journal of Applied Phycology</i> , 2022, 34, 2327-2338.	2.8	2
1019	Surface-mediated high antioxidant and anti-inflammatory effects of astaxanthin-loaded ultrathin graphene oxide film that inhibits the overproduction of intracellular reactive oxygen species. <i>Biomaterials Research</i> , 2022, 26, .	6.9	17
1020	<scp>GATA</scp> transcription factor <scp>WC2</scp> regulates the biosynthesis of astaxanthin in yeast <i>Xanthophyllomyces dendrorhous</i>. <i>Microbial Biotechnology</i> , 2022, 15, 2578-2593.	4.2	3
1021	Rapid Quantitation of Adulterants in Premium Marine Oils by Raman and IR Spectroscopy: A Data Fusion Approach. <i>Molecules</i> , 2022, 27, 4534.	3.8	8
1022	Glycol Chitosan-Astaxanthin Nanoparticles: Water Dispersion, Antioxidant Activity, and Improved Cell Migration. <i>Macromolecular Research</i> , 2022, 30, 712-718.	2.4	2
1023	Astaxanthin absorption modulated antioxidant enzyme activity and targeted specific metabolic pathways in rats. <i>Journal of the Science of Food and Agriculture</i> , 2022, 102, 7003-7016.	3.5	1
1024	Isolation, Identification, and Function of <i>Rhodotorula mucilaginosa</i> TZR2014 and Its Effects on the Growth and Health of Weaned Piglets. <i>Frontiers in Microbiology</i> , 0, 13, .	3.5	7
1025	Transcriptome Analysis of the Accumulation of Astaxanthin in <i>Haematococcus pluvialis</i> Treated with White and Blue Lights as well as Salicylic Acid. <i>BioMed Research International</i> , 2022, 2022, 1-19.	1.9	2
1026	Advances of astaxanthin-based delivery systems for precision nutrition. <i>Trends in Food Science and Technology</i> , 2022, 127, 63-73.	15.1	20
1027	Effects of gaseous ozone treatment on the quality and microbial community of salmon (<i>Salmo salar</i>) during cold storage. <i>Food Control</i> , 2022, 142, 109217.	5.5	5
1028	Supercritical fluid extraction of astaxanthin-rich extracts from <i>Haematococcus pluvialis</i> : Economic assessment. <i>Bioresource Technology</i> , 2022, 361, 127706.	9.6	12
1029	Evaluate the Protective Effect of Antioxidants on Retinal Pigment Cell Hazard Induced by Blue Light: A Mini-Review. <i>Food Reviews International</i> , 0, , 1-15.	8.4	0
1030	Astaxanthin Ameliorates Diabetic Retinopathy in Swiss Albino Mice via Inhibitory Processes of Neuron-Specific Enolase Activity. <i>Processes</i> , 2022, 10, 1318.	2.8	1
1031	Impact of sodium pyrophosphate and static magnetic field on <i>Haematococcus pluvialis</i> : enhancement of astaxanthin accumulation, PAL, and antioxidant enzyme activities. <i>Physiology and Molecular Biology of Plants</i> , 2022, 28, 1207-1216.	3.1	3
1032	Revisi3n del estado actual de las formulaciones y aplicaciones de astaxantina producida por <i>Haematococcus pluvialis</i> . <i>Mutis</i> , 2023, 13, 1-27.	0.1	0
1033	Antioxidant and Anti4Pollution Effect of Naturally Occurring Carotenoids Astaxanthin and Crocin for Human Skin Protection. <i>ChemistrySelect</i> , 2022, 7, .	1.5	0

#	ARTICLE	IF	CITATIONS
1034	Pharmaceutical and nutraceutical potential of natural bioactive pigment: astaxanthin. <i>Natural Products and Bioprospecting</i> , 2022, 12, .	4.3	34
1035	Evaluation of the phototrophic growth of <i>Haematococcus pluvialis</i> under outdoor lighting conditions inside a bubble column reactor at a laboratory scale. <i>Algal Research</i> , 2022, 66, 102800.	4.6	2
1036	Biological and neurological activities of astaxanthin (Review). <i>Molecular Medicine Reports</i> , 2022, 26, .	2.4	18
1037	Astaxanthin Alleviates Nonalcoholic Fatty Liver Disease by Regulating the Intestinal Flora and Targeting the AMPK/Nrf2 Signal Axis. <i>Journal of Agricultural and Food Chemistry</i> , 2022, 70, 10620-10634.	5.2	11
1038	Astaxanthin alleviates palmitic acid-induced hindrance of porcine oocyte maturation. <i>Reproduction in Domestic Animals</i> , 2022, 57, 1440-1449.	1.4	1
1039	Krill Oil Turns Off TGF- β 1 Profibrotic Signaling in the Prevention of Diabetic Nephropathy. <i>Journal of Agricultural and Food Chemistry</i> , 2022, 70, 9865-9876.	5.2	5
1040	Algal nanofibers: Current status and recent developments. <i>Materials Today Communications</i> , 2022, 33, 104248.	1.9	4
1041	Extraction of astaxanthin from atlantic shrimp by-products using fish oil: Process optimization and operational parameter effects. <i>Journal of Cleaner Production</i> , 2022, 371, 133609.	9.3	7
1042	Dietary supplementation of astaxanthin modulates skin color and liver antioxidant status of giant grouper (<i>Epinephelus lanceolatus</i>). <i>Aquaculture Reports</i> , 2022, 26, 101266.	1.7	3
1043	Integrated pathway engineering and transcriptome analysis for improved astaxanthin biosynthesis in <i>Yarrowia lipolytica</i> . <i>Synthetic and Systems Biotechnology</i> , 2022, 7, 1133-1141.	3.7	6
1044	Carotenoids in Drug Discovery and Medicine: Pathways and Molecular Targets Implicated in Human Diseases. <i>Molecules</i> , 2022, 27, 6005.	3.8	20
1045	Accelerated Bone Regeneration by an Astaxanthin-Modified Antioxidant Aerogel through Relieving Oxidative Stress via the NRF2 Signaling Pathway. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 4524-4534.	5.2	5
1046	Astaxanthin attenuates osteoarthritis progression via inhibiting ferroptosis and regulating mitochondrial function in chondrocytes. <i>Chemico-Biological Interactions</i> , 2022, 366, 110148.	4.0	32
1047	Fabrication of astaxanthin-loaded electrospun nanofiber-based mucoadhesive patches with water-insoluble backing for the treatment of oral premalignant lesions. <i>Materials and Design</i> , 2022, 223, 111131.	7.0	11
1048	Effects of synthetic astaxanthin and <i>Haematococcus pluvialis</i> on growth, antioxidant capacity, immune response, and hepato-morphology of <i>Oncorhynchus mykiss</i> under cage culture with flowing freshwater. <i>Aquaculture</i> , 2023, 562, 738860.	3.5	4
1049	Antiaging drugs, candidates, and food supplements: the journey so far. , 2022, , 191-239.		1
1050	Directed Evolution of the Fusion Enzyme for Improving Astaxanthin Biosynthesis in <i>Saccharomyces Cerevisiae</i> . <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1051	Natural Astaxanthin Improves Testosterone Synthesis and Sperm Mitochondrial Function in Aging Roosters. <i>Antioxidants</i> , 2022, 11, 1684.	5.1	1

#	ARTICLE	IF	CITATIONS
1052	Ä°skenderun KÄ¶rfeziâ€™nden avlanan derin su pembe karidesi (<i>Parapenaeus longirostris</i>)â€™nin atÄ±klarÄ±ndan elde edilen astaksantin ekstraksiyonu ve karakterizasyonu. <i>Journal of Advances in VetBio Science and Techniques</i> , 2022, 7, 228-232.	0.4	0
1053	Nanocarrier System: State-of-the-Art in Oral Delivery of Astaxanthin. <i>Antioxidants</i> , 2022, 11, 1676.	5.1	12
1054	Property and Stability of Astaxanthin Emulsion Based on Pickering Emulsion Templating with Zein and Sodium Alginate as Stabilizer. <i>International Journal of Molecular Sciences</i> , 2022, 23, 9386.	4.1	2
1055	Astaxanthin affects oxidative stress biomarkers in methotrexate-induced hepatotoxicity. <i>International Journal of Health Sciences</i> , 0, , 10584-10596.	0.1	0
1056	Astaxanthin Activated the Nrf2/HO-1 Pathway to Enhance Autophagy and Inhibit Ferroptosis, Ameliorating Acetaminophen-Induced Liver Injury. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 42887-42903.	8.0	47
1057	Aquaculture sustainability through alternative dietary ingredients: Microalgal value-added products. <i>Engineering Microbiology</i> , 2022, 2, 100049.	4.7	12
1058	Aligned with sustainable development goals: microwave extraction of astaxanthin from wetÄ±algae and selective cytotoxic effect of the extract on lung cancer cells. <i>Preparative Biochemistry and Biotechnology</i> , 2023, 53, 565-571.	1.9	4
1059	Carotenoids from Marine Microalgae as Antimelanoma Agents. <i>Marine Drugs</i> , 2022, 20, 618.	4.6	4
1060	The effects of astaxanthin supplementation on expression of microRNAs involved in cardiovascular diseases: a systematic review of current evidence. <i>International Journal of Food Sciences and Nutrition</i> , 0, , 1-11.	2.8	1
1061	The Anticancer Potential of Plant-Derived Nutraceuticals via the Modulation of Gene Expression. <i>Plants</i> , 2022, 11, 2524.	3.5	14
1062	Microbial Astaxanthin Production from Agro-Industrial Wastesâ€™Raw Materials, Processes, and Quality. <i>Fermentation</i> , 2022, 8, 484.	3.0	6
1063	From the sea to aquafeed: A perspective overview. <i>Reviews in Aquaculture</i> , 2023, 15, 1028-1057.	9.0	14
1064	Prospects of cyanobacterial pigment production: Biotechnological potential and optimization strategies. <i>Biochemical Engineering Journal</i> , 2022, 187, 108640.	3.6	14
1065	Innovation from waste with biomass-derived chitin and chitosan as green and sustainable polymer: A review. <i>Energy Nexus</i> , 2022, 8, 100149.	7.7	14
1066	Review : Pengaruh Suplementasi Astaxhantin dalam Mencegah Photoaging. , 2021, 1, 60-69.		0
1067	Astaxanthin Exerts Immunomodulatory Effect by Regulating SDH-HIF-1Î± Axis and Reprogramming Mitochondrial Metabolism in LPS-Stimulated RAW264.7 Cells. <i>Marine Drugs</i> , 2022, 20, 660.	4.6	3
1068	Krill Oil Supplementation Does Not Change Waist Circumference and Sagittal Abdominal Diameter in Overweight Women: A Pilot Balanced, Double-Blind, and Placebo-Controlled Clinical Trial. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 13574.	2.6	1
1069	A critical review on antiâ€™fibrotic phytochemicals targeting activated hepatic stellate cells. <i>Journal of Food Biochemistry</i> , 2022, 46, .	2.9	1

#	ARTICLE	IF	CITATIONS
1070	The Role of Astaxanthin as a Nutraceutical in Health and Age-Related Conditions. <i>Molecules</i> , 2022, 27, 7167.	3.8	18
1071	Global seaweed farming and processing in the past 20 years. <i>Food Production Processing and Nutrition</i> , 2022, 4, .	3.5	25
1072	Astaxanthin effect on apoptotic biomarkers in methotrexate-induced liver injury. <i>Al Mustansiriyah Journal of Pharmaceutical Sciences</i> , 2022, 22, 43-50.	0.6	0
1073	Introduction to Traditional Medicine and Their Role in Prevention and Treatment of Emerging and Re-Emerging Diseases. <i>Biomolecules</i> , 2022, 12, 1442.	4.0	9
1074	Astaxanthin synthesized gold nanoparticles enhance salt stress tolerance in rice by enhancing tetrapyrrole biosynthesis and scavenging reactive oxygen species in vitro. <i>Plant Stress</i> , 2022, 6, 100122.	5.5	10
1075	Process model and techno-economic analysis of natural astaxanthin production from microalgae incorporating geospatial variabilities. <i>Bioresource Technology Reports</i> , 2022, 20, 101260.	2.7	2
1076	Recent advances in health benefits and bioavailability of dietary astaxanthin and its isomers. <i>Food Chemistry</i> , 2023, 404, 134605.	8.2	22
1077	Development of a 5-aminolevulinic acid feeding strategy capable of enhancing <i>Haematococcus pluvialis</i> biomass, astaxanthin, and fatty acid yields. <i>Bioresource Technology</i> , 2023, 368, 128319.	9.6	2
1078	Directed evolution of the fusion enzyme for improving astaxanthin biosynthesis in <i>Saccharomyces cerevisiae</i> . <i>Synthetic and Systems Biotechnology</i> , 2023, 8, 46-53.	3.7	7
1079	Amino-Acid-Conjugated Natural Compounds: Aims, Designs and Results. <i>Molecules</i> , 2022, 27, 7631.	3.8	8
1080	Fabrication and Characterization of Botanical-Based Double-Layered Emulsion: Protection of DHA and Astaxanthin Based on Interface Remodeling. <i>Foods</i> , 2022, 11, 3557.	4.3	1
1081	Industry chain and challenges of microalgal food industry-a review. <i>Critical Reviews in Food Science and Nutrition</i> , 0, , 1-28.	10.3	3
1082	Microalgae as sources of green bioactives for health-enhancing food supplements and nutraceuticals: A review of literature. , 0, 2, 10.		0
1083	Effects of Treatment and Pre-treatment of Ethanolamine on Production of Metabolites in <i>Haematococcus pluvialis</i> . <i>Iranian Journal of Science and Technology, Transaction A: Science</i> , 2023, 47, 27-33.	1.5	2
1084	Krill oil protects dopaminergic neurons from age-related degeneration through temporal transcriptome rewiring and suppression of several hallmarks of aging. <i>Aging</i> , 2022, 14, 8661-8687.	3.1	2
1085	Formulation development and evaluation of Transdermal patch of Astaxanthin. <i>Materials Today: Proceedings</i> , 2022, , .	1.8	0
1086	Improved physicochemical stability and bioaccessibility of astaxanthin-loaded oil-in-water emulsions by a casein-caffeic acid-glucose ternary conjugate. <i>Food Research International</i> , 2023, 163, 112153.	6.2	8
1087	Cinnamaldehyde causes developmental neurotoxicity in zebrafish via the oxidative stress pathway that is rescued by astaxanthin. <i>Food and Function</i> , 2022, 13, 13028-13039.	4.6	8

#	ARTICLE	IF	CITATIONS
1088	Emerging trends in the pretreatment of microalgal biomass and recovery of value-added products: A review. <i>Bioresource Technology</i> , 2023, 369, 128395.	9.6	12
1089	THE EFFECTS OF ASTAXANTHIN ON THE NERVOUS SYSTEM. <i>Samsun SaĖĖlĖk Bilimleri Dergisi</i> , 0, , .	0.2	0
1090	The Effect of Astaxanthin on the Functional State of Brain Mitochondria in Rats with Heart Failure. <i>Biophysics (Russian Federation)</i> , 2022, 67, 744-751.	0.7	0
1091	Astaxanthin Protects against Hyperglycemia-Induced Oxidative and Inflammatory Damage to Bone Marrow and to Bone Marrow-Retained Stem Cells and Restores Normal Hematopoiesis in Streptozotocin-Induced Diabetic Mice. <i>Antioxidants</i> , 2022, 11, 2321.	5.1	0
1092	Potential Cosmetic Active Ingredients Derived from Marine By-Products. <i>Marine Drugs</i> , 2022, 20, 734.	4.6	10
1093	Synthetic biology for sustainable food ingredients production: recent trends. <i>Systems Microbiology and Biomanufacturing</i> , 2023, 3, 137-149.	2.9	7
1094	Utilization of astaxanthin from microalgae and carotenoid rich algal biomass as a feed supplement in aquaculture and poultry industry: An overview. <i>Journal of Applied Phycology</i> , 2023, 35, 145-171.	2.8	16
1095	The Use of Astaxanthin as a Natural Antioxidant on Ovarian Damage. , 0, , .		3
1096	Evaluation of Krill Meal in Commercial Diets for Juvenile Swimming Crab (<i>Portunus trituberculatus</i>). <i>Aquaculture Nutrition</i> , 2022, 2022, 1-13.	2.7	4
1097	Anti-Oxidant and Anti-Inflammatory Effects of Astaxanthin on Gastrointestinal Diseases. <i>International Journal of Molecular Sciences</i> , 2022, 23, 15471.	4.1	11
1098	Resveratrol and Astaxanthin Protect Primary Human Nasal Epithelial Cells Cultured at an Air-liquid Interface from an Acute Oxidant Exposure. , 2022, 3, .		0
1099	Natural Astaxanthin Is a Green Antioxidant Able to Counteract Lipid Peroxidation and Ferroptotic Cell Death. <i>International Journal of Molecular Sciences</i> , 2022, 23, 15137.	4.1	6
1100	Metabolite analysis of soybean oil on promoting astaxanthin production of <i>Phaffia rhodozyma</i> . <i>Journal of the Science of Food and Agriculture</i> , 2023, 103, 2997-3005.	3.5	3
1101	DiseĖo de huevos enriquecidos con astaxantina y hierro para reducir anemia infantil en la regiĖn Ica. <i>Revista Alfa</i> , 2022, 6, 537-544.	0.2	0
1102	Algal nutraceuticals: A perspective on metabolic diversity, current food applications, and prospects in the field of metabolomics. <i>Food Chemistry</i> , 2023, 409, 135295.	8.2	15
1103	The Improvement of Functional State of Brain Mitochondria with Astaxanthin in Rats after Heart Failure. <i>International Journal of Molecular Sciences</i> , 2023, 24, 31.	4.1	1
1104	Comparison of the Retention Rates of Synthetic and Natural Astaxanthin in Feeds and Their Effects on Pigmentation, Growth, and Health in Rainbow Trout (<i>Oncorhynchus mykiss</i>). <i>Antioxidants</i> , 2022, 11, 2473.	5.1	8
1105	Effects of shear stress and shear protectants on heterotrophic culture of <i>Haematococcus pluvialis</i> . <i>Algal Research</i> , 2023, 69, 102936.	4.6	0

#	ARTICLE	IF	CITATIONS
1106	Sustainable Production of Pigments from Cyanobacteria. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2022, , 171-251.	1.1	0
1107	Commercial Astaxanthin Production from Green Alga <i>Haematococcus pluvialis</i> . , 2023, , 279-304.		1
1108	Environmentally persistent free radicals enhance SARS-CoV-2 replication in respiratory epithelium. <i>Experimental Biology and Medicine</i> , 2023, 248, 271-279.	2.4	3
1110	An enhanced electron transport chain improved astaxanthin production in <i>Phaffia rhodozyma</i> . <i>Biotechnology and Bioengineering</i> , 2023, 120, 1382-1398.	3.3	2
1111	Recent progress in practical applications of a potential carotenoid astaxanthin in aquaculture industry: a review. <i>Fish Physiology and Biochemistry</i> , 0, , .	2.3	15
1112	A comprehensive review on algal nutraceuticals as prospective therapeutic agent for different diseases. <i>3 Biotech</i> , 2023, 13, .	2.2	6
1113	Potential Properties of Natural Nutraceuticals and Antioxidants in Age-Related Eye Disorders. <i>Life</i> , 2023, 13, 77.	2.4	4
1114	Antioxidant potential of carotenoids derived from marine bacteria and their applications. , 2023, , 311-315.		1
1115	Evaluation of the Feasibility of Harvest Optimisation of Soft-Shell Mud Crab (<i>Scylla paramamosain</i>) from the Perspective of Nutritional Values. <i>Foods</i> , 2023, 12, 583.	4.3	4
1116	ALSUntangled # 69: astaxanthin. <i>Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration</i> , 0, , 1-5.	1.7	0
1117	Seafood and shellfish. , 2023, , 281-302.		1
1118	Marine antioxidants and their role in improving skin health. , 2023, , 327-339.		0
1119	Antioxidants obtained from marine sources. , 2023, , 45-56.		0
1120	Marine antioxidants from microalgae. , 2023, , 141-160.		0
1121	Photobioreactor systems for production of astaxanthin from microalgae. , 2023, , 229-246.		1
1122	Serum Nutritional Biomarkers and All-Cause and Cause-Specific Mortality in U.S. Adults with Metabolic Syndrome: The Results from National Health and Nutrition Examination Survey 2001–2006. <i>Nutrients</i> , 2023, 15, 553.	4.1	3
1123	Astaxanthin treatment ameliorates ER stress in polycystic ovary syndrome patients: a randomized clinical trial. <i>Scientific Reports</i> , 2023, 13, .	3.3	6
1124	Astaxanthin: A promising therapeutic agent for organ fibrosis. <i>Pharmacological Research</i> , 2023, 188, 106657.	7.1	11

#	ARTICLE	IF	CITATIONS
1125	Active compound analysis of ethanolic extract of roselle calyces (<i>Hibiscus sabdariffa</i> L.). Quality Assurance and Safety of Crops and Foods, 2023, 15, 117-128.	3.4	2
1126	Microbial carotenoid production and their potential applications as antioxidants: A current update. Process Biochemistry, 2023, 128, 190-205.	3.7	12
1127	Analysis of carotenoids and fatty acid compositions in Atlantic salmon exposed to elevated temperatures and displaying flesh color loss. Food Chemistry, 2023, 417, 135867.	8.2	1
1128	Changes of visual appeal and bioactive nutritional profiles of the astaxanthin-accumulated new variety and wild-type prawn in <i>Exopalaemon carinicauda</i> submitted to different domestic cooking processes. Journal of Food Composition and Analysis, 2023, 120, 105326.	3.9	1
1129	Formation mechanism and stability of low environment-sensitive ternary nanoparticles based on zein-pea protein-pectin for astaxanthin delivery. Food Bioscience, 2023, 52, 102409.	4.4	5
1130	Astaxanthin attenuates cigarette smoking-induced oxidative stress and inflammation in a sirtuin 1-dependent manner. Biomedicine and Pharmacotherapy, 2023, 159, 114230.	5.6	5
1131	Highly Active Astaxanthin Production from Waste Molasses by Mutated <i>Rhodospiridium toruloides</i> G17. Fermentation, 2023, 9, 148.	3.0	4
1132	Nutraceutical approaches to non-alcoholic fatty liver disease (NAFLD): A position paper from the International Lipid Expert Panel (ILEP). Pharmacological Research, 2023, 189, 106679.	7.1	15
1133	Improving the biological activities of astaxanthin using targeted delivery systems. Critical Reviews in Food Science and Nutrition, 0, , 1-22.	10.3	0
1134	Extracellular Vesicles, as Drug-Delivery Vehicles, Improve the Biological Activities of Astaxanthin. Antioxidants, 2023, 12, 473.	5.1	1
1135	INTERACTION OF BIOACTIVE COMPOUNDS WITH CERAMIC MATERIALS – A REVIEW. , 2022, 7, 47-82.		0
1136	Optimization of Pigment Extraction from <i>Aristeus alcocki</i> Shell Wastes via Different Solvent Systems. Journal of Aquatic Food Product Technology, 2023, 32, 185-195.	1.4	2
1137	Value addition to seafood processing waste by using enzymes. , 2023, , 95-106.		0
1138	Bacterial Pigments and Their Multifaceted Roles in Contemporary Biotechnology and Pharmacological Applications. Microorganisms, 2023, 11, 614.	3.6	6
1139	Microencapsulation of astaxanthin by ionic gelation: effect of different gelling polymers on the carotenoid load, stability and bioaccessibility. International Journal of Food Science and Technology, 2023, 58, 2489-2497.	2.7	3
1140	Sources, dynamics in vivo, and application of astaxanthin and lutein in laying hens: A review. Animal Nutrition, 2023, 13, 324-333.	5.1	4
1141	Extraction of astaxanthin from fermented <i>Acetes</i> using virgin coconut oil with the glass beads vortex method. OCL - Oilseeds and Fats, Crops and Lipids, 2023, 30, 4.	1.4	0
1142	The Effect of Antioxidant Astaxanthin on Intestinal Ischemia Reperfusion Damage in Rats. Journal of Investigative Surgery, 2023, 36, .	1.3	1

#	ARTICLE	IF	CITATIONS
1143	Research progress of Astaxanthin nano-based drug delivery system: Applications, prospects and challenges?. <i>Frontiers in Pharmacology</i> , 0, 14, .	3.5	7
1144	The potential of manipulating light for the commercial production of carotenoids from algae. <i>Algal Research</i> , 2023, 71, 103047.	4.6	4
1145	Astaxanthin as a King of Ketocarotenoids: Structure, Synthesis, Accumulation, Bioavailability and Antioxidant Properties. <i>Marine Drugs</i> , 2023, 21, 176.	4.6	15
1146	Valorization of Food Waste to Produce Value-Added Products Based on Its Bioactive Compounds. <i>Processes</i> , 2023, 11, 840.	2.8	30
1147	Expression of fatty acid related gene promotes astaxanthin heterologous production in <i>Chlamydomonas reinhardtii</i> . <i>Frontiers in Nutrition</i> , 0, 10, .	3.7	2
1148	Nanostructured steady-state nanocarriers for nutrients preservation and delivery. <i>Advances in Food and Nutrition Research</i> , 2023, , .	3.0	0
1149	The protective effects of flavonoids and carotenoids against diabetic complicationsâ€”A review of in vivo evidence. <i>Frontiers in Nutrition</i> , 0, 10, .	3.7	9
1150	Nose to Brain Delivery of Astaxanthinâ€”Loaded Nanostructured Lipid Carriers in Rat Model of Alzheimerâ€™s Disease: Preparation, in vitro and in vivo Evaluation. <i>International Journal of Nanomedicine</i> , 0, Volume 18, 1631-1658.	6.7	6
1151	Dietary supplements and drugs available in India along with the mechanism of action and clinical trial data for the medical management of age related macular degeneration (AMD). <i>Indian Journal of Clinical and Experimental Ophthalmology</i> , 2023, 9, 9-18.	0.0	0
1152	Use microfluidics to create microdroplets for culturing and investigating algal cells in a high-throughput manner. <i>Microfluidics and Nanofluidics</i> , 2023, 27, .	2.2	0
1153	The Biochemistry and Effectiveness of Antioxidants in Food, Fruits, and Marine Algae. <i>Antioxidants</i> , 2023, 12, 860.	5.1	19
1154	Progress and Prospective of the Industrial Development and Applications of Eco-Friendly Colorants: An Insight into Environmental Impact and Sustainability Issues. <i>Foods</i> , 2023, 12, 1521.	4.3	8
1155	Effects of Natural and Synthetic Astaxanthin on Growth, Body Color, and Transcriptome and Metabolome Profiles in the Leopard Coralgroup (Plectropomus leopardus). <i>Animals</i> , 2023, 13, 1252.	2.3	4
1156	Astaxanthin. , 2023, , 1-41.		0
1157	Lipid Droplets from Plants and Microalgae: Characteristics, Extractions, and Applications. <i>Biology</i> , 2023, 12, 594.	2.8	6
1159	Activation of Nrf2 pathway as a protective mechanism against oxidative stress-induced diseases: Potential of astaxanthin. <i>Archives of Biochemistry and Biophysics</i> , 2023, 741, 109601.	3.0	8
1160	Effect of Adding Annatto Seed Powder (<i>Bixa orellana</i>) and Astaxanthin to the Diet in the Productive Performance of Broilers(Ross-308). <i>IOP Conference Series: Earth and Environmental Science</i> , 2023, 1158, 052021.	0.3	0
1161	Cultivation of the polyextremophile <i>Cyanidioschyzon merolae</i> 10D during summer conditions on the coast of the Red Sea and its adaptation to hypersaline sea water. <i>Frontiers in Microbiology</i> , 0, 14, .	3.5	5

#	ARTICLE	IF	CITATIONS
1162	Roles of Marine Macroalgae or Seaweeds and Their Bioactive Compounds in Combating Overweight, Obesity and Diabetes: A Comprehensive Review. <i>Marine Drugs</i> , 2023, 21, 258.	4.6	3
1164	Raman spectroscopic signals of carotenoid distribution during stages of cell growth of unicellular organisms and plant cells. <i>Journal of Raman Spectroscopy</i> , 0, , .	2.5	0
1165	Metabolomics of astaxanthin biosynthesis and corresponding regulation strategies in <i>Phaffia rhodozyma</i> . <i>Yeast</i> , 2023, 40, 254-264.	1.7	2
1166	Therapeutic Strategies to Ameliorate Neuronal Damage in Epilepsy by Regulating Oxidative Stress, Mitochondrial Dysfunction, and Neuroinflammation. <i>Brain Sciences</i> , 2023, 13, 784.	2.3	7
1167	Effect of Biosynthesized Silver Nanoparticles on the Growth of the Green Microalga <i>Haematococcus pluvialis</i> and Astaxanthin Synthesis. <i>Nanomaterials</i> , 2023, 13, 1618.	4.1	2
1168	Industrially Important Fungal Carotenoids: Advancements in Biotechnological Production and Extraction. <i>Journal of Fungi (Basel, Switzerland)</i> , 2023, 9, 578.	3.5	3
1169	Astaxanthin protected against the adverse effects induced by diesel exhaust particulate matter via improving membrane stability and anti-oxidative property. <i>Journal of Hazardous Materials</i> , 2023, 456, 131684.	12.4	2
1170	<i>In Vitro</i> Evaluation of Skin-Related Physicochemical Properties and Biological Activities of Astaxanthin Isomers. <i>ACS Omega</i> , 2023, 8, 19311-19319.	3.5	5
1171	Development of a Microbial-Assisted Process for Enhanced Astaxanthin Recovery from Crab Exoskeleton Waste. <i>Fermentation</i> , 2023, 9, 505.	3.0	4
1172	Astaxanthin Extract from <i>Haematococcus pluvialis</i> and Its Fractions of Astaxanthin Mono- and Diesters Obtained by CCC Show Differential Antioxidant and Cytoprotective Effects on Na ⁺ -ve-Mouse Spleen Cells. <i>Antioxidants</i> , 2023, 12, 1144.	5.1	0
1173	Genomic Insight and Optimization of Astaxanthin Production from a New <i>Rhodotorula</i> sp. CP72-2. <i>Fermentation</i> , 2023, 9, 501.	3.0	0
1174	Regulation of Acetylation States by Nutrients in the Inhibition of Vascular Inflammation and Atherosclerosis. <i>International Journal of Molecular Sciences</i> , 2023, 24, 9338.	4.1	5
1175	Microalgae, Seaweeds and Aquatic Bacteria, Archaea, and Yeasts: Sources of Carotenoids with Potential Antioxidant and Anti-Inflammatory Health-Promoting Actions in the Sustainability Era. <i>Marine Drugs</i> , 2023, 21, 340.	4.6	9
1176	Enhancement of astaxanthin production from food waste by <i>Phaffia rhodozyma</i> screened by flow cytometry and feed application potential. <i>Biotechnology and Applied Biochemistry</i> , 2023, 70, 1817-1829.	3.1	0
1177	A comprehensive review on astaxanthin sources, structure, biochemistry and applications in the cosmetic industry. <i>Algal Research</i> , 2023, 74, 103168.	4.6	1
1178	Traditional Chinese medicines and natural products targeting immune cells in the treatment of metabolic-related fatty liver disease. <i>Frontiers in Pharmacology</i> , 0, 14, .	3.5	3
1179	Optimization and identification of astaxanthin esters from shrimp waste using microbial fermentation method. <i>Biomass Conversion and Biorefinery</i> , 0, , .	4.6	0
1181	In vitro effects of astaxanthin on bacterial and cell viability, cell migration and mitochondrial activities in four fish cell lines. <i>Aquaculture Reports</i> , 2023, 31, 101636.	1.7	0

#	ARTICLE	IF	CITATIONS
1182	Sustainable production of astaxanthin from <i>Dilocarcinus pagei</i> crab and optimisation of its extraction with edible oils. <i>Heliyon</i> , 2023, 9, e17381.	3.2	1
1183	Lipids and high-value astaxanthin produced in a cupboard by heterotrophic <i>Chromochloris zofingiensis</i> : Improvement of process efficiency. <i>Algal Research</i> , 2023, 74, 103175.	4.6	0
1184	Phytochemical analysis of <i>Origanum majorana</i> L. extract and investigation of its antioxidant, anti-inflammatory and immunomodulatory effects against experimentally induced colitis downregulating Th17 cells.. <i>Journal of Ethnopharmacology</i> , 2023, 317, 116826.	4.1	1
1185	From waste to value-added products: A review of opportunities for fish waste valorization. <i>Environmental Quality Management</i> , 0, , .	1.9	0
1186	A Single-Center Study Evaluating the Effects of a Topical Serum (GSYBS-7) Combining Postbiotics, Peptides, and Botanical Extracts on Facial Skin. <i>Aesthetic Surgery Journal Open Forum</i> , 0, , .	1.0	0
1187	SPC212 human mesothelioma cells underwent apoptosis, oxidative stress, and morphological deformation following Astaxanthin treatment. <i>Journal of Biochemical and Molecular Toxicology</i> , 0, , .	3.0	0
1188	Encapsulation of microalgal-based carotenoids: Recent advances in stability and food applications. <i>Trends in Food Science and Technology</i> , 2023, 138, 382-398.	15.1	5
1189	Molecular approaches to enhance astaxanthin biosynthesis; future outlook: engineering of transcription factors in <i>Haematococcus pluvialis</i> . <i>Critical Reviews in Biotechnology</i> , 0, , 1-16.	9.0	2
1190	Production and therapeutic use of astaxanthin in the nanotechnology era. <i>Pharmacological Reports</i> , 2023, 75, 771-790.	3.3	3
1191	Natural Immunomodulators in Cancer Therapy. , 2023, , 216-242.		0
1192	Microbial astaxanthin: from bioprocessing to the market recognition. <i>Applied Microbiology and Biotechnology</i> , 2023, 107, 4199-4215.	3.6	2
1193	Health benefits of astaxanthin and its encapsulation for improving bioavailability: A review. <i>Journal of Agriculture and Food Research</i> , 2023, 14, 100685.	2.5	2
1194	Engineered ketocarotenoid biosynthesis in the polyextremophilic red microalga <i>Cyanidioschyzon merolae</i> 10D. <i>Metabolic Engineering Communications</i> , 2023, 17, e00226.	3.6	2
1195	More Than Pigments: The Potential of Astaxanthin and Bacterioruberin-Based Nanomedicines. <i>Pharmaceutics</i> , 2023, 15, 1828.	4.5	7
1196	Enhanced Carotenoid Production in <i>Chlamydomonas reinhardtii</i> by Overexpression of Endogenous and Exogenous Beta-Carotene Ketolase (BKT) Genes. <i>International Journal of Molecular Sciences</i> , 2023, 24, 11382.	4.1	1
1197	<i>Micrococcus</i> spp. as a promising source for drug discovery: A review. <i>Journal of Industrial Microbiology and Biotechnology</i> , 0, , .	3.0	0
1198	Oxidative stress, the blood-brain barrier and neurodegenerative diseases: The critical beneficial role of dietary antioxidants. <i>Acta Pharmaceutica Sinica B</i> , 2023, 13, 3988-4024.	12.0	9
1199	Astaxanthin as a Potent Antioxidant for Promoting Bone Health: An Up-to-Date Review. <i>Antioxidants</i> , 2023, 12, 1480.	5.1	1

#	ARTICLE	IF	CITATIONS
1200	Biologically Active Compounds from Probiotic Microorganisms and Plant Extracts Used as Biopreservatives. <i>Microorganisms</i> , 2023, 11, 1896.	3.6	3
1201	A chromosome-level genome assembly for the astaxanthin-producing microalga <i>Haematococcus pluvialis</i> . <i>Scientific Data</i> , 2023, 10, .	5.3	2
1202	Preventative and Therapeutic Effects of Astaxanthin on NAFLD. <i>Antioxidants</i> , 2023, 12, 1552.	5.1	2
1203	Astaxanthin protects the radiation-induced lung injury in C57BL/6 female mice. <i>Radiation Protection Dosimetry</i> , 0, , .	0.8	0
1204	Comparative de novo transcriptome analysis and random UV mutagenesis: application in high biomass and astaxanthin production enhancement for <i>Haematococcus pluvialis</i> . <i>Molecular Biology Reports</i> , 0, , .	2.3	0
1206	Modeling of astaxanthin biosynthesis via machine learning, mathematical and metabolic network modeling. <i>Critical Reviews in Biotechnology</i> , 0, , 1-22.	9.0	1
1207	Therapeutic Potentials of Microalgae and Their Bioactive Compounds on Diabetes Mellitus. <i>Marine Drugs</i> , 2023, 21, 462.	4.6	1
1208	A study on the effect of natural products against the transmission of B.1.1.529 Omicron. <i>Virology Journal</i> , 2023, 20, .	3.4	4
1209	Ultrasonic-Assisted Extraction of Astaxanthin from Shrimp By-Products Using Vegetable Oils. <i>Marine Drugs</i> , 2023, 21, 467.	4.6	1
1210	A Multicenter, Randomized, Double-Blinded, Placebo-Controlled Clinical Trial to Evaluate the Efficacy and Safety of a Krill Oil, Astaxanthin, and Oral Hyaluronic Acid Complex on Joint Health in People with Mild Osteoarthritis. <i>Nutrients</i> , 2023, 15, 3769.	4.1	1
1211	Synthesis of highly stable encapsulated astaxanthin/ β -cyclodextrin microparticles using supercritical CO ₂ as an antisolvent. <i>Journal of CO₂ Utilization</i> , 2023, 75, 102575.	6.8	2
1212	Effects of lipid extract from blue mussel (<i>Mytilus edulis</i>) on gut microbiota, and its relationship with glycemic traits in type 2 diabetes mellitus patients: a double-blind randomized controlled trial. <i>Food and Function</i> , 2023, 14, 8922-8932.	4.6	1
1213	Comprehensive Comparison of Effects of Antioxidant (Astaxanthin) Supplementation from Different Sources in <i>Haliothis discus hannai</i> Diet. <i>Antioxidants</i> , 2023, 12, 1641.	5.1	0
1214	Heterologous Production in the <i>Synechocystis</i> Chassis Suggests the Biosynthetic Pathway of Astaxanthin in Cyanobacteria. <i>Antioxidants</i> , 2023, 12, 1826.	5.1	1
1215	A Review of the Chemistry and Biological Activities of Natural Colorants, Dyes, and Pigments: Challenges, and Opportunities for Food, Cosmetics, and Pharmaceutical Application. <i>Chemistry and Biodiversity</i> , 2023, 20, .	2.1	1
1216	Advances in the study of acetaminophen-induced liver injury. <i>Frontiers in Pharmacology</i> , 0, 14, .	3.5	1
1217	A clinical study and future prospects for bioactive compounds and semi-synthetic molecules in the therapies for Huntington's disease. <i>Molecular Neurobiology</i> , 2024, 61, 1237-1270.	4.0	1
1218	Role of herbal, nutraceutical and synthetic agents in oligoasthenoteratozoospermia: A comparative assessment. , 2023, 3, 293-314.		0

#	ARTICLE	IF	CITATIONS
1219	Production of Astaxanthin by Animal Cells via Introduction of an Entire Astaxanthin Biosynthetic Pathway. <i>Bioengineering</i> , 2023, 10, 1073.	3.5	0
1220	Production of Astaxanthin Using Cbfd1/Hfbd1 from <i>Adonis aestivalis</i> and the Isopentenol Utilization Pathway in <i>Escherichia coli</i> . <i>Bioengineering</i> , 2023, 10, 1033.	3.5	0
1221	Chitin biorefinery: A narrative and prophecy of crustacean shell waste sustainable transformation into bioactives and renewable energy. <i>Renewable and Sustainable Energy Reviews</i> , 2023, 184, 113595.	16.4	0
1222	Natural dyes and pigments in food and beverages. , 2024, , 49-76.		0
1223	Food and Food Packaging Technology. , 2023, , 137-148.		0
1224	Microenvironment responsive pod-structured astaxanthin nanocarrier for ameliorating inflammatory bowel disease. <i>Chinese Chemical Letters</i> , 2024, 35, 109029.	9.0	2
1225	Astaxanthin induces autophagy and apoptosis in murine melanoma B16F10-Nex2 cells and exhibits antitumor activity <i>in vivo</i> . <i>Journal of Chemotherapy</i> , 0, , 1-16.	1.5	1
1226	Possibility of nanostructured lipid carriers encapsulating astaxanthin from <i>Haematococcus pluvialis</i> to alleviate skin injury in radiotherapy. <i>International Journal of Radiation Biology</i> , 2024, 100, 209-219.	1.8	0
1227	Valorising <i>Haematococcus</i> Biomass for Commercial Applications. , 2023, , 273-291.		0
1228	Effect of Adding Annatto Seed Powder (<i>Bixa orellana</i>) and Astaxanthin to the Diet in some Physiological Traits of Broiler (Ross-308). <i>IOP Conference Series: Earth and Environmental Science</i> , 2023, 1213, 012080.	0.3	0
1229	Abiotic Stress Factors and High Astaxanthin Accumulation in <i>Haematococcus pluvialis</i> . , 2023, , 33-58.		0
1230	Clinical Applications of <i>Haematococcus</i> . , 2023, , 211-228.		0
1231	Bioenergy Applications of <i>Haematococcus</i> . , 2023, , 339-359.		0
1232	Therapeutic Potential of <i>Haematococcus pluvialis</i> in the Field of Drug Delivery. , 2023, , 181-210.		0
1233	<i>Haematococcus</i> Cultivation for Astaxanthin Production. , 2023, , 59-68.		0
1234	Astaxanthin enhances autophagy, amyloid beta clearance and exerts anti-inflammatory effects in vitro models of Alzheimer's disease-related blood brain barrier dysfunction and inflammation. <i>Brain Research</i> , 2023, 1819, 148518.	2.2	2
1235	Efficacy of sunscreen gel infused with giant tiger prawn (<i>Penaeus monodon</i>) head extract. , 2023, 2, 122-134.		0
1236	Astaxanthin prevents nephrotoxicity through <i>Nrf2</i> / <i>HO-1</i> pathway. <i>Canadian Journal of Physiology and Pharmacology</i> , 0, , .	1.4	0

#	ARTICLE	IF	CITATIONS
1237	In-Depth Analysis of the Mechanism of Astaxanthin Succinate Diester in Reducing Ulcerative Colitis in C57BL/6J Mice Based on Microbiota Informatics. <i>Molecules</i> , 2023, 28, 6513.	3.8	0
1238	Comparison of milk protein concentrate, micellar casein, and whey protein isolate in loading astaxanthin after the treatment of ultrasound-assisted pH shifting. <i>Journal of Dairy Science</i> , 2024, 107, 141-154.	3.4	1
1239	Supplement astaxanthin affects PPAR- β /miR-27a axis and metabolic profile. <i>Gene Reports</i> , 2023, 33, 101838.	0.8	0
1240	EVALUATION OF FABRICATED SOLID MICRONEEDLES AS SMART APPROACH FOR TRANSDERMAL DRUG DELIVERY SYSTEM OF ASTAXANTHIN. <i>International Journal of Applied Pharmaceutics</i> , 0, , 255-262.	0.3	1
1241	Characterization of a <i>Chromochloris zofingiensis</i> mutant with enhanced canthaxanthin accumulation. <i>Algal Research</i> , 2023, 75, 103260.	4.6	0
1242	Astaxanthin. , 2023, , 687-727.		0
1243	Effects of organic carbon source and pH on growth, astaxanthin accumulation and endogenous phytohormone secretion of <i>Haematococcus pluvialis</i> . <i>Journal of Applied Phycology</i> , 0, , .	2.8	0
1244	A crosswalk on the genetic and conventional strategies for enhancing astaxanthin production in <i>Haematococcus pluvialis</i> . <i>Critical Reviews in Biotechnology</i> , 0, , 1-22.	9.0	1
1245	Immature <i>Halyomorpha halys</i> (Hemiptera: Pentatomidae) adults are potential edible insects rich in carotenoids. <i>Applied Entomology and Zoology</i> , 0, , .	1.2	0
1246	Optimized UVC-LED condition to improve the shelf life of vacuum-packed refrigerated stored rainbow trout (<i>Oncorhynchus mykiss</i>) fillets. <i>Food Control</i> , 2024, 156, 110141.	5.5	1
1247	Astaxanthin encapsulation in soybean protein isolate-“sodium alginate complexes” stabilized nanoemulsions: antioxidant activities, environmental stability, and <i>in vitro</i> digestibility. <i>Journal of the Science of Food and Agriculture</i> , 2024, 104, 1539-1552.	3.5	0
1248	Structural characterisation of bioactive compounds of <i>Gymnosporia senegalensis</i> (Lam.) Loes. using advanced analytical technique like FT-IR, GC-MS and ¹ H-NMR spectroscopy. <i>Natural Product Research</i> , 0, , 1-11.	1.8	2
1249	Microbial pigments: Sources, current status, future challenges in cosmetics and therapeutic applications. <i>Journal of Basic Microbiology</i> , 2024, 64, 4-21.	3.3	1
1250	Phytochemistry, bioactive potential, and chemical characterization of free-floating algae <i>Ulva profunda</i> W.R.Taylor “ a lesser known species from Andhra Pradesh, India. <i>Biomass Conversion and Biorefinery</i> , 0, , .	4.6	0
1252	Algal Photoprotective Phytochemicals: Sources and Potential Applications. , 2023, , 33-64.		0
1253	Maximizing crustaceans (shrimp, crab, and lobster) by-products value for optimum valorization practices: A comparative review of their active ingredients, extraction, bioprocesses and applications. <i>Journal of Advanced Research</i> , 2024, 57, 59-76.	9.5	0
1254	Role of Carotenoids in Parkinson’s Diseases. <i>Physiology</i> , 0, , .	10.0	0
1255	Exploring Microbial Contributions to Nutraceutical Production: From Natural to Designed Foods. <i>Molecular Biotechnology</i> , 0, , .	2.4	0

#	ARTICLE	IF	CITATIONS
1256	Captivating Colors, Crucial Roles: Astaxanthin's Antioxidant Impact on Fish Oxidative Stress and Reproductive Performance. <i>Animals</i> , 2023, 13, 3357.	2.3	0
1257	Production of Red Plant Pigments. <i>Reference Series in Phytochemistry</i> , 2023, , 1-37.	0.4	0
1258	Docosahexaenoic Acid-Acylated Astaxanthin Monoester Ameliorates Amyloid Pathology and Neuronal Damage by Restoring Autophagy in Alzheimer's Disease Models. <i>Molecular Nutrition and Food Research</i> , 0, , .	3.3	0
1259	The prooxidant effect of natural antioxidants combination when co-encapsulated to chia oil-based nutraceutical edible powders: More is not always better. <i>European Journal of Lipid Science and Technology</i> , 0, , .	1.5	0
1260	Astaxanthin and meclizine extend lifespan in UM-HET3 male mice; fisetin, SG1002 (hydrogen sulfide) Tj ETQq 0 0 0 rgBT /Overlock 10 Tf lifespan in either sex at the doses and schedules used. <i>GeroScience</i> , 2024, 46, 795-816.	4.6	1
1261	Characterization and Biological Activities of Yeasts Isolated from Marine Environments. <i>Microbiology Research</i> , 2023, 14, 1984-1999.	1.9	0
1262	Characterization and identification of antimicrobial compounds from endophytic <i>Fusarium incarnatum</i> isolated from <i>Cymbidium</i> orchids. <i>International Microbiology</i> , 0, , .	2.4	0
1263	Astaxanthin-enriched <i>Oedocladium</i> sp. improves liver health by enhancing fatty acid oxidation and suppressing inflammation in <i>Trachinotus ovatus</i> that was fed a high-fat diet. <i>Animal Feed Science and Technology</i> , 2023, 306, 115813.	2.2	0
1264	Astaxanthin protects human ARPE-19 retinal pigment epithelium cells from blue light-induced phototoxicity by scavenging singlet oxygen. <i>Free Radical Research</i> , 0, , 1-14.	3.3	0
1266	G�da Takviyesi Olarak Astaksantin ve Sa�yl�k �zerine Etkileri. <i>Black Sea Journal of Health Science</i> , 0, , .	0.9	0
1267	Bioactive Properties of the Pigment Astaxanthin from <i>Haematococcus pluvialis</i> in Human Health. <i>Physiology</i> , 0, , .	10.0	0
1268	A critical review on phycoremediation of pollutants from wastewater a novel algae-based secondary treatment with the opportunities of production of value-added products. <i>Environmental Science and Pollution Research</i> , 2023, 30, 114844-114872.	5.3	2
1269	Astaxanthin alleviates fine particulate matter (PM _{2.5})-induced lung injury in rats by suppressing ferroptosis and apoptosis. <i>Food and Function</i> , 2023, 14, 10841-10854.	4.6	1
1270	Clinical effectiveness of krill oil supplementation on cardiovascular health in humans: An updated systematic review and meta-analysis of randomized controlled trials. <i>Diabetes and Metabolic Syndrome: Clinical Research and Reviews</i> , 2023, 17, 102909.	3.6	0
1271	Astaxanthin alleviates PM _{2.5} -induced cardiomyocyte injury via inhibiting ferroptosis. <i>Cellular and Molecular Biology Letters</i> , 2023, 28, .	7.0	0
1272	An automated and intelligent microfluidic platform for microalgae detection and monitoring. <i>Lab on A Chip</i> , 2024, 24, 244-253.	6.0	1
1273	Growth strategies of <i>Chlorella vulgaris</i> in seawater for a high production of biomass and lipids suitable for biodiesel. <i>Algal Research</i> , 2024, 77, 103360.	4.6	1
1274	Enhanced astaxanthin production by <i>Aurantiochytrium</i> sp. CJ6 using sorghum distillery residue (SDR)-based growth medium and SDR-derived biochar carrier. <i>Biochemical Engineering Journal</i> , 2024, 203, 109185.	3.6	1

#	ARTICLE	IF	CITATIONS
1275	The role of carotenoids in bone healthâ€™A narrative review. <i>Nutrition</i> , 2024, 119, 112306.	2.4	0
1276	Effects of dietary histidine level on growth, antioxidant capacity and TOR signaling pathway in juvenile swimming crabs, <i>Portunus trituberculatus</i> . <i>Aquaculture Reports</i> , 2023, 33, 101869.	1.7	0
1277	A Comparative Analysis of the Nutritional Quality of Salmon Species in Canada among Different Production Methods and Regions. <i>Aquaculture Research</i> , 2023, 2023, 1-12.	1.8	0
1278	Efficient supercritical carbon dioxide extraction of astaxanthin from <i>Hematococcus pluvialis</i> at high pressure. <i>Journal of Supercritical Fluids</i> , 2024, 205, 106145.	3.2	0
1279	Dietary Astaxanthin: A Promising Antioxidant and Anti-Inflammatory Agent for Brain Aging and Adult Neurogenesis. <i>Marine Drugs</i> , 2023, 21, 643.	4.6	1
1280	Examination of the effects of triacylglycerol lipase on astaxanthin conversion in the black tiger prawn <i>Penaeus monodon</i> . <i>Aquaculture</i> , 2024, 582, 740507.	3.5	0
1281	Biotechnological strategies overcoming limitations to <i>H. pluvialis</i> -derived astaxanthin production and Moroccoâ€™s potential. <i>Critical Reviews in Food Science and Nutrition</i> , 0, , 1-16.	10.3	0
1282	Effects of Astaxanthin Preparation Form on the Efficiency of Egg Yolk Pigmentation in Laying Hens. <i>Journal of Oleo Science</i> , 2024, 73, 25-34.	1.4	0
1283	Anti-skinaging effects of <i>Gryllus bimaculatus</i> on ERM-CZ100-exposed human diploid fibroblasts. <i>Journal of Nutrition and Health</i> , 2023, 56, 615.	0.8	0
1284	Fungi-derived natural antioxidants. <i>Critical Reviews in Food Science and Nutrition</i> , 0, , 1-24.	10.3	0
1285	The Effect of Dietary Supplementation with <i>Haematococcus pluvialis</i> for Enhanced Pigmentation in <i>Amphiprion ocellaris</i> . <i>Aquaculture Research</i> , 2023, 2023, 1-9.	1.8	0
1286	Optimization of media components for enhanced carotenoid production by <i>Paracoccus marcusii</i> RSP01 and assessment of their cytotoxicity against A549 and vero cells. <i>Preparative Biochemistry and Biotechnology</i> , 0, , 1-15.	1.9	0
1287	Natural products as pharmacological modulators of mitochondrial dysfunctions for the treatment of diabetes and its complications: An update since 2010. <i>Pharmacological Research</i> , 2024, 200, 107054.	7.1	0
1288	Effects of dietary astaxanthin on growth performance, muscle composition, non-specific immunity, gene expression, and ammonia resistance of juvenile ivory shell (<i>Babylonia areolate</i>). <i>Fish and Shellfish Immunology</i> , 2024, 145, 109363.	3.6	0
1289	Comparison of different extraction methods of active ingredients of Chinese medicine and natural products. <i>Journal of Separation Science</i> , 2024, 47, .	2.5	0
1290	Astaxanthin Improved the Quality of Hu Ram Semen by Increasing the Antioxidant Capacity and Mitochondrial Potential and Mitigating Free Radicals-Induced Oxidative Damage. <i>Animals</i> , 2024, 14, 319.	2.3	0
1291	Practical approach to the use of microalgae in aquaculture feeds. , 2024, , 209-233.		0
1292	Anticancer Activity of Astaxanthin-Incorporated Chitosan Nanoparticles. <i>Molecules</i> , 2024, 29, 529.	3.8	0

#	ARTICLE	IF	CITATIONS
1293	Marine Phytoplankton: Bioactive Compounds and Their Applications in Medicine. , 2023, , 251-282.		0
1294	Seafood processing waste as a source of functional components: Extraction and applications for various food and non-food systems. Trends in Food Science and Technology, 2024, 145, 104348.	15.1	1
1296	Orally administered dual-targeted astaxanthin nanoparticles as novel dietary supplements for alleviating hepatocyte oxidative stress. Food and Function, 2024, 15, 2131-2143.	4.6	0
1297	The Combined Effects of High-Intensity Interval Exercise Training and Dietary Supplementation on Reduction of Body Fat in Adults with Overweight and Obesity: A Systematic Review. Nutrients, 2024, 16, 355.	4.1	0
1298	Enhanced Z-Isomerization of Astaxanthin in <i>Paracoccus carotinifaciens</i> via Microwave Drying. Journal of Oleo Science, 2024, 73, 163-168.	1.4	0
1299	Marine Animal Co-Products—How Improving Their Use as Rich Sources of Health-Promoting Lipids Can Foster Sustainability. Marine Drugs, 2024, 22, 73.	4.6	0
1300	Programmed microalgae-gel promotes chronic wound healing in diabetes. Nature Communications, 2024, 15, .	12.8	1
1301	Compatibility study of astaxanthin with pharmaceutical excipients using thermal and nonthermal techniques for the development of TDDS. AIP Conference Proceedings, 2024, , .	0.4	0
1302	Microbial Cell Factories: Biodiversity, Pathway Construction, Robustness, and Industrial Applicability. Microbiology Research, 2024, 15, 247-272.	1.9	0
1303	Disruptive potential of microalgae proteins: Shaping the future of the food industry. Future Foods, 2024, 9, 100318.	5.4	0
1304	Antiphotaging effects of solvent fractions isolated from <i>Allomyrina dichotoma</i> larvae extract. Biochemistry and Biophysics Reports, 2024, 38, 101660.	1.3	0
1305	Omega-3 Enriched Fish and Shellfish Oils: Extraction, Preservation, and Health Benefits. , 2024, , 195-229.		0
1306	Green Solvents for Extraction of Natural Food Colorants from Plants: Selectivity and Stability Issues. Foods, 2024, 13, 605.	4.3	0
1307	Efficacy and Safety of Astaxanthin in the Management of Oral Submucous Fibrosis: A Preliminary Randomized Controlled Trial. Cureus, 2024, , .	0.5	0
1308	The Effect of Oxidative Stress on the Human Voice. International Journal of Molecular Sciences, 2024, 25, 2604.	4.1	0
1309	Photosynthetic nano fibers: Living microalgae packaging into polyvinyl alcohol nanofibers using an electrospinning method. Journal of Applied Polymer Science, 2024, 141, .	2.6	0
1310	Research Progress on Biological Activities of Astaxanthin. Hans Journal of Medicinal Chemistry, 2024, 12, 51-60.	0.1	0
1311	Application of plant extracts cosmetics in the field of anti-aging. , 2024, 1, 100014.		0

#	ARTICLE	IF	CITATIONS
1312	Bioactive Metabolites from Fungi with Anti-Inflammatory and Antithrombotic Properties: Current Status and Future Perspectives for Drug Development. , 2024, , 427-494.		0
1313	Influence of storage temperature and natural antioxidants addition on chia oil nutraceutical blends shelf life. European Journal of Lipid Science and Technology, 2024, 126, .	1.5	0
1314	Beneficial Effects of Astaxanthin on Health: A Natural Bioactive Carotenoid. Shiraz E Medical Journal, 2024, 25, .	0.3	0
1315	Astaxanthin application enhances salinity tolerance in rice seedlings by abating oxidative stress effects and enhancing Na ⁺ /K ⁺ homeostatic balance. Plant Growth Regulation, 0, , .	3.4	0
1316	Investigation the Anti-inflammatory Effect of Astaxanthin on Inhibiting TLR4 and Some Inflammatory Cytokines in macrophages cell. , 2023, 14, 309-324.		0
1318	Liposomes Containing Esters of the Natural Antioxidant Astaxanthin Modified with Pluronic F68 or DSPE-PEG 2000. Nanobiotechnology Reports, 2023, 18, S240-S249.	0.6	0
1319	Effects of Different Astaxanthin Sources on Fillet Coloration and Energy Deposition in Rainbow Trout (<i>Oncorhynchus mykiss</i>). Aquaculture Nutrition, 2024, 2024, 1-11.	2.7	0
1320	Biosynthesis of gold nanoparticles mediated by medicinal phytometabolites: An effective tool against <i>Plasmodium falciparum</i> and human breast cancer cells. Journal of Drug Delivery Science and Technology, 2024, 95, 105520.	3.0	0
1321	Northern shrimp (<i>Pandalus borealis</i>) protein hydrolyzate and oil promote flesh pigmentation and growth in post-smolt Atlantic salmon (<i>Salmo salar</i>). Journal of Applied Aquaculture, 0, , 1-18.	1.4	0
1322	Impacts of astaxanthin-enriched <i>Paracoccus carotinifaciens</i> on growth, immune responses, and reproduction performance of broodstock Nile tilapia during winter season. Fish Physiology and Biochemistry, 0, , .	2.3	0
1323	Prevention of Hypercholesterolemia with "Liposomes in Microspheres" Composite Carriers: A Promising Approach for Intestinal-Targeted Oral Delivery of Astaxanthin. Journal of Agricultural and Food Chemistry, 2024, 72, 6118-6132.	5.2	0