Vaibhav V Goud

List of Publications by Year in descending order

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VAIRHAV V COUD

#	Article	IF	CITATIONS
1	Production of first and second generation biofuels: A comprehensive review. Renewable and Sustainable Energy Reviews, 2010, 14, 578-597.	8.2	2,435
2	Characterization of Canadian biomass for alternative renewable biofuel. Renewable Energy, 2010, 35, 1624-1631.	4.3	357
3	Epoxidation of cottonseed oil by aqueous hydrogen peroxide catalysed by liquid inorganic acids. Bioresource Technology, 2008, 99, 3737-3744.	4.8	266
4	Biodiesel production from renewable feedstocks: Status and opportunities. Renewable and Sustainable Energy Reviews, 2012, 16, 4763-4784.	8.2	262
5	Studies on the epoxidation of mahua oil (Madhumica indica) by hydrogen peroxide. Bioresource Technology, 2006, 97, 1365-1371.	4.8	179
6	Kinetics of epoxidation of jatropha oil with peroxyacetic and peroxyformic acid catalysed by acidic ion exchange resin. Chemical Engineering Science, 2007, 62, 4065-4076.	1.9	150
7	Epoxidation of Canola Oil with Hydrogen Peroxide Catalyzed by Acidic Ion Exchange Resin. JAOCS, Journal of the American Oil Chemists' Society, 2008, 85, 887-896.	0.8	146
8	Epoxidation of karanja (Pongamia glabra) oil by H2 O2. JAOCS, Journal of the American Oil Chemists' Society, 2006, 83, 635-640.	0.8	119
9	Epoxidation of Castor Oil Fatty Acid Methyl Esters (COFAME) as a Lubricant base Stock Using Heterogeneous Ion-exchange Resin (IR-120) as a Catalyst. Energy Procedia, 2014, 54, 75-84.	1.8	98
10	Optimization of methane production during anaerobic co-digestion of rice straw and hydrilla verticillata using response surface methodology. Fuel, 2019, 235, 92-99.	3.4	96
11	Extraction of phenolic compounds and anthocyanin from black and purple rice bran (Oryza sativa L.) using ultrasound: A comparative analysis and phytochemical profiling. Industrial Crops and Products, 2017, 95, 332-341.	2.5	95
12	Pitfalls in the 3, 5-dinitrosalicylic acid (DNS) assay for the reducing sugars: Interference of furfural and 5-hydroxymethylfurfural. International Journal of Biological Macromolecules, 2020, 156, 180-185.	3.6	94
13	Extraction of oil from rubber seeds for biodiesel application: Optimization of parameters. Fuel, 2015, 150, 636-644.	3.4	93
14	Operational Strategies and Comprehensive Evaluation of Menthol Based Deep Eutectic Solvent for the Extraction of Lower Alcohols from Aqueous Media. ACS Sustainable Chemistry and Engineering, 2018, 6, 16920-16932.	3.2	91
15	Characterization of biomasses available in the region of North-East India for production of biofuels. Biomass and Bioenergy, 2012, 45, 212-220.	2.9	90
16	Optimization of dilute acid and hot water pretreatment of different lignocellulosic biomass: A comparative study. Biomass and Bioenergy, 2015, 81, 9-18.	2.9	89
17	Fungal pretreatment and associated kinetics of rice straw hydrolysis to accelerate methane yield from anaerobic digestion. Bioresource Technology, 2019, 286, 121368.	4.8	89
18	Hydrolysis of bamboo biomass by subcritical water treatment. Bioresource Technology, 2015, 191, 244-252.	4.8	87

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19	Improved thermo-oxidative stability of structurally modified waste cooking oil methyl esters for bio-lubricant application. Journal of Cleaner Production, 2016, 112, 4515-4524.	4.6	85
20	Ultrasound Assisted Lime Pretreatment of Lignocellulosic Biomass toward Bioethanol Production. Energy & Fuels, 2012, 26, 3777-3784.	2.5	79
21	Epoxidation of karanja (Pongamia glabra) oil catalysed by acidic ion exchange resin. European Journal of Lipid Science and Technology, 2007, 109, 575-584.	1.0	78
22	Salinity induced lipid production in microalgae and cluster analysis (ICCB 16-BR_047). Bioresource Technology, 2017, 242, 244-252.	4.8	75
23	Optimization of non-catalytic transesterification of microalgae oil to biodiesel under supercritical methanol condition. Energy Conversion and Management, 2018, 156, 269-278.	4.4	70
24	Optimization of process parameters for accelerated methane yield from anaerobic co-digestion of rice straw and food waste. Renewable Energy, 2020, 149, 1352-1359.	4.3	66
25	Effect of light intensity and pH condition on the growth, biomass and lipid content of microalgae <i>Scenedesmus</i> species. Biofuels, 2015, 6, 37-44.	1.4	65
26	Thermal, oxidative and low temperature properties of methyl esters prepared from oils of different fatty acids composition: A comparative study. Thermochimica Acta, 2014, 577, 33-40.	1.2	64
27	Solubility of glucose in tetrabutylammonium bromide based deep eutectic solvents: Experimental and molecular dynamic simulations. Fluid Phase Equilibria, 2017, 448, 168-177.	1.4	62
28	Enhanced methane potential of rice straw with microwave assisted pretreatment and its kinetic analysis. Journal of Environmental Management, 2019, 232, 188-196.	3.8	62
29	Supercritical CO2 fractionation of bio-oil produced from wheat–hemlock biomass. Bioresource Technology, 2010, 101, 7605-7613.	4.8	61
30	Supercritical CO ₂ Fractionation of Bio-oil Produced from Mixed Biomass of Wheat and Wood Sawdust. Energy & Fuels, 2009, 23, 6181-6188.	2.5	60
31	Solubility of glucose, xylose, fructose and galactose in ionic liquids: Experimental and theoretical studies using a continuum solvation model. Fluid Phase Equilibria, 2015, 395, 33-43.	1.4	54
32	Molecular Dynamic Simulations for the Extraction of Quinoline from Heptane in the Presence of a Low-Cost Phosphonium-Based Deep Eutectic Solvent. Journal of Physical Chemistry B, 2018, 122, 4006-4015.	1.2	53
33	Dilute acid pretreatment of sorghum biomass to maximize the hemicellulose hydrolysis with minimized levels of fermentative inhibitors for bioethanol production. 3 Biotech, 2017, 7, 139.	1.1	52
34	Catalytic cracking of waste cooking oil for biofuel production using zirconium oxide catalyst. Industrial Crops and Products, 2018, 118, 282-289.	2.5	50
35	Supercritical CO2 extraction and online fractionation of dry ginger for production of high-quality volatile oil and gingerols enriched oleoresin. Industrial Crops and Products, 2019, 130, 352-362.	2.5	49
36	Epoxidation of Jatropha (<i>Jatropha curcas</i>) oil by peroxyacids. Asia-Pacific Journal of Chemical Engineering, 2010, 5, 346-354.	0.8	48

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37	Composition and anti-bacterial activity analysis of citronella oil obtained by hydrodistillation: Process optimization study. Industrial Crops and Products, 2016, 94, 178-188.	2.5	47
38	Physico-chemical characteristics of Jatropha curcas L. of North East India for exploration of biodiesel. Biomass and Bioenergy, 2012, 46, 546-554.	2.9	45
39	Ionic Liquid and Sulfuric Acid-Based Pretreatment of Bamboo: Biomass Delignification and Enzymatic Hydrolysis for the Production of Reducing Sugars. Industrial & Engineering Chemistry Research, 2018, 57, 10105-10117.	1.8	45
40	RSM-optimised slow pyrolysis of rice husk for bio-oil production and its upgradation. Energy, 2021, 225, 120161.	4.5	40
41	Effect of Subsequent Dilute Acid and Enzymatic Hydrolysis on Reducing Sugar Production from Sugarcane Bagasse and Spent Citronella Biomass. Journal of Energy, 2016, 2016, 1-12.	1.4	38
42	Kinetics of in situ Epoxidation of Natural Unsaturated Triglycerides Catalyzed by Acidic Ion Exchange Resin. Industrial & Engineering Chemistry Research, 2007, 46, 3078-3085.	1.8	36
43	Optimization and hydrolysis of cellulose under subcritical water treatment for the production of total reducing sugars. RSC Advances, 2015, 5, 103265-103275.	1.7	36
44	Solid Liquid Equilibrium of Cellobiose, Sucrose, and Maltose Monohydrate in Ionic Liquids: Experimental and Quantum Chemical Insights. Journal of Chemical & Engineering Data, 2016, 61, 2923-2932.	1.0	33
45	Thermal and co-pyrolysis of rubber seed cake with waste polystyrene for bio-oil production. Journal of Analytical and Applied Pyrolysis, 2019, 139, 333-343.	2.6	33
46	COSMO-RS Based Predictions for the Extraction of Lignin from Lignocellulosic Biomass Using Ionic Liquids: Effect of Cation and Anion Combination. Journal of Solution Chemistry, 2012, 41, 1610-1630.	0.6	31
47	Effect of cellulose nanocrystals derived from Dunaliella tertiolecta marine green algae residue on crystallization behaviour of poly(lactic acid). Carbohydrate Polymers, 2021, 261, 117881.	5.1	31
48	Thermodynamic Insights in the Separation of Cellulose/Hemicellulose Components from Lignocellulosic Biomass Using Ionic Liquids. Journal of Solution Chemistry, 2015, 44, 538-557.	0.6	30
49	Ectopic expression of AtDGAT1, encoding diacylglycerol O-acyltransferase exclusively committed to TAG biosynthesis, enhances oil accumulation in seeds and leaves of Jatropha. Biotechnology for Biofuels, 2016, 9, 226.	6.2	30
50	Ultrasound assisted transesterification of high free fatty acids karanja oil using heterogeneous base catalysts. Biomass Conversion and Biorefinery, 2015, 5, 195-207.	2.9	29
51	Two-step process for production of methyl ester from rubber seed oil using barium hydroxide octahydrate catalyst: Process optimization. Journal of Cleaner Production, 2017, 142, 3490-3499.	4.6	29
52	Multiscale modelling strategies and experimental insights for the solvation of cellulose and hemicellulose in ionic liquids. Molecular Physics, 2018, 116, 2108-2128.	0.8	28
53	Optimisation of the acid catalysed pretreatment of areca nut husk fibre using the Taguchi design method. Biosystems Engineering, 2011, 110, 465-472.	1.9	26
54	Modification of epoxidised canola oil. Asia-Pacific Journal of Chemical Engineering, 2011, 6, 14-22.	0.8	26

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55	Reactive extraction of castor seeds and storage stability characteristics of produced biodiesel. Chemical Engineering Research and Design, 2016, 100, 252-263.	2.7	25
56	In-situ alkaline transesterification of castor seeds: Optimization and engine performance, combustion and emission characteristics of blends. Energy Conversion and Management, 2017, 142, 200-214.	4.4	25
57	In situ epoxidation of waste soybean cooking oil for synthesis of biolubricant basestock: A process parameter optimization and comparison with RSM, ANN, and GA. Canadian Journal of Chemical Engineering, 2018, 96, 1451-1461.	0.9	24
58	In-Situ Epoxidation of Waste Cooking Oil and Its Methyl Esters for Lubricant Applications: Characterization and Rheology. Lubricants, 2021, 9, 27.	1.2	24
59	Effect of Protic and Aprotic Solvents on the Mechanism of Cellulose Dissolution in Ionic Liquids: A Combined Molecular Dynamics and Experimental Insight. ChemistrySelect, 2016, 1, 4823-4832.	0.7	23
60	Chemical composition analysis of various genetically modified sorghum traits: Pretreatment process optimization and bioethanol production from hemicellulosic hydrolyzates without detoxification. Journal of Environmental Chemical Engineering, 2018, 6, 5625-5634.	3.3	22
61	Synthesis of Waste Cooking Oil Epoxide as a Bio-Lubricant Base Stock: Characterization and Optimization Study. Journal of Bioprocess Engineering and Biorefinery, 2014, 3, 57-72.	0.2	22
62	Thermo-chemical conversion of waste rubber seed shell to produce fuel and value-added chemicals. Journal of the Energy Institute, 2018, 91, 940-950.	2.7	21
63	Hydroxylation and hexanoylation of epoxidized waste cooking oil and epoxidized waste cooking oil methyl esters: Process optimization and physico-chemical characterization. Industrial Crops and Products, 2019, 133, 151-159.	2.5	21
64	Development of antioxidant-rich edible active films and coatings incorporated with de-oiled ethanolic green algae extract: a candidate for prolonging the shelf life of fresh produce. RSC Advances, 2022, 12, 13295-13313.	1.7	20
65	Utilization of green seed canola oil for in situ epoxidation. European Journal of Lipid Science and Technology, 2011, 113, 768-774.	1.0	19
66	Removal of Cr(VI) by magnetic iron oxide nanoparticles synthesized from extracellular polymeric substances of chromium resistant acid-tolerant bacterium Lysinibacillus sphaericus RTA-01. Journal of Environmental Health Science & Engineering, 2019, 17, 1001-1016.	1.4	19
67	Antioxidant potential and nutritional compositions of selected ginger varieties found in Northeast India. Industrial Crops and Products, 2019, 128, 167-176.	2.5	19
68	Determination of salutary parameters to facilitate bio-energy production from three uncommon biomasses using thermogravimetric analysis. Journal of Thermal Analysis and Calorimetry, 2013, 111, 1649-1655.	2.0	18
69	Effect of storage parameters on stability of Jatropha-derived biodiesel. International Journal of Energy and Environmental Engineering, 2013, 4, 1.	1.3	18
70	Comparative studies of thermal, oxidative and low temperature properties of waste cooking oil and castor oil. Journal of Renewable and Sustainable Energy, 2013, 5, .	0.8	17
71	Physicochemical and Rheological Characterization of Waste Cooking Oil Epoxide and Their Blends. Waste and Biomass Valorization, 2016, 7, 23-30.	1.8	17
72	Liquefaction of lignocellulosic biomass through biochemical conversion pathway: A strategic approach to achieve an industrial titer of bioethanol. Fuel, 2021, 287, 119545.	3.4	17

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73	Effect of pre-treatment on solvents extraction and physico-chemical properties of castor seed oil. Journal of Renewable and Sustainable Energy, 2014, 6, .	0.8	16
74	COSMO-RS-Based Screening of Antisolvents for the Separation of Sugars from Ionic Liquids: Experimental and Molecular Dynamic Simulations. ACS Omega, 2018, 3, 7358-7370.	1.6	16
75	Influence of Waste Cooking Oil Methyl Ester Biodiesel Blends on the Performance and Emissions of a Diesel Engine. Waste and Biomass Valorization, 2018, 9, 283-292.	1.8	16
76	Biodiesel production from high free fatty acids content Jatropha curcas L. oil using dual step process. Biomass Conversion and Biorefinery, 2013, 3, 361-369.	2.9	15
77	Response surface methodology for optimization of bio″ubricant basestock synthesis from high free fatty acidsÂcastor oil. Energy Science and Engineering, 2015, 3, 371-383.	1.9	15
78	Sono-hydro priming process (ultrasound modulated hydration): Modelling hydration kinetic during paddy germination. Ultrasonics Sonochemistry, 2021, 70, 105321.	3.8	15
79	Biosorption of Cr(VI) on immobilized <i>Hydrilla verticillata</i> in a continuous up-flow packed bed: prediction of kinetic parameters and breakthrough curves. Desalination and Water Treatment, 2012, 50, 115-124.	1.0	14
80	Lignocellulosic feedstocks for the production of bioethanol: availability, structure, and composition. , 2019, , 1-19.		14
81	Mixotrophic growth regime of novel strain Scenedesmus sp. DDVG I in municipal wastewater for concomitant bioremediation and valorization of biomass. Journal of Cleaner Production, 2022, 365, 132834.	4.6	14
82	Chemical composition, pretreatments and saccharification of Senna siamea (Lam.) H.S. Irwin & Barneby: An efficient biomass producing tree legume. Bioresource Technology, 2016, 207, 205-212.	4.8	13
83	Simultaneous extraction and transesterification of castor seeds for biodiesel production: Assessment of biodegradability. Chemical Engineering Research and Design, 2017, 107, 373-387.	2.7	13
84	Rubber Seed Oil Methyl Ester Synthesis, Engine Performance, and Emission Characteristics of Blends. Energy & Fuels, 2015, 29, 5136-5144.	2.5	12
85	The chemometric approach applied to FTIR spectral data for the analysis of lipid content in microalgae cultivated in different nitrogen sources. Biomass Conversion and Biorefinery, 2016, 6, 427-433.	2.9	12
86	Thermal degradation kinetics study and thermal cracking of waste cooking oil for biofuel production. Journal of Thermal Analysis and Calorimetry, 2018, 131, 2157-2165.	2.0	12
87	Degradation kinetics of anthocyanins from purple rice bran and effect of hydrocolloids on its stability. Journal of Food Process Engineering, 2020, 43, e13360.	1.5	12
88	Effect of Waste Green Algal Biomass Extract Incorporated Chitosan-Based Edible Coating on the Shelf Life and Quality Attributes of Tomato. ACS Food Science & Technology, 2022, 2, 1151-1165.	1.3	12
89	Kinetics of reactive absorption of carbon dioxide with solutions of 1,6-hexamethylenediamine in polar protic solvents. Separation and Purification Technology, 2010, 75, 1-7.	3.9	11
90	Infusion of gingerols into candied mango enhances shelf-life by inhibiting browning and associated quality parameters during storage. Food Chemistry, 2020, 316, 126354.	4.2	11

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91	Evaluation of efficient glucose release using sodium hydroxide and phosphoric acid as pretreating agents from the biomass of Sesbania grandiflora (L.) Pers.: A fast growing tree legume. Bioresource Technology, 2017, 236, 97-105.	4.8	10
92	Gingerols infusion and multi-step process optimization for enhancement of color, sensory and functional profiles of candied mango. Food Chemistry, 2019, 300, 125195.	4.2	10
93	Characterization of a low-cost adsorbent derived from agro-waste for ranitidine removal. Materials Science for Energy Technologies, 2020, 3, 879-888.	1.0	10
94	Comparative study of physicochemical and rheological property of waste cooking oil, castor oil, rubber seed oil, their methyl esters and blends with mineral diesel fuel. Materials Science for Energy Technologies, 2021, 4, 148-155.	1.0	10
95	In-Situ Epoxidation of Castor Oil Using Heterogeneous Acidic Ion-Exchange Resin Catalyst (IR-120) for Bio-Lubricant Application. Tribology Online, 2015, 10, 354-359.	0.2	9
96	Improved Low-Temperature Properties of Chemically Modified High Free Fatty Acid Castor Oil–Methyl Esters: Blending and Optimization Study. Journal of Energy Engineering - ASCE, 2016, 142, .	1.0	9
97	Thermal Degradation Kinetic Study of Rubber Seed Oil and Its Methyl Esters under Inert Atmosphere. Energy & Fuels, 2017, 31, 9642-9651.	2.5	9
98	Cultivating Scenedesmus sp. on substrata coated with cyanobacterial-derived extracellular polymeric substances for enhanced biomass productivity: a novel harvesting approach. Biomass Conversion and Biorefinery, 2023, 13, 2971-2983.	2.9	9
99	Thermal decomposition and kinetics of residual rubber seed cake and shell. Journal of Thermal Analysis and Calorimetry, 2017, 129, 577-592.	2.0	8
100	Analysis of thermal, oxidative and cold flow properties of methyl and ethyl esters prepared from soybean and mustard oils. Journal of Thermal Analysis and Calorimetry, 2017, 130, 1501-1511.	2.0	8
101	Subcritical water hydrolysis of spent Java Citronella biomass for production of reducing sugar. Materials Today: Proceedings, 2018, 5, 23128-23135.	0.9	8
102	Exploration of nutritional, antioxidant and antibacterial properties of unutilized rind and seed of passion fruit from Northeast India. Journal of Food Measurement and Characterization, 2021, 15, 3153-3167.	1.6	8
103	Utilization of microalgae residue and isolated cellulose nanocrystals: A study on crystallization kinetics of poly(É›-caprolactone) bio-composites. International Journal of Biological Macromolecules, 2021, 191, 521-530.	3.6	8
104	Bacterial biofilmâ€based nitrate and phosphate removal from rubber latex wastewater for sustainable water usage. Water and Environment Journal, 2020, 34, 170-182.	1.0	7
105	Design of a carrier system for gingerols enriched oleoresin tailored for food applications. Food and Bioproducts Processing, 2020, 124, 296-306.	1.8	7
106	Evaluation of thermophysical, biochemical and antibacterial properties of unconventional vegetable oil from Northeast India. Materials Science for Energy Technologies, 2021, 4, 81-91.	1.0	6
107	Dietary and bioactive properties of the berries and leaves from the underutilized Hippophae salicifolia D. Don grown in Northeast India. Food Science and Biotechnology, 2021, 30, 1555-1569.	1.2	6

108 Current challenges and advances in butanol production. , 2019, , 225-256.

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109	Jatropha (Jatropha curcas L.). Methods in Molecular Biology, 2015, 1224, 25-35.	0.4	4
110	Long-Term Storage Stability of Epoxides Derived from Vegetable Oils and Their Methyl Esters. Energy & Fuels, 2018, 32, 3428-3435.	2.5	4
111	Rural biorefinery: A viable solution for production of fuel and chemicals in rural India. , 2019, , 21-47.		4
112	Structural Characterization of Mixed Rice Straw and Deoiled Algal Cake-Based Substrate as a Potential Bioenergy Feedstock for Microbial Lipids and Carotenoid Production. Waste and Biomass Valorization, 2022, 13, 195-212.	1.8	4
113	Polarity-wise successive solvent extraction of Scenedesmus obliquus biomass and characterization of the crude extracts for broad-spectrum antibacterial activity. Biomass Conversion and Biorefinery, 2024, 14, 2467-2483.	2.9	4
114	Simultaneous ethanol and hydrogen production by fermentation from Bon bogori (Ziziphus rugosa). Renewable Energy Focus, 2018, 26, 71-80.	2.2	3
115	Role of lignocellulosic bioethanol in the transportation sector: limitations and advancements in bioethanol production from lignocellulosic biomass. , 2022, , 57-85.		3
116	Phase transition properties, chemical purity, and solubility of coniferyl alcohol and Dâ€mannose: Experimental and Cosmoâ€RS predictions. Canadian Journal of Chemical Engineering, 2019, 97, 1100-1106.	0.9	2
117	Influence of extrusion cooking on phytochemical, physical and sorption isotherm properties of rice extrudate infused with microencapsulated anthocyanin. Food Science and Biotechnology, 2021, 30, 65-76.	1.2	2
118	Utilization of nonedible oilseeds in a biorefinery approach with special emphasis on rubber seeds. , 2020, , 311-336.		2
119	Advancement in Development of Biodiesel Production in the Last Two Decades: An Indian Overview on Raw Materials, Synthesis, By-products, and Application. , 2017, , 167-188.		1
120	Dilute Acid Pretreatment Efficiency on Various Solid Loadings and Effect of Different Neutralizing Agents on Xylulosic Ethanol Production. , 2019, , 1-7.		1
121	Optimal production of bioâ€char with maximum carbon content under both inert (<scp>N₂</scp>) and reactive (<scp>CO₂</scp>) environment employing <scp>RSM</scp> . Environmental Progress and Sustainable Energy, 2022, 41, .	1.3	1
122	Processing Thermogravimetric Analysis Data for Pyrolysis Kinetic Study of Microalgae Biomass. Springer Proceedings in Energy, 2021, , 1415-1424.	0.2	0