Eriola Betiku

List of Publications by Year
in descending order

68 papers	2,656 citations	159358 30 h-index	189595 50 g-index
69 all docs	69 docs citations	69 times ranked	2060 citing authors

#	Article	IF	Citations
1	Modeling and optimization of Thevetia peruviana (yellow oleander) oil biodiesel synthesis via Musa paradisiacal (plantain) peels as heterogeneous base catalyst: A case of artificial neural network vs. response surface methodology. Industrial Crops and Products, 2014, 53, 314-322.	2.5	202
2	Banana peels as a biobase catalyst for fatty acid methyl esters production using Napoleon's plume (Bauhinia monandra) seed oil: A process parameters optimization study. Energy, 2016, 103, 797-806.	4.5	157
3	Modeling and optimization of bioethanol production from breadfruit starch hydrolyzate vis-Ã-vis response surface methodology and artificial neural network. Renewable Energy, 2015, 74, 87-94.	4.3	154
4	Mathematical modeling and process parameters optimization studies by artificial neural network and response surface methodology: A case of non-edible neem (Azadirachta indica) seed oil biodiesel synthesis. Energy, 2014, 72, 266-273.	4.5	136
5	Performance evaluation of artificial neural network coupled with generic algorithm and response surface methodology in modeling and optimization of biodiesel production process parameters from shea tree (Vitellaria paradoxa) nut butter. Renewable Energy, 2015, 76, 408-417.	4.3	134
6	Predictive capability evaluation of RSM, ANFIS and ANN: A case of reduction of high free fatty acid of palm kernel oil via esterification process. Energy Conversion and Management, 2016, 124, 219-230.	4.4	117
7	Two-Step Conversion of Neem (<i>Azadirachta indica</i>) Seed Oil into Fatty Methyl Esters Using a Heterogeneous Biomass-Based Catalyst: An Example of Cocoa Pod Husk. Energy & Fuels, 2017, 31, 6182-6193.	2.5	94
8	Biodiesel production intensification via microwave irradiation-assisted transesterification of oil blend using nanoparticles from elephant-ear tree pod husk as a base heterogeneous catalyst. Chemical Engineering and Processing: Process Intensification, 2019, 140, 157-170.	1.8	89
9	Cellulase Production by Aspergillus flavus Linn Isolate NSPR 101 fermented in sawdust, bagasse and corncob. African Journal of Biotechnology, 2003, 2, 150-152.	0.3	81
10	Optimization of biodiesel production from Thevetia peruviana seed oil by adaptive neuro-fuzzy inference system coupled with genetic algorithm and response surface methodology. Energy Conversion and Management, 2017, 132, 231-240.	4.4	80
11	Response of fluxome and metabolome to temperature-induced recombinant protein synthesis in Escherichia coli. Journal of Biotechnology, 2007, 132, 375-384.	1.9	78
12	Development of a Novel Mesoporous Biocatalyst Derived from Kola Nut Pod Husk for Conversion of Kariya Seed Oil to Methyl Esters: A Case of Synthesis, Modeling and Optimization Studies. Catalysis Letters, 2019, 149, 1772-1787.	1.4	66
13	Inclusion body anatomy and functioning of chaperone-mediated in vivo inclusion body disassembly during high-level recombinant protein production in Escherichia coli. Journal of Biotechnology, 2007, 127, 244-257.	1.9	62
14	Production of biodiesel from crude neem oil feedstock and its emissions from internal combustion engines. African Journal of Biotechnology, 2012, 11, .	0.3	62
15	Application of Agricultural Waste-Based Catalysts to Transesterification of Esterified Palm Kernel Oil into Biodiesel: A Case of Banana Fruit Peel Versus Cocoa Pod Husk. Waste and Biomass Valorization, 2019, 10, 877-888.	1.8	62
16	Potential of Ripe Plantain Fruit Peels as an Ecofriendly Catalyst for Biodiesel Synthesis: Optimization by Artificial Neural Network Integrated with Genetic Algorithm. Sustainability, 2018, 10, 707.	1.6	60
17	Cocoa pod husk-plantain peel blend as a novel green heterogeneous catalyst for renewable and sustainable honne oil biodiesel synthesis: A case of biowastes-to-wealth. Renewable Energy, 2020, 166, 163-175.	4.3	51
18	Optimization of Bauhinia monandra seed oil extraction via artificial neural network and response surface methodology: A potential biofuel candidate. Industrial Crops and Products, 2015, 67, 387-394.	2.5	50

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19	Methanolysis optimization of sesame (Sesamum indicum) oil to biodiesel and fuel quality characterization. International Journal of Energy and Environmental Engineering, 2013, 4, 9.	1.3	45
20	Statistical approach to the optimization of citric acid production using filamentous fungus Aspergillus niger grown on sweet potato starch hydrolyzate. Biomass and Bioenergy, 2013, 55, 350-354.	2.9	45
21	Sustainable Biodiesel Synthesis from Honne-Rubber-Neem Oil Blend with a Novel Mesoporous Base Catalyst Synthesized from a Mixture of Three Agrowastes. Catalysts, 2020, 10, 190.	1.6	40
22	Optimization of microwave-assisted solvent extraction of non-edible sandbox (Hura crepitans) seed oil: A potential biodiesel feedstock. Renewable Energy, 2019, 141, 349-358.	4.3	39
23	Performance evaluation of three different-shaped bio-digesters for biogas production and optimization by artificial neural network integrated with genetic algorithm. Sustainable Energy Technologies and Assessments, 2018, 26, 116-124.	1.7	38
24	Performance evaluation of adaptive neuro-fuzzy inference system, artificial neural network and response surface methodology in modeling biodiesel synthesis from palm kernel oil by transesterification. Biofuels, 2021, 12, 339-354.	1.4	38
25	Process modeling and optimization of sorrel biodiesel synthesis using barium hydroxide as a base heterogeneous catalyst: appraisal of response surface methodology, neural network and neuro-fuzzy system. Neural Computing and Applications, 2019, 31, 4929-4943.	3.2	37
26	Fermentation parameter optimization of microbial oxalic acid production from cashew apple juice. Heliyon, 2016, 2, e00082.	1.4	36
27	Process optimization of solvent extraction of seed oil from Moringa oleifera: An appraisal of quantitative and qualitative process variables on oil quality using D-optimal design. Biocatalysis and Agricultural Biotechnology, 2019, 20, 101187.	1.5	36
28	A home made kit for plasmid DNA mini-preparation. African Journal of Biotechnology, 2003, 2, 86-87.	0.3	35
29	Substrate Inhibition Kinetics of Phenol Degradation by Pseudomonas aeruginosa and Pseudomonas fluorescence. Biotechnology, 2004, 4, 56-61.	0.5	35
30	<i>Kariya</i> (<i>Hildegardia barteri</i>) seed oil extraction: comparative evaluation of solvents, modeling, and optimization techniques. Chemical Engineering Communications, 2019, 206, 1181-1198.	1.5	31
31	Optimization and kinetic studies on conversion of rubber seed (Hevea brasiliensis) oil to methyl esters over a green biowaste catalyst. Journal of Environmental Management, 2020, 268, 110705.	3.8	28
32	Rubber seed oil extraction: Effects of solvent polarity, extraction time and solid-solvent ratio on its yield and quality. Biocatalysis and Agricultural Biotechnology, 2020, 24, 101522.	1.5	28
33	Optimization of sorrel oil biodiesel production by base heterogeneous catalyst from kola nut pod husk: Neural intelligenceâ€genetic algorithm versus neuroâ€fuzzyâ€genetic algorithm. Environmental Progress and Sustainable Energy, 2020, 39, e13393.	1.3	27
34	Green heterogeneous base catalyst from ripe and unripe plantain peels mixture for the transesterification of waste cooking oil. Chemical Engineering Journal Advances, 2022, 10, 100293.	2.4	26
35	Appraisal of Artificial Neural Network and Response Surface Methodology in Modeling and Process Variable Optimization of Oxalic Acid Production from Cashew Apple Juice: A Case of Surface Fermentation. BioResources, 2015, 10, .	0.5	25
36	Pawpaw (Carica papaya) Peel Waste as a Novel Green Heterogeneous Catalyst for Moringa Oil Methyl Esters Synthesis: Process Optimization and Kinetic Study. Energies, 2020, 13, 5834.	1.6	24

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37	Enzymatic hydrolysis optimization of sweet potato (Ipomoea batatas) peel using a statistical approach. Brazilian Journal of Chemical Engineering, 2013, 30, 467-476.	0.7	23
38	Adaptive neuro-fuzzy inference system-genetic algorithm vs. response surface methodology: A case of optimization of ferric sulfate-catalyzed esterification of palm kernel oil. Chemical Engineering Research and Design, 2017, 111, 211-220.	2.7	23
39	Sorrel (Hibiscus sabdariffa) Seed Oil Extraction Optimization and Quality Characterization. American Chemical Science Journal, 2013, 3, 449-458.	0.2	21
40	A comparative study of the hydrolysis of gamma irradiated lignocelluloses. Brazilian Journal of Chemical Engineering, 2009, 26, 251-255.	0.7	20
41	Yellow Oleander Seed Oil Extraction Modeling and Process Parameters Optimization: Performance Evaluation of Artificial Neural Network and Response Surface Methodology. Journal of Food Processing and Preservation, 2015, 39, 1466-1474.	0.9	18
42	Modelling of synthesis of waste cooking oil methyl esters by artificial neural network and response surface methodology. International Journal of Ambient Energy, 2019, 40, 716-725.	1.4	18
43	Clean sandbox (Hura crepitans) oil methyl esters synthesis: A kinetic and thermodynamic study through pH monitoring approach. Renewable Energy, 2020, 160, 526-537.	4.3	18
44	Production of biodiesel by transesterification of refined soybean oil. International Journal of Biological and Chemical Sciences, 2010, 4, .	0.1	17
45	A novel heterogeneous catalyst synthesis from agrowastes mixture and application in transesterification of yellow oleander-rubber oil: Optimization by Taguchi approach. Fuel, 2022, 312, 122999.	3.4	17
46	Mathematical Modeling and Optimization Studies by Artificial Neural Network, Genetic Algorithm and Response Surface Methodology: A Case of Ferric Sulfate–Catalyzed Esterification of Neem (Azadirachta indica) Seed Oil. Frontiers in Energy Research, 2020, 8, .	1.2	16
47	Media Evaluation of Bioethanol Production from Cassava Starch Hydrolysate UsingSaccharomyces cerevisiae. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2014, 36, 1990-1998.	1.2	13
48	Comparison of Artificial Neural Network and Response Surface Methodology Performance on Fermentation Parameters Optimization of Bioconversion of Cashew Apple Juice to Gluconic Acid. International Journal of Food Engineering, 2015, 11, 393-403.	0.7	9
49	Acetylation of <i>Amaranthus viridis</i> starch: Modeling and process parameters optimization. Food Science and Nutrition, 2018, 6, 1287-1297.	1.5	9
50	Characteristics of CO and NOx emissions from combustion of transmethylated palm kernel oil-based biodiesel blends in a compression ignition engine. Journal of King Saud University, Engineering Sciences, 2019, 31, 178-183.	1.2	9
51	Esterification of Khaya senegalensis seed oil with a solid heterogeneous acid catalyst: Modeling, optimization, kinetic and thermodynamic studies. Cleaner Engineering and Technology, 2021, 4, 100200.	2.1	9
52	Influence of nature of catalyst on biodiesel synthesis via irradiation-aided transesterification of waste cooking oil-honne seed oil blend: Modeling and optimization by Taguchi design method. Energy Conversion and Management: X, 2021, 12, 100119.	0.9	9
53	Auto-hydrolysis of lignocellulosics under extremely low sulphuric acid and high temperature conditions in batch reactor. Biotechnology and Bioprocess Engineering, 2003, 8, 291-293.	1.4	7
54	Process optimization of microwave irradiation–aided transesterification of kariya seed oil by Taguchi orthogonal array: pawpaw trunk as a novel biocatalyst. Biofuels, Bioproducts and Biorefining, 2021, 15, 1006-1020.	1.9	7

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55	Optimization of Sweet Potato Starch Hydrolyzate Production and Its Potential Utilization as Substrate for Citric Acid Production. British Biotechnology Journal, 2013, 3, 169-182.	0.4	7
56	Substrate Channelling and Energetics of Saccharomyces cerevisiae DSM 2155 Grown on Glucose in Fed-Batch Fermentation Process. African Journal of Biotechnology, 2003, 2, 96-103.	0.3	6
57	Process modeling of solvent extraction of oil from Hura crepitans seeds: adaptive neuro-fuzzy inference system versus response surface methodology. Biomass Conversion and Biorefinery, 2023, 13, 247-260.	2.9	6
58	Production of Baker's Yeast (Saccharomyces cerevisiae) from Raw Cassava Starch Hydrolyzates in a Bioreactor under Batch Process. Biotechnology, 2005, 5, 98-103.	0.5	6
59	Biodiesel and its properties. , 2022, , 39-79.		5
60	Potential Utilization of Grass as Solid-fuel (Briquette) in Nigeria. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2014, 36, 2519-2526.	1.2	4
61	Effect of Some Selected Processing Routes on the Nutritional Value of Soy Yoghurt. Journal of Applied Sciences, 2006, 6, 527-530.	0.1	3
62	Statistical Approach to the Optimization of Oil Extraction from Beniseed (Sesamum indicum) Oilseeds. Journal of Food Science and Engineering, 2012, 2, .	0.1	3
63	Development of a rapid, quantitative glucosyltransferase assay based on a screen-printed fructose enzyme electrode and application to optimization studies ongtfD expression in recombinantEscherichia coli. Biotechnology and Bioengineering, 2005, 91, 154-161.	1.7	2
64	Investigation of effects of different cassava cultivars with respect to hydrogen cyanide content on their starch hydrolysis. International Journal of Biological and Chemical Sciences, 2012, 5, .	0.1	1
65	Phytoextraction of Heavy Metals from Complex Industrial Waste Disposal Sites. Environmental Chemistry for A Sustainable World, 2020, , 341-371.	0.3	1
66	Synthesis of Activated Carbons for Heavy Metals Removal. Environmental Chemistry for A Sustainable World, 2021, , 1-31.	0.3	1
67	Editorial: Plant Seed Oils and Their Potential for Biofuel Production. Frontiers in Energy Research, 2021, 9, .	1.2	0
68	Production of Recombinant Glucosyltransferase S in *Escherichia coli* with and without coproduction of molecular chaperones. Nigerian Journal of Genetics, 2008, 20, .	0.0	0