

M Ahmaruzzaman

List of Publications by Year in descending order

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112
papers

8,580
citations

61984

43
h-index

45317

90
g-index

115
all docs

115
docs citations

115
times ranked

9502
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on the utilization of fly ash. <i>Progress in Energy and Combustion Science</i> , 2010, 36, 327-363.	31.2	1,990
2	Adsorption of phenolic compounds on low-cost adsorbents: A review. <i>Advances in Colloid and Interface Science</i> , 2008, 143, 48-67.	14.7	742
3	Rice Husk and Its Ash as Low-Cost Adsorbents in Water and Wastewater Treatment. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 13589-13613.	3.7	722
4	Industrial wastes as low-cost potential adsorbents for the treatment of wastewater laden with heavy metals. <i>Advances in Colloid and Interface Science</i> , 2011, 166, 36-59.	14.7	532
5	Adsorption of phenols from wastewater. <i>Journal of Colloid and Interface Science</i> , 2005, 287, 14-24.	9.4	376
6	A review on potential usage of industrial waste materials for binding heavy metal ions from aqueous solutions. <i>Journal of Water Process Engineering</i> , 2016, 10, 39-47.	5.6	297
7	ZnO nanostructured materials and their potential applications: progress, challenges and perspectives. <i>Nanoscale Advances</i> , 2022, 4, 1868-1925.	4.6	181
8	Batch adsorption of 4-nitrophenol by acid activated jute stick char: Equilibrium, kinetic and thermodynamic studies. <i>Chemical Engineering Journal</i> , 2010, 158, 173-180.	12.7	155
9	Role of Fly Ash in the Removal of Organic Pollutants from Wastewater. <i>Energy & Fuels</i> , 2009, 23, 1494-1511.	5.1	123
10	A novel approach for the synthesis of SnO ₂ nanoparticles and its application as a catalyst in the reduction and photodegradation of organic compounds. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2015, 136, 751-760.	3.9	122
11	Photocatalytic performance of g-C ₃ N ₄ based nanocomposites for effective degradation/removal of dyes from water and wastewater. <i>Materials Research Bulletin</i> , 2021, 143, 111417.	5.2	111
12	CuO nanostructures: facile synthesis and applications for enhanced photodegradation of organic compounds and reduction of p-nitrophenol from aqueous phase. <i>RSC Advances</i> , 2016, 6, 41348-41363.	3.6	107
13	Thermal and catalytic decomposition of waste plastics and its co-processing with petroleum residue through pyrolysis process. <i>Journal of Cleaner Production</i> , 2020, 265, 121639.	9.3	95
14	Enhanced performance of a novel superparamagnetic g-C ₃ N ₄ /NiO/ZnO/Fe ₃ O ₄ nanohybrid photocatalyst for removal of esomeprazole: Effects of reaction parameters, co-existing substances and water matrices. <i>Chemical Engineering Journal</i> , 2020, 395, 124969.	12.7	93
15	Activated Tea Waste as a Potential Low-Cost Adsorbent for the Removal of p-Nitrophenol from Wastewater. <i>Journal of Chemical & Engineering Data</i> , 2010, 55, 4614-4623.	1.9	91
16	Biochar based nanocomposites for photocatalytic degradation of emerging organic pollutants from water and wastewater. <i>Materials Research Bulletin</i> , 2021, 140, 111262.	5.2	86
17	Green synthesis of copper nanoparticles for the efficient removal (degradation) of dye from aqueous phase. <i>Environmental Science and Pollution Research</i> , 2015, 22, 20092-20100.	5.3	81
18	Tin oxide nanostructured materials: an overview of recent developments in synthesis, modifications and potential applications. <i>RSC Advances</i> , 2016, 6, 110996-111015.	3.6	79

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19	Comparative Adsorption Behavior of Ibuprofen and Clofibric Acid onto Microwave Assisted Activated Bamboo Waste. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 9331-9339.	3.7	73
20	Facile synthesis of SnO ₂ quantum dots and its photocatalytic activity in the degradation of eosin Y dye: A green approach. <i>Materials Letters</i> , 2015, 139, 418-421.	2.6	70
21	Tin oxide based nanostructured materials: synthesis and potential applications. <i>Nanoscale</i> , 2022, 14, 1566-1605.	5.6	67
22	Biogenic synthesis of SnO ₂ /activated carbon nanocomposite and its application as photocatalyst in the degradation of naproxen. <i>Applied Surface Science</i> , 2018, 449, 780-789.	6.1	62
23	A novel synthesis of Fe ₂ O ₃ @activated carbon composite and its exploitation for the elimination of carcinogenic textile dye from an aqueous phase. <i>RSC Advances</i> , 2015, 5, 10575-10586.	3.6	61
24	Green synthesis of SnO ₂ quantum dots using <i>Parkia speciosa</i> Hassk pods extract for the evaluation of anti-oxidant and photocatalytic properties. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2018, 184, 44-53.	3.8	61
25	Bio-inspired facile and green fabrication of Au@Ag@AgCl core-shell double shells nanoparticles and their potential applications for elimination of toxic emerging pollutants: A green and efficient approach for wastewater treatment. <i>Chemical Engineering Journal</i> , 2017, 317, 726-741.	12.7	60
26	Photodegradation of methyl violet 6B and methylene blue using tin-oxide nanoparticles (synthesized) <i>Tj ETQq0 0 0 rgBT /Overlock 10 Tf</i>	3.9	59
27	Facile fabrication of g-C ₃ N ₄ supported Fe ₃ O ₄ nanoparticles/ZnO nanorods: A superlative visible light responsive architecture for express degradation of pantoprazole. <i>Chemical Engineering Journal</i> , 2020, 387, 123766.	12.7	59
28	Photo-catalytic activity of Plasmonic Ag@AgCl nanoparticles (synthesized via a green route) for the effective degradation of Victoria Blue B from aqueous phase. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2016, 160, 260-270.	3.8	56
29	Bio-inspired sustainable and green synthesis of plasmonic Ag/AgCl nanoparticles for enhanced degradation of organic compound from aqueous phase. <i>Environmental Science and Pollution Research</i> , 2016, 23, 17702-17714.	5.3	56
30	Microwave assisted facile and green route for synthesis of CuO nanoleaves and their efficacy as a catalyst for reduction and degradation of hazardous organic compounds. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 353, 215-228.	3.9	55
31	A green approach for the synthesis of SnO ₂ nanoparticles and its application in the reduction of p-nitrophenol. <i>Materials Letters</i> , 2015, 157, 260-264.	2.6	54
32	MoS ₂ based nanocomposites: An excellent material for energy and environmental applications. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105836.	6.7	54
33	A novel and green process for the production of tin oxide quantum dots and its application as a photocatalyst for the degradation of dyes from aqueous phase. <i>Journal of Colloid and Interface Science</i> , 2015, 448, 130-139.	9.4	53
34	Coprocessing of Petroleum Vacuum Residue with Plastics, Coal, and Biomass and Its Synergistic Effects. <i>Energy & Fuels</i> , 2007, 21, 891-897.	5.1	52
35	A green and novel approach for the synthesis of SnO ₂ nanoparticles and its exploitation as a catalyst in the degradation of methylene blue under solar radiation. <i>Materials Letters</i> , 2015, 145, 74-78.	2.6	52
36	Biomass derived activated carbon loaded silver nanoparticles: An effective nanocomposites for enhanced solar photocatalysis and antimicrobial activities. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 76, 160-172.	5.8	52

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37	High-value utilization of egg shell to synthesize Silver and Gold—Silver core shell nanoparticles and their application for the degradation of hazardous dyes from aqueous phase-A green approach. <i>Journal of Colloid and Interface Science</i> , 2015, 453, 115-131.	9.4	51
38	Environmentally benign fabrication of SnO ₂ -CNT nanohybrids and their multifunctional efficiency as an adsorbent, catalyst and antimicrobial agent for water decontamination. <i>Scientific Reports</i> , 2019, 9, 12935.	3.3	51
39	Activated Neem Leaf: A Novel Adsorbent for the Removal of Phenol, 4-Nitrophenol, and 4-Chlorophenol from Aqueous Solutions. <i>Journal of Chemical & Engineering Data</i> , 2011, 56, 3004-3016.	1.9	49
40	Novel CuO/Mn ₃ O ₄ /ZnO nanocomposite with superior photocatalytic activity for removal of Rabeprazole from water. <i>Scientific Reports</i> , 2021, 11, 15187.	3.3	49
41	Novel SnO ₂ @ZIF-8/gC ₃ N ₄ nanohybrids for excellent electrochemical performance towards sensing of p-nitrophenol. <i>Environmental Research</i> , 2021, 197, 111077.	7.5	48
42	A facile synthesis of Fe ₃ O ₄ —charcoal composite for the sorption of a hazardous dye from aquatic environment. <i>Journal of Environmental Management</i> , 2015, 163, 163-173.	7.8	47
43	CTAB and SDS assisted facile fabrication of SnO ₂ nanoparticles for effective degradation of carbamazepine from aqueous phase: A systematic and comparative study of their degradation performance. <i>Water Research</i> , 2018, 129, 470-485.	11.3	47
44	A simple approach for the synthesis of silver nanoparticles and their application as a catalyst for the photodegradation of methyl violet 6B dye under solar irradiation. <i>Journal of Environmental Chemical Engineering</i> , 2014, 2, 2269-2279.	6.7	46
45	Application of Coal Fly Ash in Air Quality Management. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 15299-15314.	3.7	44
46	Proximate analyses and predicting HHV of chars obtained from cocracking of petroleum vacuum residue with coal, plastics and biomass. <i>Bioresource Technology</i> , 2008, 99, 5043-5050.	9.6	41
47	Novel Ag-SnO ₂ -gC ₃ N ₄ ternary nanocomposite based gas sensor for enhanced low-concentration NO ₂ sensing at room temperature. <i>Sensors and Actuators B: Chemical</i> , 2021, 326, 128910.	7.8	41
48	A novel Au-SnO ₂ -rGO ternary nanoheterojunction catalyst for UV-LED induced photocatalytic degradation of clothianidin: Identification of reactive intermediates, degradation pathway and in-depth mechanistic insight. <i>Journal of Hazardous Materials</i> , 2020, 397, 122685.	12.4	40
49	Lignocellulosic-derived modified agricultural waste: Development, characterisation and implementation in sequestering pyridine from aqueous solutions. <i>Journal of Colloid and Interface Science</i> , 2014, 428, 222-234.	9.4	38
50	Biomimetic synthesis of silver nanoparticles using the fish scales of <i>Labeo rohita</i> and their application as catalysts for the reduction of aromatic nitro compounds. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 131, 413-423.	3.9	37
51	Biogenic synthesis of Cu nanoparticles and its degradation behavior for methyl red. <i>Materials Letters</i> , 2015, 159, 168-171.	2.6	36
52	Cerium oxide and its nanocomposites: Structure, synthesis, and wastewater treatment applications. <i>Materials Today Communications</i> , 2021, 28, 102562.	1.9	36
53	Adsorptive desulfurization of feed diesel using chemically impregnated coconut coir waste. <i>International Journal of Environmental Science and Technology</i> , 2015, 12, 2847-2856.	3.5	29
54	Lysine monohydrate mediated facile and environment friendly synthesis of SnO ₂ nanoparticles and their prospective applications as a catalyst for the reduction and photodegradation of aromatic compounds. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 2976-2989.	6.7	29

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55	MnO doped SnO ₂ nanocatalysts: Activation of wide band gap semiconducting nanomaterials towards visible light induced photoelectrocatalytic water oxidation. <i>Journal of Colloid and Interface Science</i> , 2017, 505, 756-762.	9.4	29
56	Lithium dodecyl sulphate assisted synthesis of Ag nanoparticles and its exploitation as a catalyst for the removal of toxic dyes. <i>Journal of Molecular Liquids</i> , 2015, 201, 113-123.	4.9	28
57	Fly ash based nanocomposites: a potential material for effective photocatalytic degradation/elimination of emerging organic pollutants from aqueous stream. <i>Environmental Science and Pollution Research</i> , 2021, 28, 46910-46933.	5.3	28
58	Ecofriendly bio-synthetic route to synthesize ZnO nanoparticles using <i>Eryngium foetidum</i> L. and their activity against pathogenic bacteria. <i>Materials Letters</i> , 2018, 228, 37-41.	2.6	27
59	Photocatalytic decomposition behavior and reaction pathways of organic compounds using Cu nanoparticles synthesized via a green route. <i>Photochemical and Photobiological Sciences</i> , 2016, 15, 1272-1281.	2.9	26
60	Facile fabrication of novel Fe ₃ O ₄ -SnO ₂ -gC ₃ N ₄ ternary nanocomposites and their photocatalytic properties towards the degradation of carbofuran. <i>Chemosphere</i> , 2021, 285, 131395.	8.2	26
61	Au-SnO ₂ -CdS ternary nanoheterojunction composite for enhanced visible light-induced photodegradation of imidacloprid. <i>Environmental Research</i> , 2021, 201, 111586.	7.5	25
62	Characterization of Liquid Products Obtained from Cocracking of Petroleum Vacuum Residue with Plastics. <i>Energy & Fuels</i> , 2006, 20, 2498-2503.	5.1	24
63	Biogenic synthesis of SnO ₂ quantum dots encapsulated carbon nanoflakes: An efficient integrated photocatalytic adsorbent for the removal of bisphenol A from aqueous solution. <i>Journal of Alloys and Compounds</i> , 2020, 828, 154093.	5.5	24
64	Remediation of Eriochrome Black T-contaminated aqueous solutions utilizing H ₃ PO ₄ -modified berry leaves as a non-conventional adsorbent. <i>Desalination and Water Treatment</i> , 2015, 56, 1507-1519.	1.0	22
65	A novel green and template free approach for the synthesis of gold nanorice and its utilization as a catalyst for the degradation of hazardous dye. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2015, 142, 266-270.	3.9	22
66	Novel Averrhoa carambola extract stabilized magnetite nanoparticles: a green synthesis route for the removal of chlorazol black E from wastewater. <i>RSC Advances</i> , 2015, 5, 74645-74655.	3.6	22
67	Facile preparation of Copper nanoparticles using <i>Coccinia grandis</i> fruit extract and its application towards the reduction of toxic nitro compound. <i>Materials Today: Proceedings</i> , 2018, 5, 2098-2104.	1.8	20
68	Characterization of liquid products obtained from co-cracking of petroleum vacuum residue with coal and biomass. <i>Journal of Analytical and Applied Pyrolysis</i> , 2008, 81, 37-44.	5.5	19
69	A Non-Conventional Adsorbent for the Removal of Clofibrilic Acid from Aqueous Phase. <i>Separation Science and Technology</i> , 2014, 49, 1592-1603.	2.5	19
70	Comparative study of waste derived adsorbents for sequestering methylene blue from aquatic environment. <i>Journal of Environmental Chemical Engineering</i> , 2015, 3, 395-404.	6.7	19
71	Novel magnetically retrievable In ₂ O ₃ /MoS ₂ /Fe ₃ O ₄ nanocomposite materials for enhanced photocatalytic performance. <i>Scientific Reports</i> , 2021, 11, 6379.	3.3	19
72	Decontamination of cationic and anionic dyes in single and binary mode from aqueous phase by mesoporous pulp waste. <i>Environmental Progress and Sustainable Energy</i> , 2015, 34, 724-735.	2.3	18

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73	Amino acid mediated synthesis of luminescent SnO ₂ nanoparticles. Journal of Industrial and Engineering Chemistry, 2015, 22, 138-146.	5.8	18
74	Surfactant mediated facile fabrication of SnO ₂ quantum dots and their degradation behavior of humic acid. Materials Letters, 2016, 185, 123-126.	2.6	17
75	Fabrication of ZnO@SnO ₂ nanocomposite and its photocatalytic activity for enhanced degradation of Biebrich scarlet. Environmental Science and Pollution Research, 2022, 29, 87347-87360.	5.3	17
76	Biogenic green synthetic route for Janus type Ag:SnO ₂ asymmetric nanocomposite arrays: Plasmonic activation of wide band gap semiconductors towards photocatalytic degradation of Doripenem. Materials Letters, 2018, 230, 203-206.	2.6	16
77	A novel and greener approach for shape controlled synthesis of gold and gold@silver core shell nanostructure and their application in optical coatings. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 145, 280-288.	3.9	15
78	Facile synthesis of 2-dimensional CuO nanoleaves and their degradation behavior for Eosin Y. Materials Letters, 2015, 161, 20-25.	2.6	14
79	SnO ₂ Nanoparticles@CeO ₂ Nanorods Enriched with Oxygen Vacancies for Bifunctional Sensing Performances toward Toxic CO Gas and Arsenate Ions. ACS Omega, 2022, 7, 20357-20368.	3.5	14
80	Fabrication and characterization of novel lignocellulosic biomass tailored Fe ₃ O ₄ nanocomposites: influence of annealing temperature and chlorazol black E sequestration. RSC Advances, 2015, 5, 107466-107473.	3.6	13
81	Investigation on the effective remediation of quinoline at solid/solution interface using modified agricultural waste: an inclusive study. International Journal of Environmental Science and Technology, 2016, 13, 1177-1188.	3.5	13
82	Facile synthesis of rGO/Ag@AgCl core-shells nanocomposite and their multifunctional efficacy as a photocatalyst and antimicrobial agent for decontamination of water. Journal of Alloys and Compounds, 2021, 860, 157988.	5.5	13
83	Ionic liquid based composites: A versatile materials for remediation of aqueous environmental contaminants. Journal of Environmental Management, 2022, 315, 115089.	7.8	13
84	Characterization of liquid products from the co-cracking of ternary and quaternary mixture of petroleum vacuum residue, polypropylene, Samla coal and Calotropis Procera. Fuel, 2008, 87, 1967-1973.	6.4	12
85	Development of efficient magnetic Fe ₂ O ₃ -activated Bakelite nanocomposite as an adsorbent for removal of Victoria blue dye from water. International Journal of Environmental Analytical Chemistry, 2022, 102, 7953-7968.	3.3	12
86	Smart materials for remediation of aqueous environmental contaminants. Journal of Environmental Chemical Engineering, 2021, 9, 106486.	6.7	12
87	Facile synthesis of 2D CuO nanoleaves for the catalytic elimination of hazardous and toxic dyes from aqueous phase: a sustainable approach. Environmental Science and Pollution Research, 2016, 23, 11668-11676.	5.3	11
88	Indigenous north eastern India fern mediated fabrication of spherical silver and anisotropic gold nano structured materials and their efficacy for the abatement of perilous organic compounds from waste water-A green approach. RSC Advances, 2016, 6, 21076-21089.	3.6	11
89	Bioinspired green synthesis of engineered CuSnO ₃ quantum dots: An effective material for superior photocatalytic degradation of Rabepazole. Materials Letters, 2019, 240, 193-196.	2.6	11
90	A new and facile strategy for the one-pot fabrication of luminescent gold nanoclusters and their prospective application. RSC Advances, 2016, 6, 44-56.	3.6	10

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91	Phenolic Wastewater Treatment. , 2014, , 323-368.		9
92	Recent advances in the development of nanocomposites for effective removal of pesticides from aqueous stream. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	9
93	Kinetic Studies on Cocracking of Petroleum Vacuum Residue with Thermoplastics and Biomass (Petrocrop). Petroleum Science and Technology, 2007, 25, 925-936.	1.5	8
94	Activated charcoalâ€“magnetic nanocomposite for remediation of simulated dye polluted wastewater. Water Science and Technology, 2015, 71, 1361-1366.	2.5	8
95	A facile and green strategy for the synthesis of 1-dimensional luminescent ZnO nanorods and their reduction behavior for aromatic nitro-compounds. RSC Advances, 2016, 6, 527-533.	3.6	8
96	Catalytic co-cracking of waste polypropylene and residual fuel oil. Petroleum Science and Technology, 2018, 36, 1455-1462.	1.5	8
97	CeO ₂ /Fe ₃ O ₄ /g-C ₃ N ₄ nanohybrid for adsorptive removal of Rose Bengal from aqueous stream. International Journal of Environmental Analytical Chemistry, 0, , 1-20.	3.3	8
98	Removal of naproxen from aqueous environment using porous sugarcane bagasse: impact of ionic strength, hardness and surfactant. Research on Chemical Intermediates, 2016, 42, 1463-1485.	2.7	7
99	AgNPs-AC Composite for Effective Removal (Degradation) of Naphthol Green B Dye from Aqueous Solution. ChemistrySelect, 2017, 2, 9201-9210.	1.5	7
100	L-lysine mediated facile synthesis of SnO ₂ -biochar nanocomposite and its excellent photocatalytic activity for the reduction of Cr(VI) and degradation of acid yellow 23 dye. Journal of Materials Science: Materials in Electronics, 2022, 33, 13376-13397.	2.2	7
101	Scavenging behavior of <i>Schumannianthus dichotomus</i> -derived activated carbon for the removal of methylene blue from aqueous phase. Environmental Progress and Sustainable Energy, 2014, 33, 1148-1157.	2.3	6
102	Î±-Amino acid assisted facile synthesis of two-dimensional ZnO nanotriangles for removal of noxious pollutants from water phase. Journal of Environmental Chemical Engineering, 2018, 6, 4970-4979.	6.7	5
103	A facile approach for elimination of ibuprofen from wastewater: an experimental and theoretical study. Water and Environment Journal, 2020, 34, 435-443.	2.2	5
104	Correlative HHV prediction from proximate and ultimate analysis of char obtained from co-cracking of residual fuel oil with plastics. Korean Journal of Chemical Engineering, 2021, 38, 1370-1380.	2.7	5
105	Bioinspired Green and Facile Fabrication of Au@Ag@AgCl Hybrid Nanoparticles and Their Catalytic and Antimicrobial Properties. ChemistrySelect, 2017, 2, 5950-5957.	1.5	4
106	Nano Composite from Coal Modified Novolac Resin. Polymer-Plastics Technology and Engineering, 2007, 46, 811-814.	1.9	3
107	Remediation of Fluoride from Groundwater Using Modified Pineapple Juice Extracted Residue. International Journal of Environmental Research, 2022, 16, .	2.3	3
108	TG-DTA Studies on the Cracking of Petroleum Vacuum Residue and Its Co-cracking with Plastics, Coal, and Biomass. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2013, 35, 1670-1679.	2.3	2

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109	Bio-inspired green synthesis of reclaimable ZnO nanoclusters using Parkia speciosa Hassk pods and its potential photocatalytic removal of water-borne pollutant and antioxidant activities. Journal of Materials Science: Materials in Electronics, 2021, 32, 12042-12058.	2.2	2
110	Ecofriendly biosynthetic route for production of Cu nanoparticles and evaluation of their photocatalytic activities for degradation of organic compounds. Journal of the Iranian Chemical Society, 0, , 1.	2.2	1
111	A Rapid Facile and Green Synthesis of Silver Nanoparticles and Its Exploitation as a Catalyst for the Removal of Hazardous Dye. Advanced Science Letters, 2016, 22, 95-98.	0.2	1
112	M-xenes and mxene based nanocomposites: a new generation potential materials for removal of organic contaminants from water. International Journal of Environmental Analytical Chemistry, 0, , 1-17.	3.3	1