

Virendra Kumar Saharan

List of Publications by Year in descending order

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49
papers

2,821
citations

159525

30
h-index

243529

44
g-index

50
all docs

50
docs citations

50
times ranked

1958
citing authors

#	ARTICLE	IF	CITATIONS
1	Degradation of Reactive Red 120 dye using hydrodynamic cavitation. Chemical Engineering Journal, 2011, 178, 100-107.	6.6	225
2	Degradation of a cationic dye (Rhodamine 6G) using hydrodynamic cavitation coupled with other oxidative agents: Reaction mechanism and pathway. Ultrasonics Sonochemistry, 2017, 34, 183-194.	3.8	174
3	Hydrodynamic Cavitation as an Advanced Oxidation Technique for the Degradation of Acid Red 88 Dye. Industrial & Engineering Chemistry Research, 2012, 51, 1981-1989.	1.8	149
4	Degradation of reactive orange 4 dye using hydrodynamic cavitation based hybrid techniques. Ultrasonics Sonochemistry, 2014, 21, 1075-1082.	3.8	138
5	Ultrasonic assisted formation and stability of mustard oil in water nanoemulsion: Effect of process parameters and their optimization. Ultrasonics Sonochemistry, 2017, 35, 422-430.	3.8	134
6	Treatment of textile dyeing industry effluent using hydrodynamic cavitation in combination with advanced oxidation reagents. Journal of Hazardous Materials, 2018, 344, 1109-1115.	6.5	132
7	Effect of geometry of hydrodynamically cavitating device on degradation of orange-G. Ultrasonics Sonochemistry, 2013, 20, 345-353.	3.8	122
8	Synergetic effect of combination of AOP's (hydrodynamic cavitation and H ₂ O ₂) on the degradation of neonicotinoid class of insecticide. Journal of Hazardous Materials, 2013, 261, 139-147.	6.5	119
9	Hydrodynamic cavitation: an emerging technology for the intensification of various chemical and physical processes in a chemical process industry. Reviews in Chemical Engineering, 2017, 33, .	2.3	115
10	Degradation of reactive blue 13 using hydrodynamic cavitation: Effect of geometrical parameters and different oxidizing additives. Ultrasonics Sonochemistry, 2017, 37, 192-202.	3.8	106
11	Ultrasound assisted preparation of rGO/TiO ₂ nanocomposite for effective photocatalytic degradation of methylene blue under sunlight. Nano Structures Nano Objects, 2020, 21, 100407.	1.9	102
12	Hydrodynamic cavitation: an advanced oxidation process for the degradation of bio-refractory pollutants. Reviews in Chemical Engineering, 2016, 32, .	2.3	93
13	Reduced Graphene Oxide-Fe ₃ O ₄ Nanocomposite Based Nanofluids: Study on Ultrasonic Assisted Synthesis, Thermal Conductivity, Rheology, and Convective Heat Transfer. Industrial & Engineering Chemistry Research, 2019, 58, 8349-8369.	1.8	84
14	Synthesis and characterization of samarium and nitrogen doped TiO ₂ photocatalysts for photo-degradation of 4-acetamidophenol in combination with hydrodynamic and acoustic cavitation. Separation and Purification Technology, 2019, 209, 254-269.	3.9	79
15	Controlled Hydrodynamic Cavitation: A Review of Recent Advances and Perspectives for Greener Processing. Processes, 2020, 8, 220.	1.3	74
16	Cavitationally induced biodegradability enhancement of a distillery wastewater. Journal of Hazardous Materials, 2012, 219-220, 69-74.	6.5	68
17	Sonochemical preparation of ternary rGO-ZnO-TiO ₂ nanocomposite photocatalyst for efficient degradation of crystal violet dye. Optik, 2020, 208, 164555.	1.4	66
18	Intensification of degradation of imidacloprid in aqueous solutions by combination of hydrodynamic cavitation with various advanced oxidation processes (AOPs). Journal of Environmental Chemical Engineering, 2013, 1, 850-857.	3.3	63

#	ARTICLE	IF	CITATIONS
19	Low pressure hydrodynamic cavitating device for producing highly stable oil in water emulsion: Effect of geometry and cavitation number. <i>Chemical Engineering and Processing: Process Intensification</i> , 2017, 116, 97-104.	1.8	59
20	Computational study of different venturi and orifice type hydrodynamic cavitating devices. <i>Journal of Hydrodynamics</i> , 2016, 28, 293-305.	1.3	58
21	Sonochemical preparation and characterization of rGO/SnO ₂ nanocomposite: Electrochemical and gas sensing performance. <i>Ceramics International</i> , 2020, 46, 11290-11296.	2.3	54
22	Investigation on preparation of graphene oxide-CuO nanocomposite based nanofluids with the aid of ultrasound assisted method for intensified heat transfer properties. <i>Materials Chemistry and Physics</i> , 2020, 251, 123102.	2.0	52
23	Synthesis of hydroxyapatite nanorods for application in water defluoridation and optimization of process variables: Advantage of ultrasonication with precipitation method over conventional method. <i>Ultrasonics Sonochemistry</i> , 2017, 37, 56-70.	3.8	49
24	Enhanced synergistic degradation efficiency using hybrid hydrodynamic cavitation for treatment of tannery waste effluent. <i>Journal of Cleaner Production</i> , 2018, 198, 1406-1421.	4.6	45
25	Curcumin Encapsulation in Multilayer Oil-in-Water Emulsion: Synthesis Using Ultrasonication and Studies on Stability and Antioxidant and Release Activities. <i>Langmuir</i> , 2019, 35, 10866-10876.	1.6	45
26	Improved rate of transesterification reaction in biodiesel synthesis using hydrodynamic cavitating devices of high throat perimeter to flow area ratios. <i>Chemical Engineering and Processing: Process Intensification</i> , 2019, 139, 1-13.	1.8	38
27	Preparation and thermal conductivity investigation of reduced graphene oxide-ZnO nanocomposite-based nanofluid synthesised by ultrasound-assisted method. <i>Materials Research Innovations</i> , 2020, 24, 433-441.	1.0	38
28	Adsorption of methyl red dye from aqueous solution onto eggshell waste material: Kinetics, isotherms and thermodynamic studies. <i>Current Research in Green and Sustainable Chemistry</i> , 2021, 4, 100180.	2.9	37
29	In-vitro synthesis of marble apatite as a novel adsorbent for removal of fluoride ions from ground water: An ultrasonic approach. <i>Ultrasonics Sonochemistry</i> , 2018, 40, 664-674.	3.8	35
30	Valorisation of low fatty acid content waste cooking oil into biodiesel through transesterification using a basic heterogeneous calcium-based catalyst. <i>Biomass and Bioenergy</i> , 2021, 146, 105984.	2.9	34
31	An advanced pretreatment strategy involving hydrodynamic and acoustic cavitation along with alum coagulation for the mineralization and biodegradability enhancement of tannery waste effluent. <i>Ultrasonics Sonochemistry</i> , 2018, 44, 299-309.	3.8	33
32	Process intensification of synthesis of biodiesel using a novel recirculating flow ultrasonication reactor. <i>Chemical Engineering and Processing: Process Intensification</i> , 2017, 122, 21-30.	1.8	27
33	Modeling & simulation studies on batch anaerobic digestion of hydrodynamically cavitating tannery waste effluent for higher biogas yield. <i>Ultrasonics Sonochemistry</i> , 2019, 58, 104692.	3.8	26
34	Synthesis, characterization and heat transfer study of reduced graphene oxide-Al ₂ O ₃ nanocomposite based nanofluids: Investigation on thermal conductivity and rheology. <i>Materials Today Communications</i> , 2021, 26, 101986.	0.9	26
35	Application of hydroxyapatite and its modified forms as adsorbents for water defluoridation: an insight into process synthesis. <i>Reviews in Chemical Engineering</i> , 2020, 36, 369-400.	2.3	25
36	Synthesis of nano alumina for defluoridation of drinking water. <i>Nano Structures Nano Objects</i> , 2018, 13, 109-120.	1.9	22

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37	A comparative study of batch and recirculating flow ultrasonication system for preparation of multilayer olive oil in water emulsion stabilized with whey protein isolate and sodium alginate. <i>Chemical Engineering and Processing: Process Intensification</i> , 2018, 125, 139-149.	1.8	16
38	Studies on performance characteristics of calcium and magnesium amended alumina for defluoridation of drinking water. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 1364-1377.	3.3	11
39	Critical Review on Hydrodynamic Cavitation as an Intensifying Homogenizing Technique for Oil-in-Water Emulsification: Theoretical Insight, Current Status, and Future Perspectives. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 10587-10602.	1.8	10
40	Synthesis of titanium doped hydroxyapatite using waste marble powder for the degradation of Congo Red dye in wastewater. <i>Materials Today: Proceedings</i> , 2022, 57, 1645-1653.	0.9	9
41	Synthesis of calcium titanate from marble waste powder for the degradation of congo red dye. <i>Materials Today: Proceedings</i> , 2021, 43, 995-1002.	0.9	6
42	Studies on the efficacy of ultrasonication processes in combination with advanced oxidizing agents for alum pretreated tannery waste effluent. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104678.	3.3	6
43	Continuous Column Studies for Water Defluoridation Using Synthesized Magnesium-incorporated Hydroxyapatite Pellets: Experimental and Modeling Studies. <i>Environmental Processes</i> , 2018, 5, 261-285.	1.7	4
44	Ultrasonic cavitation assisted synthesis of multilayer emulsions as encapsulating and delivery systems for bioactive compounds. , 2020, , 23-52.		4
45	Green calcium-based photocatalyst derived from waste marble powder for environmental sustainability: A review on synthesis and application in photocatalysis. <i>Environmental Science and Pollution Research</i> , 0, , .	2.7	3
46	Preparation of novel adsorbent (marble hydroxyapatite) from waste marble slurry for ground water treatment to remove fluoride. , 2021, , 899-927.		2
47	Valorization of waste cooking oil (WCO) into biodiesel using acoustic and hydrodynamic cavitation. , 2021, , 231-272.		1
48	Green biomaterial hydroxyapatite derived from waste marble powder for applications in water defluoridation: Comparative study on materials synthesized by different processing routes. <i>Materials Today: Proceedings</i> , 2022, 57, 57-64.	0.9	1
49	Advanced technologies for wastewater treatment: New trends. , 2021, , 85-133.		0