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Astaxanthin decreased oxidative stress and inflammation and enhanced immune response in humans

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#	Paper	IF	Citations
347	Effects of Supplementation with Neptune Krill Oil (Euphasia Superba) on Selected Redox Parameters and Pro-Inflammatory Markers in Athletes during Exhaustive Exercise. <b>2010</b> , 25, 49-57		13
346	Astaxanthin uptake in domestic dogs and cats. <i>Nutrition and Metabolism</i> , <b>2010</b> , 7, 52	4.6	22
345	Antioxidant-chemoprevention diet ameliorates late effects of total-body irradiation and supplements radioprotection by MnSOD-plasmid liposome administration. <b>2011</b> , 175, 759-65		46
344	Pharmacological and biochemical studies on the role of free radicals during stress-induced immunomodulation in rats. <b>2011</b> , 11, 1680-4		12
343	Dietary astaxanthin enhances immune response in dogs. <b>2011</b> , 140, 199-206		56
342	Astaxanthin stimulates cell-mediated and humoral immune responses in cats. <b>2011</b> , 144, 455-61		35
341	Astaxanthin: a potential therapeutic agent in cardiovascular disease. <b>2011</b> , 9, 447-65		224
340	Potential health-promoting effects of astaxanthin: a high-value carotenoid mostly from microalgae. <b>2011</b> , 55, 150-65		388
339	Astaxanthin-rich extract from the green alga Haematococcus pluvialis lowers plasma lipid concentrations and enhances antioxidant defense in apolipoprotein E knockout mice. <b>2011</b> , 141, 1611-	7	87
338	Antioxidant, antinociceptive, and anti-inflammatory effects of carotenoids extracted from dried pepper (Capsicum annuum L.). <b>2012</b> , 2012, 524019		58
337	Astaxanthin in cardiovascular health and disease. <b>2012</b> , 17, 2030-48		104
336	Simple Lipids with Only One Component. <b>2012</b> , 3-168		
335	Stabilization of membrane bound ATPases and lipid peroxidation by carotenoids from Chlorococcum humicola in Benzo(a)pyrene induced toxicity. <b>2012</b> , 2, 380-4		4
334	Astaxanthin prevents loss of insulin signaling and improves glucose metabolism in liver of insulin resistant mice. <b>2012</b> , 90, 1544-52		71
333	Minimizing the cancer-promotional activity of cox-2 as a central strategy in cancer prevention. <b>2012</b> , 78, 45-57		25
332	Astaxanthin protects against MPP(+)-induced oxidative stress in PC12 cells via the HO-1/NOX2 axis. <b>2012</b> , 13, 156		60
331	Effects of astaxanthin supplementation on chemically induced tumorigenesis in Wistar rats. <b>2012</b> , 54, 50		13

# (2013-2012)

330	Astaxanthin treatment reduced oxidative induced pro-inflammatory cytokines secretion in U937: SHP-1 as a novel biological target. <b>2012</b> , 10, 890-9	87
329	Anticoagulatory and antiinflammatory effects of astaxanthin in diabetic rats. <b>2012</b> , 77, H76-80	37
328	Carotenoids and DNA damage. <b>2012</b> , 733, 4-13	44
327	Novel phytonutrient contributors to antioxidant protection against cardiovascular disease. <b>2012</b> , 28, 605-10	62
326	Enhanced cognitive function and antidepressant-like effects after krill oil supplementation in rats. <b>2013</b> , 12, 6	33
325	Biotechnology for Enhanced Nutritional Quality in Plants. <b>2013</b> , 32, 321-343	7
324	Potential for green microalgae to produce hydrogen, pharmaceuticals and other high value products in a combined process. <b>2013</b> , 33, 172-215	196
323	In vivo bioavailability and antioxidant activity of carotenoids from microalgal biomass IA repeated dose study. <b>2013</b> , 54, 711-717	67
322	Supplementation of patients with sickle cell disease with astaxanthin increases plasma- and erythrocyte-astaxanthin and may improve the hemolytic component of the disease. <b>2013</b> ,	
321	Tissue damage in organic rainbow trout muscle investigated by proteomics and bioinformatics.	
<i>J</i> .	<b>2013</b> , 13, 2180-90	
320	Synthetic astaxanthin is significantly inferior to algal-based astaxanthin as an antioxidant and may not be suitable as a human nutraceutical supplement. <b>2013</b> , 12, 145-152	114
	Synthetic astaxanthin is significantly inferior to algal-based astaxanthin as an antioxidant and may	114
320	Synthetic astaxanthin is significantly inferior to algal-based astaxanthin as an antioxidant and may not be suitable as a human nutraceutical supplement. <b>2013</b> , 12, 145-152  Astaxanthin and canthaxanthin (xanthophyll) as supplements in rainbow trout diet: in vivo	
319	Synthetic astaxanthin is significantly inferior to algal-based astaxanthin as an antioxidant and may not be suitable as a human nutraceutical supplement. <b>2013</b> , 12, 145-152  Astaxanthin and canthaxanthin (xanthophyll) as supplements in rainbow trout diet: in vivo assessment of residual levels and contributions to human health. <b>2013</b> , 61, 10954-9	22
320 319 318	Synthetic astaxanthin is significantly inferior to algal-based astaxanthin as an antioxidant and may not be suitable as a human nutraceutical supplement. 2013, 12, 145-152  Astaxanthin and canthaxanthin (xanthophyll) as supplements in rainbow trout diet: in vivo assessment of residual levels and contributions to human health. 2013, 61, 10954-9  Insights on the safety of carotenogenic Chlorella vulgaris in rodents. 2013, 2, 409-415  Carotenoid and lipid production by the autotrophic microalga Chlorella protothecoides under	22
320 319 318 317	Synthetic astaxanthin is significantly inferior to algal-based astaxanthin as an antioxidant and may not be suitable as a human nutraceutical supplement. 2013, 12, 145-152  Astaxanthin and canthaxanthin (xanthophyll) as supplements in rainbow trout diet: in vivo assessment of residual levels and contributions to human health. 2013, 61, 10954-9  Insights on the safety of carotenogenic Chlorella vulgaris in rodents. 2013, 2, 409-415  Carotenoid and lipid production by the autotrophic microalga Chlorella protothecoides under nutritional, salinity, and luminosity stress conditions. 2013, 97, 1383-93  Lifestyle and nutritional imbalances associated with Western diseases: causes and consequences of	11 104
320 319 318 317 316	Synthetic astaxanthin is significantly inferior to algal-based astaxanthin as an antioxidant and may not be suitable as a human nutraceutical supplement. 2013, 12, 145-152  Astaxanthin and canthaxanthin (xanthophyll) as supplements in rainbow trout diet: in vivo assessment of residual levels and contributions to human health. 2013, 61, 10954-9  Insights on the safety of carotenogenic Chlorella vulgaris in rodents. 2013, 2, 409-415  Carotenoid and lipid production by the autotrophic microalga Chlorella protothecoides under nutritional, salinity, and luminosity stress conditions. 2013, 97, 1383-93  Lifestyle and nutritional imbalances associated with Western diseases: causes and consequences of chronic systemic low-grade inflammation in an evolutionary context. 2013, 24, 1183-201  Astaxanthin inhibits NF-B and Wnt/Etatenin signaling pathways via inactivation of Erk/MAPK and	11 104 130

312	Microbial production of carotenoids. <b>2013</b> , 194-233	10
311	Astaxanthin suppresses MPP(+)-induced oxidative damage in PC12 cells through a Sp1/NR1 signaling pathway. <b>2013</b> , 11, 1019-34	37
310	Cognitive effects of a dietary supplement made from extract of Bacopa monnieri, astaxanthin, phosphatidylserine, and vitamin E in subjects with mild cognitive impairment: a noncomparative, exploratory clinical study. <b>2014</b> , 10, 225-30	25
309	Neuroprotective properties of the marine carotenoid astaxanthin and omega-3 fatty acids, and perspectives for the natural combination of both in krill oil. <b>2014</b> , 6, 1293-317	78
308	Inhibitory effects of astaxanthin on azoxymethane-induced colonic preneoplastic lesions in C57/BL/KsJ-db/db mice. <b>2014</b> , 14, 212	17
307	Astaxanthin and Related Xanthophylls. <b>2014</b> , 187-208	5
306	Astaxanthin: sources, extraction, stability, biological activities and its commercial applicationsa review. <b>2014</b> , 12, 128-52	966
305	Biologically active polymers from spontaneous carotenoid oxidation: a new frontier in carotenoid activity. <b>2014</b> , 9, e111346	13
304	Omega-3 fatty acids: physiology, biological sources and potential applications in supportive cancer care. <b>2014</b> , 13, 223-244	22
303	Antihepatotoxic effect of tadehaginoside, extracted from Tadehagi triquetrum (L.), against CCl4-lesioned rats through activating the Nrf2 signaling pathway and attenuating the inflammatory response. <b>2014</b> , 37, 1006-14	12
302	Seaweed and human health. <b>2014</b> , 72, 205-16	204
301	Potential anti-inflammatory effect of lemon and hot pepper extracts on adjuvant-induced arthritis in mice. <b>2014</b> , 67, 149-157	26
300	. <b>2015</b> , 1-22	
299	From Tiny Microalgae to Huge Biorefineries. <b>2015</b> , 55-76	2
298	Carotenoids: potential allies of cardiovascular health?. <b>2015</b> , 59, 26762	154
297	Fermentation of hot pepper juice by Bacillus licheniformis to reduce pungency. <b>2015</b> , 58, 611-616	O
296	Mussel processing wastewater: a low-cost substrate for the production of astaxanthin by Xanthophyllomyces dendrorhous. <b>2015</b> , 14, 177	23
295	Anti-inflammatory effects of astaxanthin in the human gingival keratinocyte line NDUSD-1. <b>2015</b> , 56, 171-8	24

### (2016-2015)

294	Effect of Astaxanthin Supplementation on Salivary IgA, Oxidative Stress, and Inflammation in Young Soccer Players. <b>2015</b> , 2015, 783761	34
293	Bioactive Compounds Isolated from Microalgae in Chronic Inflammation and Cancer. <b>2015</b> , 13, 6152-209	133
292	Astaxanthin as a Potential Neuroprotective Agent for Neurological Diseases. <b>2015</b> , 13, 5750-66	106
291	Carotenoids from Marine Microalgae: A Valuable Natural Source for the Prevention of Chronic Diseases. <b>2015</b> , 13, 5128-55	117
290	In Vivo Effects of Free Form Astaxanthin Powder on Anti-Oxidation and Lipid Metabolism with High-Cholesterol Diet. <b>2015</b> , 10, e0134733	12
289	Astaxanthin - ein neuer Wirkstoff f die Medizin?. <b>2015</b> , 27, 77-78	
288	Genetic Engineering of Microalgae for Production of Value-added Ingredients. <b>2015</b> , 405-414	2
287	Identification and functional characterization of the CYP51 gene from the yeast Xanthophyllomyces dendrorhous that is involved in ergosterol biosynthesis. <b>2015</b> , 15, 89	18
286	Limiting immunopathology: Interaction between carotenoids and enzymatic antioxidant defences. <b>2015</b> , 49, 278-81	29
285	Astaxanthin encapsulated in beads using ultrasonic atomizer and application in yogurt as evaluated by consumer sensory profile. <b>2015</b> , 62, 431-437	52
284	Genomic instability in human cancer: Molecular insights and opportunities for therapeutic attack and prevention through diet and nutrition. <b>2015</b> , 35 Suppl, S5-S24	175
283	Evaluation of hepatoprotective and antioxidant activity of astaxanthin and astaxanthin esters from microalga-Haematococcus pluvialis. <b>2015</b> , 52, 6703-10	35
282	Oral Astaxanthin Supplementation Prevents Peritoneal Fibrosis in Rats. <b>2015</b> , 35, 506-16	10
281	The production of pigments & hydrogen through a Spirogyra sp. biorefinery. <b>2015</b> , 89, 789-797	44
<b>2</b> 80	Potential Anti-Atherosclerotic Properties of Astaxanthin. <b>2016</b> , 14,	99
279	Bioactive Dietary Compounds Regulate Mitochondrial Apoptosis Signaling in Ambivalent Way to Function as Neuroprotective or Antitumor Agents. <b>2016</b> , 51, 201-222	1
278	Astaxanthin, a Carotenoid, Stimulates Immune Responses by Enhancing IFN-land IL-2 Secretion in Primary Cultured Lymphocytes in Vitro and ex Vivo. <b>2015</b> , 17,	46
277	Astaxanthin-Producing Green Microalga Haematococcus pluvialis: From Single Cell to High Value Commercial Products. <b>2016</b> , 7, 531	403

276	Effects of a nutraceutical combination on lipids, inflammation and endothelial integrity in patients with subclinical inflammation: a randomized clinical trial. <b>2016</b> , 6, 23587		25
275	FlexPro MD, a Mixture of Krill Oil, Astaxanthin, and Hyaluronic Acid, Suppresses Lipopolysaccharide-Induced Inflammatory Cytokine Production Through Inhibition of NF- <b>B. 2016</b> , 19, 1196-1203		6
274	Combined effect of astaxanthin and squalene on oxidative stress in vivo. 2016, 417, 57-65		19
273	Preventive effects of astaxanthin on diethylnitrosamine-induced liver tumorigenesis in C57/BL/KsJ-db/db obese mice. <b>2016</b> , 46, E201-9		14
272	Astaxanthin down-regulates Rad51 expression via inactivation of AKT kinase to enhance mitomycin C-induced cytotoxicity in human non-small cell lung cancer cells. <b>2016</b> , 105, 91-100		33
271	Clinical evaluation of a nutraceutical diet as an adjuvant to pharmacological treatment in dogs affected by Keratoconjunctivitis sicca. <b>2016</b> , 12, 214		9
270	Potential anti-inflammatory natural products from marine algae. <b>2016</b> , 48, 22-30		122
269	Astaxanthin biosynthetic pathway: Molecular phylogenies and evolutionary behaviour of Crt genes in eubacteria. <b>2016</b> , 8, 32-41		4
268	Carotenoid Distribution in Nature. <b>2016</b> , 79, 3-33		26
267	High pressure processing extend the shelf life of fresh salmon, cod and mackerel. <b>2016</b> , 70, 242-248		44
266	테,3/1,6-Glucan-supplemented diets antagonize immune inhibitory effects of hypoxia and enhance the immune response to a model vaccine. <b>2016</b> , 59, 36-45		24
265	Carotenoids from microalgae: A review of recent developments. <b>2016</b> , 34, 1396-1412		338
264	Effects of a new nutraceutical substance on clinical and molecular parameters in patients with chronic venous ulceration. <b>2016</b> , 13, 88-96		40
263	Influence of high-pressure homogenization, ultrasonication, and supercritical fluid on free astaxanthin extraction from Iglucanase-treated Phaffia rhodozyma cells. <b>2016</b> , 46, 116-22		14
262	Immunomodulatory and antioxidative activity of Cordyceps militaris polysaccharides in mice. <b>2016</b> , 86, 594-8		57
261	Astaxanthin has no effect on arterial stiffness, oxidative stress, or inflammation in renal transplant recipients: a randomized controlled trial (the XANTHIN trial). <b>2016</b> , 103, 283-9		30
260	Marine carotenoids: Bioactivities and potential benefits to human health. <i>Critical Reviews in Food Science and Nutrition</i> , <b>2017</b> , 57, 2600-2610	11.5	79
259	Protective Effect of Astaxanthin on Vocal Fold Injury and Inflammation Due to Vocal Loading: A Clinical Trial. <b>2017</b> , 31, 352-358		12

### (2017-2017)

258	Astaxanthin protects against early burn-wound progression in rats by attenuating oxidative stress-induced inflammation and mitochondria-related apoptosis. <b>2017</b> , 7, 41440	51
257	Cancer-immune therapy: restoration of immune response in cancer by immune cell modulation. <b>2017</b> , 60, 93-109	1
256	Neuroprotective effects of astaxanthin in a rat model of spinal cord injury. 2017, 329, 104-110	31
255	Effects of astaxanthin in mice acutely infected with Trypanosoma cruzi. <b>2017</b> , 24, 17	2
254	Astaxanthin in cardiovascular health and disease: mechanisms of action, therapeutic merits, and knowledge gaps. <b>2017</b> , 8, 39-63	99
253	A dietary carotenoid reduces immunopathology and enhances longevity through an immune depressive effect in an insect model. <b>2017</b> , 7, 12429	29
252	Oral administration of lyophilized Dunaliella salina, a carotenoid-rich marine alga, reduces tumor progression in mammary cancer induced rats. <b>2017</b> , 8, 4517-4527	22
251	Protective Effects of Carotenoids in Cardiovascular Disease and Diabetes. <b>2017</b> , 347-385	4
250	Health relevance of the modification of low grade inflammation in ageing (inflammageing) and the role of nutrition. <b>2017</b> , 40, 95-119	221
249	Effect of astaxanthin and aluminum chloride on erythrocyte G6PD and 6PGD enzyme activities in vivo and on erythrocyte G6PD in vitro in rats. <b>2017</b> , 31, e21954	7
248	Lobster processing by-products as valuable bioresource of marine functional ingredients, nutraceuticals, and pharmaceuticals. <b>2017</b> , 4, 27	46
247	The effect of maternal canthaxanthin supplementation and hen age on breeder performance, early chick traits, and indices of innate immune function. <b>2017</b> , 96, 634-646	12
246	Protective effects of a novel nutritional and phytonutrient blend on ultraviolet radiation-induced skin damage and inflammatory response through aging defense mechanisms. <b>2017</b> , 16, 491-499	7
245	Carotenoids: biochemistry, pharmacology and treatment. <b>2017</b> , 174, 1290-1324	286
244	Biosynthesis of Astaxanthin as a Main Carotenoid in the Heterobasidiomycetous Yeast Xanthophyllomyces dendrorhous. <b>2017</b> , 3,	66
243	Carotenoids in Aquatic Ecosystems and Aquaculture: A Colorful Business with Implications for Human Health. <b>2017</b> , 4,	56
242	Astaxanthin increases progesterone production in cultured bovine luteal cells. 2017, 79, 1103-1109	5
241	Effect of 3, hydroxy-lup- 20(29)-en-28-oic acid on 7,12-Dimethylbenz(a) anthracene impaired cellular homeostasis in extrahepatic organs of Sprague Dawley rats. <b>2017</b> , 7, 6475	O

240	Preparation of astaxanthin-loaded liposomes: characterization, storage stability and antioxidant activity. <b>2018</b> , 16, 607-618	39
239	An updated review on use of tomato pomace and crustacean processing waste to recover commercially vital carotenoids. <b>2018</b> , 108, 516-529	47
238	Astaxanthin ameliorates cerulein-induced acute pancreatitis in mice. 2018, 56, 18-28	23
237	Xanthophyllomyces dendrorhous physiological stages determination using combined measurements from dielectric and Raman spectroscopies, a cell counter system and fluorescence flow cytometry. <b>2018</b> , 136, 1-8	6
236	Carotenoid supplementation and retinoic acid in immunoglobulin A regulation of the gut microbiota dysbiosis. <b>2018</b> , 243, 613-620	45
235	Structural and functional analysis of the carotenoid biosynthesis genes of a Pseudomonas strain isolated from the excrement of Autumn Darter. <b>2018</b> , 82, 1043-1052	7
234	Comparison Between High-Pressure Processing and Chemical Extraction: Astaxanthin Yield From Six Species of Shrimp Carapace. <b>2018</b> , 15, 805-813	16
233	Biosynthesis of Carotenoids and Apocarotenoids by Microorganisms and Their Industrial Potential. <b>2018</b> ,	14
232	Nanoliposomes as Vehicles for Astaxanthin: Characterization, In Vitro Release Evaluation and Structure. <b>2018</b> , 23,	32
231	Effects of Astaxanthin on the Proliferation and Migration of Breast Cancer Cells In Vitro. 2018, 7,	35
230	Building strength, endurance, and mobility using an astaxanthin formulation with functional training in elderly. <b>2018</b> , 9, 826-833	18
229	Lactation and resource limitation affect stress responses, thyroid hormones, immune function, and antioxidant capacity of sea otters (). <b>2018</b> , 8, 8433-8447	9
228	Bioaccessibility of Marine Carotenoids. <b>2018</b> , 16,	31
227	Enhancing Skin Health: By Oral Administration of Natural Compounds and Minerals with Implications to the Dermal Microbiome. <b>2018</b> , 19,	48
226	Impact of a (poly)phenol-rich extract from the brown algae Ascophyllum nodosum on DNA damage and antioxidant activity in an overweight or obese population: a randomized controlled trial. <b>2018</b> , 108, 688-700	36
225	A Review of the Biological Activities of Microalgal Carotenoids and Their Potential Use in Healthcare and Cosmetic Industries. <b>2018</b> , 16,	228
224	Effects of Dietary Supplementation of Astaxanthin and Sesamin on Daily Fatigue: A Randomized, Double-Blind, Placebo-Controlled, Two-Way Crossover Study. <b>2018</b> , 10,	21
223	Detection and Enhancement of Ketocarotenoid Accumulation in the Newly Isolated Sarcinoid Green Microalga Chlorosarcinopsis PY02. <b>2018</b> , 7,	5

222	Astaxanthin in Skin Health, Repair, and Disease: A Comprehensive Review. <b>2018</b> , 10,	177
221	Preparative Recovery of Carotenoids from Microalgal Biomass. <b>2018</b> , 1852, 107-115	4
220	Astaxanthin: A mechanistic review on its biological activities and health benefits. 2018, 136, 1-20	169
219	Carotenoids: From Plants to Food and Feed Industries. <b>2018</b> , 1852, 57-71	44
218	Carotenoids Production: A Healthy and Profitable Industry. 2018, 1852, 45-55	15
217	Extraction and Analysis of Carotenes and Xanthophylls Produced by Xanthophyllomyces dendrorhous. <b>2018</b> , 1852, 283-295	
216	Dietary natural astaxanthin at an early stage inhibits -nitrosomethylbenzylamine-induced esophageal cancer oxidative stress and inflammation via downregulation of NF <b>B</b> and COX2 in F344 rats. <b>2019</b> , 12, 5087-5096	18
215	Ethanol induced jasmonate pathway promotes astaxanthin hyperaccumulation in Haematococcus pluvialis. <b>2019</b> , 289, 121720	24
214	Astaxanthin from Shrimp Cephalothorax Stimulates the Immune Response by Enhancing IFN- IL-10, and IL-2 Secretion in Splenocytes of -Infected Mice. <b>2019</b> , 17,	17
213	Functional and Nutraceutical Ingredients From Marine Resources. 2019, 101-171	
212	Storage of Carotenoids in Crustaceans as an Adaptation to Modulate Immunopathology and Optimize Immunological and Life-History Strategies. <b>2019</b> , 41, e1800254	6
211	Astaxanthin Ameliorates the Lipopolysaccharides-Induced Subfertility in Mouse via Nrf2/HO-1 Antioxidant Pathway. <b>2019</b> , 17, 1559325819878537	4
210	Antioxidant properties of astaxanthin produced by cofermentation between Spirulina platensis and recombinant Saccharomyces cerevisiae against mouse macrophage RAW 264.7 damaged by H2O2. <b>2019</b> , 118, 318-325	5
209	De novo synthesis of astaxanthin: From organisms to genes. <b>2019</b> , 92, 162-171	34
208	Synergistic effect of nano-selenium and metformin on type 2 diabetic rat model: Diabetic complications alleviation through insulin sensitivity, oxidative mediators and inflammatory markers. <b>2019</b> , 14, e0220779	24
207	Biomarkers of seaweed intake. <b>2019</b> , 14, 24	7
206	Interventions targeted at oxidatively generated modifications of nucleic acids focused on urine and plasma markers. <b>2019</b> , 145, 256-283	10
205	DNA methylome and transcriptome alterations and cancer prevention by triterpenoid ursolic acid in UVB-induced skin tumor in mice. <b>2019</b> , 58, 1738-1753	14

204	Microalgae for High-Value Products Towards Human Health and Nutrition. <b>2019</b> , 17,	185
203	Phaffia rhodozyma cultivation on structural and non-structural sugars from sweet sorghum for astaxanthin generation. <b>2019</b> , 83, 9-17	18
202	Influence of different lipid sources on growth performance, oxidation resistance and fatty acid profiles of juvenile swimming crab, Portunus trituberculatus. <b>2019</b> , 508, 147-158	22
201	Astaxanthin ameliorates renal interstitial fibrosis and peritubular capillary rarefaction in unilateral ureteral obstruction. <b>2019</b> , 19, 3168-3178	9
200	Immune Defenses of a Beneficial Pest: The Mealworm Beetle,. <b>2019</b> , 10, 138	39
199	Current bioeconomical interest in stramenopilic Eustigmatophyceae: a review. <b>2019</b> , 33, 302-314	7
198	Astaxanthin: How much is too much? A safety review. <b>2019</b> , 33, 3090-3111	42
197	The Role of the Reactive Oxygen Species Scavenger Agent, Astaxanthin, in the Protection of Cisplatin-Treated Patients Against Hearing Loss. <b>2019</b> , 13, 4291-4303	5
196	Astaxanthin: A Potential Mitochondrial-Targeted Antioxidant Treatment in Diseases and with Aging. <b>2019</b> , 2019, 3849692	46
195	Biomarkers of meat and seafood intake: an extensive literature review. <b>2019</b> , 14, 35	27
194	Marine Waste Utilization as a Source of Functional and Health Compounds. <b>2019</b> , 87, 187-254	33
193	Genetic transformation of the astaxanthin biosynthetic genes bkt and crtR-B into apple tree to increase photooxidation resistance. <b>2019</b> , 243, 428-433	8
192	Astaxanthin attenuated thrombotic risk factors in type 2 diabetic patients. <b>2019</b> , 53, 22-27	20
191	Microbial platforms to produce commercially vital carotenoids at industrial scale: an updated review of critical issues. <b>2019</b> , 46, 657-674	52
190	Inhibition of NF- <b>B</b> signaling pathway by astaxanthin supplementation for prevention of heat stress-induced inflammatory changes and apoptosis in Karan Fries heifers. <b>2019</b> , 51, 1125-1134	7
189	Food for Eye Health: Carotenoids and Omega-3 Fatty Acids. <b>2019</b> , 313-322	3
188	Enhancing the stability of astaxanthin by encapsulation in poly (l-lactic acid) microspheres using a supercritical anti-solvent process. <b>2019</b> , 44, 54-62	18
187	Astaxanthin, Lutein, and Zeaxanthin. <b>2019</b> , 19-25	2

186	Microalgae metabolites: A rich source for food and medicine. <b>2019</b> , 26, 709-722	292
185	Protective effects of astaxanthin on skin: Recent scientific evidence, possible mechanisms, and potential indications. <b>2020</b> , 19, 22-27	26
184	Biotechnological production of high-valued algal astaxanthin and lutein under different growth conditions. <b>2020</b> , 191-220	1
183	Marine Bacteria versus Microalgae: Who Is the Best for Biotechnological Production of Bioactive Compounds with Antioxidant Properties and Other Biological Applications?. <b>2019</b> , 18,	29
182	Two-phase method of cultivating Coelastrella species for increased production of lipids and carotenoids. <b>2020</b> , 9, 100366	3
181	Mechanical stress induced astaxanthin accumulation of H. pluvialis on a chip. <b>2020</b> , 20, 647-654	9
180	A fruit diet rather than invertebrate diet maintains a robust innate immunity in an omnivorous tropical songbird. <b>2020</b> , 89, 867-883	11
179	Xanthophyll: Health benefits and therapeutic insights. <b>2020</b> , 240, 117104	20
178	Microalgae with Immunomodulatory Activities. <b>2019</b> , 18,	44
177	Potential of natural astaxanthin in alleviating the risk of cytokine storm in COVID-19. <b>2020</b> , 132, 110886	27
176	Biotechnology applied to Haematococcus pluvialis Fotow: challenges and prospects for the enhancement of astaxanthin accumulation. <i>Journal of Applied Phycology</i> , <b>2020</b> , 32, 3831-3852	6
175	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. <b>2020</b> , 11, 9252-9262	29
174	Inhibitory effects of astaxanthin on postovulatory porcine oocyte aging in vitro. 2020, 10, 20217	10
173	Postulated Adjuvant Therapeutic Strategies for COVID-19. <b>2020</b> , 10,	15
172	Anti-Apoptotic Effects of Carotenoids in Neurodegeneration. <b>2020</b> , 25,	29
171	The effects of astaxanthin supplementation on obesity, blood pressure, CRP, glycemic biomarkers, and lipid profile: A meta-analysis of randomized controlled trials. <b>2020</b> , 161, 105113	17
170	Beta-Carotene and Other Carotenoids. <b>2020</b> , 443-450.e2	1
169	Structures of Astaxanthin and Their Consequences for Therapeutic Application. <b>2020</b> , 2020, 2156582	21

168	Astaxanthin attenuates joint inflammation induced by monosodium urate crystals. 2020, 34, 11215-11226	7
167	Subacute administration of Astaxanthin inhibits vitamin K-dependent clotting factors in rats. <b>2020</b> , 44, e13407	
166	Microalgal biorefineries. <b>2020</b> , 771-798	2
165	Sources, stability, encapsulation and application of natural pigments in foods. <b>2020</b> , 1-56	16
164	Algal Carotenoids. <b>2020</b> , 33-64	4
163	Astaxanthin and Fucoxanthin. <b>2020</b> , 1391-1426	1
162	Novel Insights into the Biotechnological Production of Haematococcus pluvialis-Derived Astaxanthin: Advances and Key Challenges to Allow Its Industrial Use as Novel Food Ingredient. <b>2020</b> , 8, 789	28
161	On a Beam of Light: Photoprotective Activities of the Marine Carotenoids Astaxanthin and Fucoxanthin in Suppression of Inflammation and Cancer. <b>2020</b> , 18,	6
160	Clinical Applications of Astaxanthin in the Treatment of Ocular Diseases: Emerging Insights. <b>2020</b> , 18,	26
159	Antiplatelet activity of astaxanthin in control- and high cholesterol-fed rats mediated by down-regulation of P2Y, inhibition of NF- <b>B</b> , and increasing intracellular levels of cAMP. <b>2021</b> , 32, 469-478	2
158	Transcriptome analysis reveals the potential mechanism of dietary carotenoids improving antioxidative capability and immunity of juvenile Chinese mitten crabs Eriocheir sinensis. <b>2020</b> , 104, 359-373	6
157	Exposure to Oxadiazon-Butachlor causes cardiac toxicity in zebrafish embryos. <b>2020</b> , 265, 114775	17
156	Pro-Oxidant Actions of Carotenoids in Triggering Apoptosis of Cancer Cells: A Review of Emerging Evidence. <b>2020</b> , 9,	45
155	Effects of 3-Month Astaxanthin Supplementation on Cardiac Function in Heart Failure Patients with Left Ventricular Systolic Dysfunction-A Pilot Study. <b>2020</b> , 12,	9
154	The effect of astaxanthin supplementation on the post-thaw quality of dog semen. 2020, 55, 1163-1171	3
153	Astaxanthin attenuates oxidative stress and inflammatory responses in complete Freund-adjuvant-induced arthritis in rats. <b>2020</b> , 72, 104-114	24
152	Astaxanthin supplementation impacts the cellular HSP expression profile during passive heating. <b>2020</b> , 25, 549-558	6
151	Novel antioxidant astaxanthin-s-allyl cysteine biconjugate diminished oxidative stress and mitochondrial dysfunction to triumph diabetes in rat model. <b>2020</b> , 245, 117367	8

# (2021-2020)

150	Extract Suppresses IFN-Gamma- and TNF-Alpha-Induced Proinflammatory Chemokine Production in HaCaT Cells via the Down-Regulation of NF-B. <b>2020</b> , 12,	5
149	Astaxanthin alleviates gestational diabetes mellitus in mice through suppression of oxidative stress. <b>2020</b> , 393, 2517-2527	13
148	Astaxanthin attenuates d-galactose-induced brain aging in rats by ameliorating oxidative stress, mitochondrial dysfunction, and regulating metabolic markers. <b>2020</b> , 11, 4103-4113	21
147	Origin of the natural variation in the storage of dietary carotenoids in freshwater amphipod crustaceans. <b>2020</b> , 15, e0231247	1
146	Therapeutic Effect of Seaweed Derived Xanthophyl Carotenoid on Obesity Management; Overview of the Last Decade. <b>2020</b> , 21,	7
145	Effects of Astaxanthin Supplementation on Skin Health: A Systematic Review of Clinical Studies. <b>2021</b> , 18, 169-182	15
144	The Promising Effects of Astaxanthin on Lung Diseases. <b>2021</b> , 12, 850-864	5
143	Bioextraction of astaxanthin adopting varied techniques and downstream processing methodologies. <b>2021</b> , 313-339	
142	Antiinflammatory natural products from marine algae. <b>2021</b> , 175-203	1
141	Production of nutraceutical astaxanthin from waste resources. <b>2021</b> , 181-205	O
140	Anticancer properties of astaxanthin: A molecule of great promise. <b>2021</b> , 427-445	1
139	Crustacea (Carotenoids Namely Astaxanthins) Against Cancer. <b>2021</b> , 145-178	
138	Reprogramming microorganisms for the biosynthesis of astaxanthin via metabolic engineering. <b>2021</b> , 81, 101083	15
137	Carotenoids in diabetes, retinopathy, and cardiovascular risk. <b>2021</b> , 123-152	
136	Comprehensive integrated overview of the experimental and clinical neuroprotective effect of astaxanthin. <b>2021</b> , 469-494	
135	Safety assessment and pharmaceutical effects of astaxanthin: An overview. 2021, 569-591	
134	Antioxidants and Therapeutic Targets in Ovarian Clear Cell Carcinoma. 2021, 10,	7
133	Epigenetic immunomodulatory effect of eugenol and astaxanthin on doxorubicin cytotoxicity in hormonal positive breast Cancer cells. <b>2021</b> , 22, 8	6

132	Development of astaxanthin-loaded layer-by-layer emulsions: physicochemical properties and improvement of LPS-induced neuroinflammation in mice. <b>2021</b> , 12, 5333-5350	2
131	Astaxanthin for improved muscle function and enhanced physical performance. <b>2021</b> , 447-467	О
130	Variations of Structural and Functional Traits of Azolla pinnata R. Br. in Response to Crude Oil Pollution in Arid Regions. <b>2021</b> , 13, 2142	2
129	Effects of high fructose diet on lipid metabolism and the hepatic NF-B/ SIRT-1 pathway. 2021, 1-9	2
128	Marine Natural Products: Promising Candidates in the Modulation of Gut-Brain Axis towards Neuroprotection. <b>2021</b> , 19,	3
127	Xanthophylls from the Sea: Algae as Source of Bioactive Carotenoids. <b>2021</b> , 19,	32
126	Elektrik alan∄ DNA HasarÐe Beyin Dokusu Øerine Etkileri - Astaksantin¶n Rol□	
125	Heme oxygenase-1 induction mitigates burn-associated early acute kidney injury via the TLR4 signaling pathway. <b>2021</b> , 48, 156-156	O
124	Seafood Intake as a Method of Non-Communicable Diseases (NCD) Prevention in Adults. 2021, 13,	6
123	"Therapeutic uses of natural astaxanthin: An evidence-based review focused on human clinical trials". <b>2021</b> , 166, 105479	33
122	Microalgal Cell Biofactory-Therapeutic, Nutraceutical and Functional Food Applications. 2021, 10,	21
121	Algal Carotenoids: Recovery and their Potential in Disease Prevention. <b>2021</b> , 335-369	
120	An accurate, rapid, and sensitive method for simultaneous determination of four typical heterocyclic amines in roasted pork patties: Application in the study of inhibitory effects of astaxanthin. <b>2021</b> , 44, 1833-1842	1
119	Unlocking the Health Potential of Microalgae as Sustainable Sources of Bioactive Compounds. <b>2021</b> , 22,	17
118	Can nutraceuticals assist treatment and improve covid-19 symptoms?. <b>2021</b> , 1-20	15
117	Anti-oxidation properties and therapeutic potentials of spirulina. <b>2021</b> , 55, 102240	6
116	Astaxanthin for the Food Industry. <b>2021</b> , 26,	23
115	The Role of Astaxanthin on Chronic Diseases. <b>2021</b> , 11, 505	3

### (2021-2021)

114	Carotenoids supplementation and inflammation: a systematic review and meta-analysis of randomized clinical trials. <i>Critical Reviews in Food Science and Nutrition</i> , <b>2021</b> , 1-17	11.5	9
113	Characterization of Astaxanthin Nanoemulsions Produced by Intense Fluid Shear through a Self-Throttling Nanometer Range Annular Orifice Valve-Based High-Pressure Homogenizer. <b>2021</b> , 26,		3
112	Algal Biomass. <b>2021</b> , 303-334		
111	Evaluation of Microalgae Antiviral Activity and Their Bioactive Compounds. 2021, 10,		6
110	Development of Broad-Spectrum Antiviral Agents-Inspiration from Immunomodulatory Natural Products. <b>2021</b> , 13,		0
109	Vital roles of carotenoids in plants and humans to deteriorate stress with its structure, biosynthesis, metabolic engineering and functional aspects. <b>2021</b> , 26, 100203		13
108	Rationale for a New Outpatient Drug Therapy Algorithm in COVID-19 Patients Based on the Principle of   Multi-hit  Approach. <b>2021</b> , 66, 49-61		О
107	Mitochondrion as a Target of Astaxanthin Therapy in Heart Failure. <b>2021</b> , 22,		3
106	Astaxanthin Ameliorates high-fat diet-induced cardiac damage and fibrosis by upregulating and activating SIRT1. <b>2021</b> , 28, 7012-7021		1
105	Systematic Review and Meta-Analysis on the Effects of Astaxanthin on Human Skin Ageing. <b>2021</b> , 13,		5
104	Effects of Rhodotorula mucilaginosa on the Immune Function and Gut Microbiota of Mice. <b>2021</b> , 2,		О
103	Astaxanthin protective barrier and its ability to improve the health in patients with COVID-19. <b>2021</b> , 13, 434-441		1
102	Impact of eugenol on model of 6-hydroxydopamine-induced oxidative stress. 2021, 1-13		1
101	Astaxanthin Mitigates Thiacloprid-Induced Liver Injury and Immunotoxicity in Male Rats. <b>2021</b> , 19,		4
100	Anti-Inflammatory and Anticancer Effects of Microalgal Carotenoids. 2021, 19,		6
99	Carotenoids: Therapeutic Strategy in the Battle against Viral Emerging Diseases, COVID-19: An Overview. <b>2021</b> , 26, 241-261		5
98	Microalgae Derived Astaxanthin: Research and Consumer Trends and Industrial Use as Food. <b>2021</b> , 10,		9
97	Microalgae-made vaccines against infectious diseases. <b>2021</b> , 58, 102408		1

96	Lenvatinib exposure induces hepatotoxicity in zebrafish via inhibiting Wnt signaling. <b>2021</b> , 462, 152951	O
95	Mitochondria as a target for safety and toxicity evaluation of nutraceuticals. 2021, 463-483	
94	Microalgae as a source of pigments for food applications. <b>2021</b> , 177-198	O
93	The antiviral potential of algal-derived macromolecules. <b>2021</b> , 3, 120-134	7
92	Carotenoids and Cardiovascular Diseases. <b>2021</b> , 649-696	
91	Carotenoids as Functional Bioactive Compounds. <b>2020</b> , 415-444	3
90	Food and Feed Applications of Algae. <b>2016</b> , 217-247	9
89	Astaxanthin Production from Microalgae. <b>2020</b> , 175-242	5
88	Effects of Astaxanthin Supplementation on Oxidative Stress. <b>2020</b> , 90, 179-194	15
87	Diallyl Disulfide Mitigates DNA Damage and Spleen Tissue Effects After Irradiation. <b>2019</b> , 25, 8920-8927	2
86	Astaxanthin as a Potential Protector of Liver Function: A Review. <b>2016</b> , 8, 701-4	31
85	COVID-19: Potential of Microalgae Derived Natural Astaxanthin As Adjunctive Supplement in Alleviating Cytokine Storm.	15
84	Favorable Effects of Astaxanthin on Brain Damage due to Ischemia- Reperfusion Injury. <b>2020</b> , 23, 214-224	4
83	Effects of astaxanthin on the protection of muscle health (Review). <b>2020</b> , 20, 2941-2952	2
82	Potential ability of xanthophylls to prevent obesity-associated cancer. <b>2014</b> , 3, 140	11
81	Possible effect of Astaxanthin on obesity related increased COVID-19 infection morbidity and mortality. <b>2021</b> , 17,	
80	Supercritical fluid extraction (SCFE) as green extraction technology for high-value metabolites of algae, its potential trends in food and human health. <b>2021</b> , 150, 110746	10
79	Lipids and Health. <b>2014</b> , 161-302	

78	The Bioeconomy of Production of Microalgal Pigments. <b>2020</b> , 325-362	1
77	Astaxanthin intake alleviates gouty arthritis in patients and rats by modulating the levels of various inflammatory markers. <b>2021</b> , 87, 104823	О
76	Anti-inflammatory action of astaxanthin and its use in the treatment of various diseases. <b>2021</b> , 145, 112179	7
75	Astaxanthin improves cognitive deficits from oxidative stress, nitric oxide synthase and inflammation through upregulation of PI3K/Akt in diabetes rat. <b>2015</b> , 8, 6083-94	40
74	A Study on the Bioavailability of a Proprietary, Sustained-release Formulation of Astaxanthin. <b>2018</b> , 17, 38-42	1
73	A Pragmatic Approach to Immunity & Respiratory Viral Infections. <b>2020</b> , 19, 8-15	
72	[Effect of astaxanthin on the apoptosis after spinal cord injury in rats]. 2018, 32, 548-553	
71	Gastrointestinal digestive fate of whey protein isolate coated liposomes loading astaxanthin: Lipolysis, release, and bioaccessibility. <b>2022</b> , 45, 101464	2
70	Enhancement of astaxanthin production in Schizochytrium limacinum B4D1 under ethanol induction. <b>2021</b> , 102537	2
69	Miodesin Positively Modulates the Immune Response in Endometrial and Vaginal Cells <b>2022</b> , 27,	O
68	Astaxanthin as a Modulator of Nrf2, NF- <b>B</b> , and Their Crosstalk: Molecular Mechanisms and Possible Clinical Applications <b>2022</b> , 27,	2
67	Nanotechnology-Abetted Astaxanthin Formulations in Multimodel Therapeutic and Biomedical Applications <b>2021</b> ,	6
66	Role of nutraceuticals on neurodegenerative diseases: neuroprotective and immunomodulant activity <b>2021</b> , 1-18	15
65	The Algal Polysaccharide Ulvan and Carotenoid Astaxanthin Both Positively Modulate Gut Microbiota in Mice <b>2022</b> , 11,	O
64	Astaxanthin Sensitizes Low SOD2-Expressing GBM Cell Lines to TRAIL Treatment via Pathway Involving Mitochondrial Membrane Depolarization <b>2022</b> , 11,	1
63	Astaxanthin Relieves Testicular Ischemia-Reperfusion Injury-Immunohistochemical and Biochemical Analyses <b>2022</b> , 11,	O
62	Randomized controlled trial of astaxanthin impacts on antioxidant status and assisted reproductive technology outcomes in women with polycystic ovarian syndrome <b>2022</b> , 1	1
61	Protective capacity of carotenoid trans-astaxanthin in rotenone-induced toxicity in Drosophila melanogaster <b>2022</b> , 12, 4594	2

60	Cardio-Protective Properties and Health Benefits of Fish Lipid Bioactives; The Effects of Thermal Processing <b>2022</b> , 20,		5
59	Astaxanthin from Crustaceans and Their Byproducts: A Bioactive Metabolite Candidate for Therapeutic Application <b>2022</b> , 20,		2
58	Astaxanthin Bioactivity Is Determined by Stereoisomer Composition and Extraction Method <b>2022</b> , 14,		1
57	Astaxanthin as a Novel Mitochondrial Regulator: A New Aspect of Carotenoids, beyond Antioxidants <b>2021</b> , 14,		4
56	Astaxanthin protects spinal cord tissues from apoptosis after spinal cord injury in rats <b>2021</b> , 9, 1796		1
55	Development of Astaxanthin-Loaded Nanosized Liposomal Formulation to Improve Bone Health <b>2022</b> , 15,		
54	The Immunostimulant Effects of Isochrysis galbana Supplemented Diet on the Spleen of Red Hybrid Tilapia (Oreochromis spp.) Evaluated by Nuclear Magnetic Resonance Metabolomics. <b>2022</b> , 2022, 1-22		2
53	Astaxanthin Modulates Autophagy, Apoptosis, and Neuronal Oxidative Stress in a Rat Model of Compression Spinal Cord Injury <b>2022</b> , 1		Ο
52	Role of Carotenoids in Cardiovascular Disease.		O
51	Antiaging agents: safe interventions to slow aging and healthy life span extension <b>2022</b> , 12, 18		3
50	The pharmaco-therapy potential of astaxanthin: human and animal targeting roles. 2022,		O
49	Antidiabetic activity and metabolite profiles of ascidian Halocynthia roretzi. <b>2022</b> , 93, 105095		O
48	Immune Boosting Activity of Nutraceuticals and Functional Foods. 2022, 71-100		
47	Application of Algae in Food Science, Antioxidants, Animal Feed, and Aquaculture. <i>Impact of Meat Consumption on Health and Environmental Sustainability</i> , <b>2022</b> , 397-417	0.3	
46	Health benefits of astaxanthin against age-related diseases of multiple organs: A comprehensive review. <i>Critical Reviews in Food Science and Nutrition</i> , 1-66	11.5	1
45	The Putative Role of Astaxanthin in Neuroinflammation Modulation: Mechanisms and Therapeutic Potential. <i>Frontiers in Pharmacology</i> , 13,	5.6	1
44	Cyanobacterial and commercially important carotenoids: Biosynthesis, metabolic engineering, biological activities, applications, and processing. <b>2022</b> , 211-233		O
43	Effects of dietary supplementation of astaxanthin (Ast) on growth performance, activities of digestive enzymes, antioxidant capacity and lipid metabolism of large yellow croaker (Larimichthys crocea) larvae. <i>Aquaculture Research</i> ,	1.9	1

42	Oxidative stress modulates astaxanthin synthesis in Haematococcus pluvialis. <i>Journal of Applied Phycology</i> ,	3.2	О
41	Glycol Chitosan-Astaxanthin Nanoparticles: Water Dispersion, Antioxidant Activity, and Improved Cell Migration. <i>Macromolecular Research</i> ,	1.9	
40	Pharmaceutical and nutraceutical potential of natural bioactive pigment: astaxanthin. 2022, 12,		2
39	The Role of Nutraceutical Supplements, Monacolin K and Astaxanthin, and Diet in Blood Cholesterol Homeostasis in Patients with Myopathy. <b>2022</b> , 12, 1118		
38	A Nutritional Blend Suppresses the Inflammatory Response from Bronchial Epithelial Cells Induced by SARS-CoV-2. 1-15		
37	The landscape of potential health benefits of carotenoids as natural supportive therapeutics in protecting against Coronavirus infection. <b>2022</b> , 154, 113625		O
36	Preparation and characterization of astaxanthin-loaded microcapsules and its application in effervescent tablets.		1
35	Marine Compounds, Mitochondria, and Malignancy: A Therapeutic Nexus. <b>2022</b> , 20, 625		O
34	Shrimp Lipid Prevents Endoplasmic Reticulum-Mediated Endothelial Cell Damage. <b>2022</b> , 11, 3076		О
33	The Role of Astaxanthin as a Nutraceutical in Health and Age-Related Conditions. 2022, 27, 7167		3
32	Shikonin Inhibits Fin Regeneration in Zebrafish Larvae. <b>2022</b> , 11, 3187		О
31	Recent advances in health benefits and bioavailability of dietary astaxanthin and its isomers. <b>2023</b> , 404, 134605		1
30	Nutritional management of dairy animals for sustained production under heat stress scenario. <b>2022</b> , 91,		О
29	Effects of astaxanthin and acute high-intensity exercise on liver oxidative stress in rats.		O
28	Astaxanthin Ameliorates Atopic Dermatitis by Inhibiting the Expression of Signal Molecule NF-kB and Inflammatory Genes in Mice. <b>2022</b> , 39, 304-309		0
27	Anti-Oxidant and Anti-Inflammatory Effects of Astaxanthin on Gastrointestinal Diseases. <b>2022</b> , 23, 1547	1	1
26	Natural Astaxanthin Is a Green Antioxidant Able to Counteract Lipid Peroxidation and Ferroptotic Cell Death. <b>2022</b> , 23, 15137		О
25	Natural Carotenoids as Neuroprotective Agents for Alzheimer Disease: An Evidence-Based Comprehensive Review. <b>2022</b> , 70, 15631-15646		O

24	Heterologous Expression of the Plant-Derived Astaxanthin Biosynthesis Pathway in Yarrowia lipolytica for Glycosylated Astaxanthin Production.	1
23	Recent progress in practical applications of a potential carotenoid astaxanthin in aquaculture industry: a review.	2
22	Bioaccessibility, Bioavailability and Bioactivities of Carotenoids in Microalgae: A Review. 1-30	0
21	SU <b>RI</b> NLERI <b>T</b> KETIMININ BAIIKLIK SITEMIZERINE ETKINI	О
20	Microalgae-Derived Pigments for the Food Industry. <b>2023</b> , 21, 82	3
19	Supercritical extraction of marine antioxidants. 2023, 73-87	О
18	ALSUntangled # 69: astaxanthin. 1-5	О
17	Immunomodulatory and therapeutic potential of marine-derived astaxanthin: current developments and future prospects. <b>2023</b> , 317-325	О
16	Microbial carotenoid production and their potential applications as antioxidants: A current update. <b>2023</b> , 128, 190-205	O
15	Formulation Approaches to Crystalline Status Modification for Carotenoids: Impacts on Dissolution, Stability, Bioavailability, and Bioactivities. <b>2023</b> , 15, 485	О
14	Improving the biological activities of astaxanthin using targeted delivery systems. 1-22	О
13	Extracellular Vesicles, as Drug-Delivery Vehicles, Improve the Biological Activities of Astaxanthin. <b>2023</b> , 12, 473	О
12	Antioxidant and Anti-Inflammatory Effects of Carotenoids in Mood Disorders: An Overview. <b>2023</b> , 12, 676	0
11	Astaxanthin as a King of Ketocarotenoids: Structure, Synthesis, Accumulation, Bioavailability and Antioxidant Properties. <b>2023</b> , 21, 176	O
10	Astaxanthin ameliorates inflammation, oxidative stress, and reproductive outcomes in endometriosis patients undergoing assisted reproduction: A randomized, triple-blind placebo-controlled clinical trial. 14,	0
9	Astaxanthin supplementation counters exercise-induced decreases in immune-related plasma proteins. 10,	O
8	Astaxanthin Alleviates Inflammatory Response in Neonatal Necrotizing Enterocolitis Rats by Regulating NOD2/TLR4 Pathway. <b>2023</b> , 2023, 1-14	O
7	Effects of Astaxanthin supplementation on selected metabolic parameters, anthropometric indices, Sirtuin1 and TNF- <del>Il</del> evels in patients with coronary artery disease: A randomized, double-blind, placebo-controlled clinical trial. 10,	O

#### CITATION REPORT

6	Study on bioactive compounds of microalgae as antioxidants in a bibliometric analysis and visualization perspective. 14,	0
5	Nose to Brain Delivery of AstaxanthinLoaded Nanostructured Lipid Carriers in Rat Model of Alzheimer Disease: Preparation, in vitro and in vivo Evaluation. Volume 18, 1631-1658	O
4	Astaxanthin. <b>2023</b> , 1-41	O
3	Lipid Droplets from Plants and Microalgae: Characteristics, Extractions, and Applications. <b>2023</b> , 12, 594	О
_		
2	A new autophagy-driven protective pathway of Haematococcus astaxanthin against chemical damage in wistar rats with gentamicin-induced acute kidney injury. <b>2023</b> , 103107	0