

Tarun Belwal

List of Publications by Year in descending order

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Version: 2024-02-01

96
papers

4,482
citations

94433

37
h-index

123424

61
g-index

97
all docs

97
docs citations

97
times ranked

5037
citing authors

#	ARTICLE	IF	CITATIONS
1	A critical analysis of extraction techniques used for botanicals: Trends, priorities, industrial uses and optimization strategies. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 100, 82-102.	11.4	278
2	Optimization extraction conditions for improving phenolic content and antioxidant activity in <i>Berberis asiatica</i> fruits using response surface methodology (RSM). <i>Food Chemistry</i> , 2016, 207, 115-124.	8.2	246
3	Sono-physical and sono-chemical effects of ultrasound: Primary applications in extraction and freezing operations and influence on food components. <i>Ultrasonics Sonochemistry</i> , 2020, 60, 104726.	8.2	177
4	Advances in the plant protein extraction: Mechanism and recommendations. <i>Food Hydrocolloids</i> , 2021, 115, 106595.	10.7	173
5	Polyphenols in the treatment of autoimmune diseases. <i>Autoimmunity Reviews</i> , 2019, 18, 647-657.	5.8	155
6	Flavonoids nanoparticles in cancer: Treatment, prevention and clinical prospects. <i>Seminars in Cancer Biology</i> , 2021, 69, 200-211.	9.6	129
7	Optimization of ultrasonic-assisted extraction (UAE) of phenolics and antioxidant compounds from rhizomes of <i>Rheum moorcroftianum</i> using response surface methodology (RSM). <i>Industrial Crops and Products</i> , 2018, 119, 218-225.	5.2	127
8	Dietary Anthocyanins and Insulin Resistance: When Food Becomes a Medicine. <i>Nutrients</i> , 2017, 9, 1111.	4.1	113
9	Recent advances in polysaccharides stabilized emulsions for encapsulation and delivery of bioactive food ingredients: A review. <i>Carbohydrate Polymers</i> , 2020, 242, 116388.	10.2	105
10	Recent advances in scaling-up of non-conventional extraction techniques: Learning from successes and failures. <i>TrAC - Trends in Analytical Chemistry</i> , 2020, 127, 115895.	11.4	104
11	Trends of utilizing mushroom polysaccharides (MPs) as potent nutraceutical components in food and medicine: A comprehensive review. <i>Trends in Food Science and Technology</i> , 2019, 92, 94-110.	15.1	98
12	Sonication-synergistic natural deep eutectic solvent as a green and efficient approach for extraction of phenolic compounds from peels of <i>Carya cathayensis</i> Sarg. <i>Food Chemistry</i> , 2021, 355, 129577.	8.2	96
13	Naringenin and its Nano-formulations for Fatty Liver: Cellular Modes of Action and Clinical Perspective. <i>Current Pharmaceutical Biotechnology</i> , 2018, 19, 196-205.	1.6	82
14	Oral microbiota and Alzheimer's disease: Do all roads lead to Rome?. <i>Pharmacological Research</i> , 2020, 151, 104582.	7.1	79
15	Phytopharmacology of Acerola (<i>Malpighia</i> spp.) and its potential as functional food. <i>Trends in Food Science and Technology</i> , 2018, 74, 99-106.	15.1	78
16	Improved lead removal from aqueous solution using novel porous bentonite - and calcite-biochar composite. <i>Science of the Total Environment</i> , 2020, 709, 136171.	8.0	76
17	Optimization model for ultrasonic-assisted and scale-up extraction of anthocyanins from <i>Pyrus communis</i> 'Starkrimson' fruit peel. <i>Food Chemistry</i> , 2019, 297, 124993.	8.2	75
18	Interaction and binding mechanism of cyanidin-3-O-glucoside to ovalbumin in varying pH conditions: A spectroscopic and molecular docking study. <i>Food Chemistry</i> , 2020, 320, 126616.	8.2	74

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19	Phytosterols and their derivatives: Potential health-promoting uses against lipid metabolism and associated diseases, mechanism, and safety issues. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2020, 19, 1243-1267.	11.7	72
20	Utilization of wastewater from edible oil industry, turning waste into valuable products: A review. <i>Trends in Food Science and Technology</i> , 2020, 99, 21-33.	15.1	70
21	Trends of polyphenolics and anthocyanins accumulation along ripening stages of wild edible fruits of Indian Himalayan region. <i>Scientific Reports</i> , 2019, 9, 5894.	3.3	67
22	Fruits of <i>Terminalia chebula</i> Retz.: A review on traditional uses, bioactive chemical constituents and pharmacological activities. <i>Phytotherapy Research</i> , 2020, 34, 2518-2533.	5.8	66
23	Protein-polysaccharide complex coated W/O/W emulsion as secondary microcapsule for hydrophilic arbutin and hydrophobic coumaric acid. <i>Food Chemistry</i> , 2019, 300, 125171.	8.2	65
24	Natural deep eutectic solvent enhanced pulse-ultrasonication assisted extraction as a multi-stability protective and efficient green strategy to extract anthocyanin from blueberry pomace. <i>LWT - Food Science and Technology</i> , 2021, 144, 111220.	5.2	65
25	Microwave-assisted extraction (MAE) conditions using polynomial design for improving antioxidant phytochemicals in <i>Berberis asiatica</i> Roxb. ex DC. leaves. <i>Industrial Crops and Products</i> , 2017, 95, 393-403.	5.2	63
26	Nanomaterial-based biosensors for sensing key foodborne pathogens: Advances from recent decades. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2020, 19, 1465-1487.	11.7	63
27	Anthocyanins, multi-functional natural products of industrial relevance: Recent biotechnological advances. <i>Biotechnology Advances</i> , 2020, 43, 107600.	11.7	62
28	Phytostilbenes as agrochemicals: biosynthesis, bioactivity, metabolic engineering and biotechnology. <i>Natural Product Reports</i> , 2021, 38, 1282-1329.	10.3	56
29	Whole-cell biocatalytic, enzymatic and green chemistry methods for the production of resveratrol and its derivatives. <i>Biotechnology Advances</i> , 2020, 39, 107461.	11.7	55
30	Ultrasonic impact on viscosity and extraction efficiency of polyethylene glycol: A greener approach for anthocyanins recovery from purple sweet potato. <i>Food Chemistry</i> , 2019, 283, 59-67.	8.2	49
31	Natural products, PGC-1, and Duchenne muscular dystrophy. <i>Acta Pharmaceutica Sinica B</i> , 2020, 10, 734-745.	12.0	48
32	A comprehensive review on phenolic compounds from edible mushrooms: Occurrence, biological activity, application and future prospective. <i>Critical Reviews in Food Science and Nutrition</i> , 2022, 62, 6204-6224.	10.3	48
33	Dietary Flavonoids in the Management of Huntington's Disease: Mechanism and Clinical Perspective. <i>EFood</i> , 2020, 1, 38-52.	3.1	47
34	Optimized microwave assisted extraction (MAE) of alkaloids and polyphenols from <i>Berberis</i> roots using multiple-component analysis. <i>Scientific Reports</i> , 2020, 10, 917.	3.3	46
35	UPLC-Triple-TOF/MS characterization of phenolic constituents and the influence of natural deep eutectic solvents on extraction of <i>Carya cathayensis</i> Sarg. peels: Composition, extraction mechanism and in vitro biological activities. <i>Food Chemistry</i> , 2022, 370, 131042.	8.2	44
36	An improved method for extraction of nutraceutically important polyphenolics from <i>Berberis jaeschkeana</i> C.K. Schneid. fruits. <i>Food Chemistry</i> , 2017, 230, 657-666.	8.2	41

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37	Novel multi-phase nano-emulsion preparation for co-loading hydrophilic arbutin and hydrophobic coumaric acid using hydrocolloids. <i>Food Hydrocolloids</i> , 2019, 93, 92-101.	10.7	41
38	Exogenous Melatonin and Abscisic Acid Expedite the Flavonoids Biosynthesis in Grape Berry of <i>Vitis vinifera</i> cv. Kyoho. <i>Molecules</i> , 2020, 25, 12.	3.8	39
39	Flavonoids targeting NRF2 in neurodegenerative disorders. <i>Food and Chemical Toxicology</i> , 2020, 146, 111817.	3.6	39
40	Occurrence, detection, and dissipation of pesticide residue in plant-derived foodstuff: A state-of-the-art review. <i>Food Chemistry</i> , 2022, 384, 132494.	8.2	39
41	Targeting epigenetics in cancer: therapeutic potential of flavonoids. <i>Critical Reviews in Food Science and Nutrition</i> , 2021, 61, 1616-1639.	10.3	38
42	Preparation and application of novel rice husk biochar-calcite composites for phosphate removal from aqueous medium. <i>Journal of Cleaner Production</i> , 2021, 299, 126802.	9.3	38
43	Effect of Nano-SiO _x /Chitosan Complex Coating on the Physicochemical Characteristics and Preservation Performance of Green Tomato. <i>Molecules</i> , 2019, 24, 4552.	3.8	37
44	Extraction optimization, antidiabetic and antiglycation potentials of aqueous glycerol extract from rice (<i>Oryza sativa</i> L.) bran. <i>LWT - Food Science and Technology</i> , 2019, 103, 147-154.	5.2	34
45	Oxidative DNA damage protective activity and antioxidant potential of <i>Ashtvarga</i> species growing in the Indian Himalayan Region. <i>Industrial Crops and Products</i> , 2017, 102, 173-179.	5.2	32
46	Direct detection of Pb ²⁺ and Cd ²⁺ in juice and beverage samples using PDMS modified nanochannels electrochemical sensors. <i>Food Chemistry</i> , 2021, 356, 129632.	8.2	32
47	Ultrasonic-assisted modifications of macroporous resin to improve anthocyanin purification from a <i>Pyrus communis</i> var. Starkrimson extract. <i>Ultrasonics Sonochemistry</i> , 2020, 62, 104853.	8.2	30
48	Extraction and Characterization of Phenolic Compounds from Bamboo Shoot Shell Under Optimized Ultrasonic-Assisted Conditions: a Potential Source of Nutraceutical Compounds. <i>Food and Bioprocess Technology</i> , 2019, 12, 1741-1755.	4.7	29
49	Valorization of lotus byproduct (<i>Receptaculum Nelumbinis</i>) under green extraction condition. <i>Food and Bioprocess Technology</i> , 2019, 115, 110-117.	3.6	29
50	Elevated CO ₂ alleviates browning development by modulating metabolisms of membrane lipids, proline, and GABA in fresh-cut Asian pear fruit. <i>Scientia Horticulturae</i> , 2021, 281, 109932.	3.6	28
51	A novel W/O/W double emulsion co-delivering brassinolide and cinnamon essential oil delayed the senescence of broccoli via regulating chlorophyll degradation and energy metabolism. <i>Food Chemistry</i> , 2021, 356, 129704.	8.2	28
52	Medicinal plants and their isolated phytochemicals for the management of chemotherapy-induced neuropathy: therapeutic targets and clinical perspective. <i>DARU, Journal of Pharmaceutical Sciences</i> , 2019, 27, 389-406.	2.0	27
53	Effects of elevated CO ₂ on pigment metabolism of postharvest mandarin fruit for degreening. <i>Food Chemistry</i> , 2020, 318, 126462.	8.2	27
54	The chemical composition and potential role of epicuticular and intracuticular wax in four cultivars of table grapes. <i>Postharvest Biology and Technology</i> , 2021, 173, 111430.	6.0	27

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55	Insights into chemometric algorithms for quality attributes and hazards detection in foodstuffs using Raman/surface enhanced Raman spectroscopy. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2021, 20, 2476-2507.	11.7	27
56	Nanoporous hydrogel for direct digital nucleic acid amplification in untreated complex matrices for single bacteria counting. <i>Biosensors and Bioelectronics</i> , 2021, 184, 113199.	10.1	27
57	Chitosan-based melatonin bilayer coating for maintaining quality of fresh-cut products. <i>Carbohydrate Polymers</i> , 2020, 235, 115973.	10.2	26
58	Relationship of Wine Consumption with Alzheimer's Disease. <i>Nutrients</i> , 2020, 12, 206.	4.1	26
59	Involvement of energy metabolism and amino acid metabolism in quality attributes of postharvest <i>Pleurotus eryngii</i> treated with a novel phase change material. <i>Postharvest Biology and Technology</i> , 2021, 173, 111427.	6.0	25
60	Application of Nanomaterials in Isothermal Nucleic Acid Amplification. <i>Small</i> , 2022, 18, e2102711.	10.0	25
61	Targeting mTORs by omega-3 fatty acids: A possible novel therapeutic strategy for neurodegeneration?. <i>Pharmacological Research</i> , 2018, 135, 37-48.	7.1	24
62	Phenolic compounds, antioxidant capacity and antimutagenic activity in different growth stages of in vitro raised plants of <i>Origanum vulgare</i> L.. <i>Molecular Biology Reports</i> , 2019, 46, 2231-2241.	2.3	24
63	Effects of different drying techniques on the quality and bioactive compounds of plant-based products: a critical review on current trends. <i>Drying Technology</i> , 2022, 40, 1539-1561.	3.1	22
64	Influence of seed priming and storage time on germination and enzymatic activity of selected <i>Berberis</i> species. <i>Plant Growth Regulation</i> , 2015, 77, 189-199.	3.4	21
65	Implications of grape extract and its nanoformulated bioactive agent resveratrol against skin disorders. <i>Archives of Dermatological Research</i> , 2019, 311, 577-588.	1.9	21
66	Phytosterols extraction from hickory (<i>Carya cathayensis</i> Sarg.) husk with a green direct citric acid hydrolysis extraction method. <i>Food Chemistry</i> , 2020, 315, 126217.	8.2	21
67	Polyphenolics in leaves of <i>Paris polyphylla</i> : An important high value Himalayan medicinal herb. <i>Industrial Crops and Products</i> , 2018, 117, 66-74.	5.2	20
68	Purification and identification of rice bran (<i>Oryza sativa</i> L.) phenolic compounds with <i>in vitro</i> antioxidant and antidiabetic activity using macroporous resins. <i>International Journal of Food Science and Technology</i> , 2019, 54, 715-722.	2.7	20
69	FaMYB9 is involved in the regulation of C6 volatile biosynthesis in strawberry. <i>Plant Science</i> , 2020, 293, 110422.	3.6	20
70	Evaluation of the status quo of polyphenols analysis: Part I—phytochemistry, bioactivity, interactions, and industrial uses. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2020, 19, 3191-3218.	11.7	19
71	The science of matcha: Bioactive compounds, analytical techniques and biological properties. <i>Trends in Food Science and Technology</i> , 2021, 118, 735-743.	15.1	19
72	Effect of modified atmosphere packaging of different oxygen levels on cooking qualities and phytochemicals of brown rice during accelerated aging storage at 37°C. <i>Food Packaging and Shelf Life</i> , 2020, 25, 100529.	7.5	15

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73	Novel bind-then-release model based on fluorescence spectroscopy analysis with molecular docking simulation: New insights to zero-order release of arbutin and coumaric acid. <i>Food Hydrocolloids</i> , 2021, 112, 106356.	10.7	15
74	The evidence of health benefits and food applications of <i>Thymus vulgaris</i> L.. <i>Trends in Food Science and Technology</i> , 2021, 117, 218-227.	15.1	15
75	Genus <i>Vanda</i> : A review on traditional uses, bioactive chemical constituents and pharmacological activities. <i>Journal of Ethnopharmacology</i> , 2019, 229, 46-53.	4.1	14
76	Interference-free Detection of Caffeine in Complex Matrices Using a Nanochannel Electrode Modified with Binary Hydrophilic/Hydrophobic PDMS. <i>ACS Sensors</i> , 2021, 6, 1604-1612.	7.8	13
77	Sphingolipids in foodstuff: Compositions, distribution, digestion, metabolism and health effects – A comprehensive review. <i>Food Research International</i> , 2021, 147, 110566.	6.2	13
78	Optimization and Mechanism of Phytochemicals Extraction from <i>Camellia Oleifera</i> Shells Using Novel Biosurfactant Nanobubbles Solution Coupled with Ultrasonication. <i>Food and Bioprocess Technology</i> , 2022, 15, 1101-1114.	4.7	13
79	Generation and characterization of nanobubbles in ionic liquid for a green extraction of polyphenols from <i>Carya cathayensis</i> Sarg. <i>Food Chemistry</i> , 2022, 369, 130932.	8.2	12
80	Harnessing polyphenol power by targeting eNOS for vascular diseases. <i>Critical Reviews in Food Science and Nutrition</i> , 2023, 63, 2093-2118.	10.3	10
81	Optimization of ultrasonic-assisted extraction for bioactive compounds in <i>Rubus ellipticus</i> fruits: An important source for nutraceutical and functional foods. <i>Sustainable Chemistry and Pharmacy</i> , 2022, 25, 100603.	3.3	10
82	Genus <i>Blepharis</i> (Acanthaceae): A review of ethnomedicinally used species, and their phytochemistry and pharmacological activities. <i>Journal of Ethnopharmacology</i> , 2021, 265, 113255.	4.1	9
83	Athyrium plants - Review on phytopharmacy properties. <i>Journal of Traditional and Complementary Medicine</i> , 2019, 9, 201-205.	2.7	8
84	High Carbon Dioxide Treatment Modulates Sugar Metabolism and Maintains the Quality of Fresh-Cut Pear Fruit. <i>Molecules</i> , 2020, 25, 4261.	3.8	8
85	Amphiphilic and Biocompatible DNA Origami-Based Emulsion Formation and Nanopore Release for Anti-Melanogenesis Therapy. <i>Small</i> , 2021, 17, e2104831.	10.0	8
86	Influence of the Red LEDs Light Irradiation on the Quality and Chemical Attributes of Postharvest Table Grape (<i>Vitis vinifera</i> L.) During Storage. <i>Food and Bioprocess Technology</i> , 2022, 15, 1436-1447.	4.7	7
87	Solvent-free, ultrafast and ultrathin PDMS coating triggered by plasma for molecule separation and release. <i>Green Chemistry</i> , 2021, 23, 4181-4190.	9.0	6
88	<i>In vitro</i> propagation and antioxidant potential of <i>Berberis asiatica</i> from Western Himalaya. <i>Plant Biosystems</i> , 2022, 156, 490-496.	1.6	6
89	A Comprehensive Review on Preservation of Shiitake Mushroom (<i>Lentinus Edodes</i>): Techniques, Research Advances and Influence on Quality Traits. <i>Food Reviews International</i> , 2023, 39, 2742-2775.	8.4	6
90	Updated insights into anthocyanin stability behavior from bases to cases: Why and why not anthocyanins lose during food processing. <i>Critical Reviews in Food Science and Nutrition</i> , 2023, 63, 8639-8671.	10.3	6

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91	Effect of advanced/hybrid oxidation process involving ultrasonication and ultraviolet radiation (sonophotolysis) on anthocyanin stability: Degradation kinetics and mechanism. <i>Food Chemistry</i> , 2022, 370, 131083.	8.2	5
92	Effect of ultrasound on extraction and stability of polyphenols from <i>Berberis jaeschkeana</i> C.K. Schneid fruits: A comparative study. <i>Sustainable Chemistry and Pharmacy</i> , 2022, 27, 100649.	3.3	4
93	Optimized extraction of polyphenolic antioxidants from the leaves of Himalayan Oak species. <i>PLoS ONE</i> , 2021, 16, e0259350.	2.5	3
94	Neuroprotective Potential of <i>Bacopa monnieri</i> : Modulation of Inflammatory Signals. <i>CNS and Neurological Disorders - Drug Targets</i> , 2022, 21, .	1.4	3
95	Natural Resources for Human Health: A New Interdisciplinary Journal Dedicated to Natural Sciences. , 2021, 1, 1-2.		0
96	Amphiphilic and Biocompatible DNA Origami-Based Emulsion Formation and Nanopore Release for Anti-Melanogenesis Therapy (Small 45/2021). <i>Small</i> , 2021, 17, 2170239.	10.0	0