

# Indumathi M Nambi

## List of Publications by Year in descending order

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84  
papers

2,487  
citations

201658

27  
h-index

214788

47  
g-index

85  
all docs

85  
docs citations

85  
times ranked

2671  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced fluoride removal from drinking water by magnesia-amended activated alumina granules. <i>Chemical Engineering Journal</i> , 2008, 140, 183-192.	12.7	263
2	Development of a novel graphene/Co <sub>3</sub> O <sub>4</sub> composite for hybrid capacitive deionization system. <i>Desalination</i> , 2019, 451, 102-110.	8.2	143
3	Advanced oxidation processes for the treatment of tannery wastewater. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 3656-3663.	6.7	99
4	Human health risk assessment of ground water contaminated with petroleum PAHs using Monte Carlo simulations: A case study of an Indian metropolitan city. <i>Journal of Environmental Management</i> , 2018, 205, 183-191.	7.8	91
5	Environmental impacts of the Chennai oil spill accident – A case study. <i>Science of the Total Environment</i> , 2018, 626, 795-806.	8.0	87
6	Mass transfer correlations for nonaqueous phase liquid dissolution from regions with high initial saturations. <i>Water Resources Research</i> , 2003, 39, .	4.2	85
7	Ferrocene functionalized graphene based electrode for the electro-Fenton oxidation of ciprofloxacin. <i>Chemosphere</i> , 2018, 209, 113-123.	8.2	78
8	NAPL dissolution in heterogeneous systems: an experimental investigation in a simple heterogeneous system. <i>Journal of Contaminant Hydrology</i> , 2000, 44, 161-184.	3.3	73
9	Non-aqueous phase liquid dissolution in heterogeneous systems: Mechanisms and a local equilibrium modeling approach. <i>Water Resources Research</i> , 1998, 34, 3293-3302.	4.2	72
10	Treatment of petroleum oil spill sludge using the combined ultrasound and Fenton oxidation process. <i>Ultrasonics Sonochemistry</i> , 2019, 51, 340-349.	8.2	67
11	Hexavalent chromium reduction and energy recovery by using dual-chambered microbial fuel cell. <i>Water Science and Technology</i> , 2015, 71, 353-358.	2.5	65
12	Antibiotic usage, residues and resistance genes from food animals to human and environment: An Indian scenario. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 102221.	6.7	64
13	An innate quinone functionalized electrochemically exfoliated graphene/Fe <sub>3</sub> O <sub>4</sub> composite electrode for the continuous generation of reactive oxygen species. <i>Chemical Engineering Journal</i> , 2017, 316, 964-977.	12.7	61
14	Long-read metagenomic sequencing reveals shifts in associations of antibiotic resistance genes with mobile genetic elements from sewage to activated sludge. <i>Microbiome</i> , 2022, 10, 20.	11.1	52
15	Environmental burden by an open dumpsite in urban India. <i>Waste Management</i> , 2019, 85, 151-163.	7.4	48
16	Human health risk assessment for exposure to BTEXN in an urban aquifer using deterministic and probabilistic methods: A case study of Chennai city, India. <i>Environmental Pollution</i> , 2020, 265, 114814.	7.5	48
17	Highly active and stable ferrocene functionalized graphene encapsulated carbon felt array - A novel rotating disc electrode for electro-Fenton oxidation of pharmaceutical compounds. <i>Electrochimica Acta</i> , 2018, 283, 858-870.	5.2	47
18	Performance enhancement of zero valent iron based systems using depassivators: Optimization and kinetic mechanisms. <i>Water Research</i> , 2016, 102, 436-444.	11.3	41

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19	Synthesis, characterization and performance of high energy ball milled meso-scale zero valent iron in Fenton reaction. <i>Journal of Environmental Management</i> , 2016, 181, 847-855.	7.8	40
20	Electrochemical reduction of hexavalent chromium on titania nanotubes with urea as an anolyte additive. <i>Electrochimica Acta</i> , 2018, 284, 427-435.	5.2	40
21	Investigating the degradation of nC12 to nC23 alkanes and PAHs in petroleum- contaminated water by electrochemical advanced oxidation process using an inexpensive Ti/Sb-SnO <sub>2</sub> /PbO <sub>2</sub> anode. <i>Chemical Engineering Journal</i> , 2021, 404, 125268.	12.7	40
22	Catalytic pyrolysis of polyolefin and multilayer packaging based waste plastics: A pilot scale study. <i>Chemical Engineering Research and Design</i> , 2021, 149, 497-506.	5.6	40
23	Low temperature synthesis of highly stable and reusable CMC-Fe <sup>2+</sup> (-nZVI) catalyst for the elimination of organic pollutants. <i>Chemical Engineering Journal</i> , 2016, 289, 544-553.	12.7	39
24	Microwave (MW) remediation of hydrocarbon contaminated soil using spent graphite – An approach for waste as a resource. <i>Journal of Environmental Management</i> , 2019, 230, 151-158.	7.8	37
25	Comprehensive treatment of urban wastewaters using electrochemical advanced oxidation process. <i>Journal of Environmental Management</i> , 2020, 266, 110469.	7.8	36
26	Liquid crystal polaroid glass electrode from e-waste for synchronized removal/recovery of Cr +6 from wastewater by microbial fuel cell. <i>Bioresource Technology</i> , 2015, 195, 96-101.	9.6	35
27	An assessment of subsurface contamination of an urban coastal aquifer due to oil spill. <i>Environmental Monitoring and Assessment</i> , 2017, 189, 148.	2.7	29
28	Process optimization for the recovery of oil from tank bottom sludge using microwave pyrolysis. <i>Chemical Engineering Research and Design</i> , 2021, 148, 392-399.	5.6	28
29	Demonstrating a Comprehensive Wastewater-Based Surveillance Approach That Differentiates Globally Sourced Resistomes. <i>Environmental Science &amp; Technology</i> , 2022, 56, 14982-14993.	10.0	27
30	Understanding the hydrologic control of N cycle: Effect of water filled pore space on heterotrophic nitrification, denitrification and dissimilatory nitrate reduction to ammonium mechanisms in unsaturated soils. <i>Journal of Contaminant Hydrology</i> , 2017, 202, 11-22.	3.3	26
31	Updating the Coupling Algorithm between HYDRUS and MODFLOW in the HYDRUS Package for MODFLOW. <i>Vadose Zone Journal</i> , 2018, 17, 1-8.	2.2	25
32	Numerical modelling on transport of nitrogen from wastewater and fertilizer applied on paddy fields. <i>Ecological Modelling</i> , 2014, 278, 85-99.	2.5	22
33	Numerical modeling of biological clogging on transport of nitrate in an unsaturated porous media. <i>Environmental Earth Sciences</i> , 2015, 73, 3285-3298.	2.7	22
34	Effect of biosurfactants on the aqueous solubility of PCE and TCE. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2009, 44, 1565-1573.	1.7	21
35	Implementation of Solute Transport in the Vadose Zone into the HYDRUS Package for MODFLOW Ground Water, 2019, 57, 392-408.	1.3	21
36	Effect of compositional heterogeneity on dissolution of non-ideal LNAPL mixtures. <i>Journal of Contaminant Hydrology</i> , 2016, 194, 10-16.	3.3	20

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37	Green Approach To Produce a Graphene Thin Film on a Conductive LCD Matrix for the Oxidative Transformation of Ciprofloxacin. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 3453-3462.	6.7	20
38	Soil organic amendments: impacts on sorption of organophosphate pesticides on an alluvial soil. <i>Journal of Soils and Sediments</i> , 2019, 19, 566-578.	3.0	20
39	Electro-enhanced adsorptive removal of ciprofloxacin from aqueous solution on graphite felt. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104299.	6.7	20
40	Numerical modelling on fate and transport of nitrate in an unsaturated system under non-isothermal condition. <i>European Journal of Environmental and Civil Engineering</i> , 2013, 17, 350-373.	2.1	19
41	Numerical Modeling on the Effect of Dissolved Oxygen on Nitrogen Transformation and Transport in Unsaturated Porous System. <i>Environmental Modeling and Assessment</i> , 2014, 19, 283-299.	2.2	19
42	Inactivation behavior and intracellular changes in <i>Escherichia coli</i> during electro-oxidation process using Ti/Sb-SnO <sub>2</sub> /PbO <sub>2</sub> anode: Elucidation of the disinfection mechanism. <i>Environmental Research</i> , 2022, 210, 112749.	7.5	17
43	Numerical modelling on fate and transport of petroleum hydrocarbons in an unsaturated subsurface system for varying source scenario. <i>Journal of Earth System Science</i> , 2015, 124, 655-674.	1.3	16
44	Experimental and Simulation Studies on Nitrogen Dynamics in Unsaturated and Saturated Soil Using HYDRUS-2D. <i>Procedia Technology</i> , 2016, 25, 122-129.	1.1	16
45	Studies on short term weathering of spilled oil along Chennai coast in South India. <i>Journal of Cleaner Production</i> , 2019, 230, 1410-1420.	9.3	16
46	Hexavalent chromium reduction through redox electrolytic cell with urea and cow urine as anolyte. <i>Journal of Environmental Management</i> , 2019, 232, 554-563.	7.8	16
47	Heterocyclic aminopyrazine-reduced graphene oxide coated carbon cloth electrode as an active bio-electrocatalyst for extracellular electron transfer in microbial fuel cells. <i>RSC Advances</i> , 2016, 6, 68827-68834.	3.6	15
48	Biodegradation kinetics of dichlorvos and chlorpyrifos by enriched bacterial cultures from an agricultural soil. <i>Bioremediation Journal</i> , 2019, 23, 259-276.	2.0	14
49	Numerical studies on kinetics of sorption and dissolution and their interactions for estimating mass removal of toluene from entrapped soil pores. <i>Arabian Journal of Geosciences</i> , 2015, 8, 6895-6910.	1.3	13
50	An electro-peroxone-based multi-pronged strategy for the treatment of ibuprofen and an emerging pharmaceutical wastewater using a novel graphene-coated nickel foam electrode. <i>Chemical Engineering Journal</i> , 2022, 450, 137618.	12.7	13
51	Migration and entrapment of mercury in porous media. <i>Journal of Contaminant Hydrology</i> , 2010, 117, 60-70.	3.3	12
52	Numerical study on kinetic/equilibrium behaviour of dissolution of toluene under variable subsurface conditions. <i>European Journal of Environmental and Civil Engineering</i> , 2014, 18, 1070-1093.	2.1	12
53	Single-step removal of Hexavalent chromium and phenol using meso zerovalent iron. <i>Chemosphere</i> , 2020, 248, 125912.	8.2	12
54	Investigating Atrazine Concentrations in the Zwischenscholle Aquifer Using MODFLOW with the HYDRUS-1D Package and MT3DMS. <i>Water (Switzerland)</i> , 2020, 12, 1019.	2.7	12

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55	In situ stabilization of entrapped elemental mercury. <i>Journal of Environmental Management</i> , 2013, 130, 185-191.	7.8	11
56	Transport of ammonium and nitrate in saturated porous media incorporating physiobiotransformations and bioclogging. <i>Bioremediation Journal</i> , 2016, 20, 117-132.	2.0	11
57	Hydrogen production from human and cow urine using in situ synthesized aluminium nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 27319-27329.	7.1	11
58	Understanding nitrogen and carbon biogeochemical transformations and transport dynamics in saturated soil columns. <i>Geoderma</i> , 2017, 285, 185-194.	5.1	10
59	Assessment of meso scale zero valent iron catalyzed Fenton reaction in continuous-flow porous media for sustainable groundwater remediation. <i>Chemical Engineering Journal</i> , 2018, 334, 264-272.	12.7	10
60	Development of a hybrid bifunctional rotating drum electrode system for the enhanced oxidation of ciprofloxacin: An integrated photoelectrocatalysis and photo-electro-Fenton processes. <i>Journal of Water Process Engineering</i> , 2022, 49, 102967.	5.6	10
61	Experimental and numerical investigations on nitrogen species transport in unsaturated soil during various irrigation patterns. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2015, 40, 2429-2455.	1.3	9
62	Scenario-based modelling of mass transfer mechanisms at a petroleum contaminated field site-numerical implications. <i>Journal of Environmental Management</i> , 2016, 175, 9-19.	7.8	9
63	Liquid crystal display electrode assisted bio-reactor for highly stable and enhanced biofilm attachment for wastewater treatment – A sustainable approach for e-waste management. <i>Chemical Engineering Journal</i> , 2019, 358, 1012-1021.	12.7	9
64	Liquid crystal display electrode-assisted bio-electroperoxone treatment train for the abatement of organic contaminants in a pharmaceutical wastewater. <i>Environmental Science and Pollution Research</i> , 2020, 27, 29737-29748.	5.3	9
65	The performance of Cu <sup>2+</sup> as dissolved cathodic electron-shuttle mediator for Cr <sup>6+</sup> reduction in the microbial fuel cell. <i>Sustainable Environment Research</i> , 2020, 30, .	4.2	9
66	Numerical modelling of multicomponent LNAPL dissolution kinetics at residual saturation in a saturated subsurface system. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2014, 39, 1387-1408.	1.3	8
67	Electro-enhanced removal of perchlorate ions from aqueous solution using capacitive deionization process. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 89, 351-360.	5.8	8
68	Deterministic and probabilistic health risk assessment for exposure to non-steroidal anti-inflammatory drugs in an Indian river. <i>Environmental Science and Pollution Research</i> , 2021, 28, 39826-39839.	5.3	8
69	Numerical modelling on fate and transport of coupled adsorption and biodegradation of pesticides in an unsaturated porous medium. <i>ISH Journal of Hydraulic Engineering</i> , 2016, 22, 236-246.	2.1	6
70	Numerical modelling on rate-limited dissolution mass transfer of entrapped petroleum hydrocarbons in a saturated sub-surface system. <i>ISH Journal of Hydraulic Engineering</i> , 2016, 22, 3-15.	2.1	6
71	Application of Combined Chemical Oxidation and Microwave Treatment for Hydrocarbon-Contaminated Soil from an Urban Oil Spill Site. <i>Journal of Hazardous, Toxic, and Radioactive Waste</i> , 2021, 25, 04020074.	2.0	6
72	Numerical investigations on pesticide fate and transport in an unsaturated porous medium for a coupled water and pesticide management. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	2.7	4

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73	Numerical modeling on flow of groundwater energies in transient well capture zones. Environmental Earth Sciences, 2019, 78, 1.	2.7	3
74	DISSOLUTION AND CONTAMINANT TRANSPORT IN AQUIFERS WITH SPATIALLY AND TEMPORALLY VARIABLE HYDRAULIC PROPERTIES. Special Topics and Reviews in Porous Media, 2012, 3, 353-369.	1.1	3
75	Field studies on monitoring the marine oil spill bioremediation site in Chennai. Chemical Engineering Research and Design, 2022, 163, 227-235.	5.6	3
76	Analyzing the flow of energies within the well capture zones under steady state conditions. Groundwater for Sustainable Development, 2018, 6, 134-140.	4.6	2
77	Comparative analysis of molecular and conventional methods for bacteriological water quality assessment in drinking water resources around Chennai. Water Practice and Technology, 2022, 17, 708-718.	2.0	2
78	Crystallization of struvite family crystals from cow urine: analysis, characterization, and effects of crystallization method, retention time, rate of mixing, and competing ions. Biomass Conversion and Biorefinery, 2024, 14, 2357-2368.	4.6	2
79	Numerical investigations on feasibility of surfactant enhanced remediation of polycyclic aromatic hydrocarbons in an unsaturated subsurface system beneath an onshore surface spill site. International Journal of Environmental Technology and Management, 2017, 20, 321.	0.2	1
80	Migration and Capillary Entrapment of Mercury in Porous Media. Springer Transactions in Civil and Environmental Engineering, 2018, , 69-90.	0.4	1
81	Anthropogenic Impact on Tropical Perennial River in South India: Snapshot of Carbon Dynamics and Bacterial Community Composition. Water (Switzerland), 2020, 12, 1354.	2.7	1
82	Tubular Sedimentâ€“Water Electrolytic Fuel Cell for Dual-Phase Hexavalent Chromium Reduction. Environmental Science and Pollution Research, 2022, , 1.	5.3	1
83	DISTRIBUTION OF ELEMENTAL MERCURY IN SATURATED POROUS MEDIA. Journal of Porous Media, 2015, 18, 1221-1229.	1.9	0
84	Sensitivity analysis of inflow boundary conditions on solute transport modeling using M5â€“2 model trees. Modeling Earth Systems and Environment, 0, , 1.	3.4	0