

Yoshihito Shirai

List of Publications by Year in descending order

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83
papers

2,300
citations

201385

27
h-index

233125

45
g-index

86
all docs

86
docs citations

86
times ranked

2411
citing authors

#	ARTICLE	IF	CITATIONS
1	Baseline study of methane emission from open digesting tanks of palm oil mill effluent treatment. <i>Chemosphere</i> , 2005, 59, 1575-1581.	4.2	128
2	Enzymatic hydrolysis of food waste and ethanol fermentation. <i>International Journal of Energy Research</i> , 2009, 33, 164-172.	2.2	115
3	Turning waste to wealth-biodegradable plastics polyhydroxyalkanoates from palm oil mill effluent "a Malaysian perspective. <i>Journal of Cleaner Production</i> , 2010, 18, 1393-1402.	4.6	109
4	Renewable sugars from oil palm frond juice as an alternative novel fermentation feedstock for value-added products. <i>Bioresource Technology</i> , 2012, 110, 566-571.	4.8	94
5	Sustainable production of polyhydroxyalkanoates from renewable oil-palm biomass. <i>Biomass and Bioenergy</i> , 2013, 50, 1-9.	2.9	94
6	Improved economic viability of integrated biogas energy and compost production for sustainable palm oil mill management. <i>Journal of Cleaner Production</i> , 2013, 44, 1-7.	4.6	92
7	Feedstock Recycling of Flame-Resisting Poly(lactic acid)/Aluminum Hydroxide Composite to L-lactide. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 1433-1437.	1.8	91
8	Making Plastics from Garbage.. <i>Journal of Industrial Ecology</i> , 2003, 7, 63-74.	2.8	84
9	Control of racemization for feedstock recycling of PLLA. <i>Green Chemistry</i> , 2003, 5, 575-579.	4.6	62
10	Indigenous cellulolytic and hemicellulolytic bacteria enhanced rapid co-composting of lignocellulose oil palm empty fruit bunch with palm oil mill effluent anaerobic sludge. <i>Bioresource Technology</i> , 2013, 147, 632-635.	4.8	60
11	Reduction of residual pollutants from biologically treated palm oil mill effluent final discharge by steam activated bioadsorbent from oil palm biomass. <i>Journal of Cleaner Production</i> , 2017, 141, 122-127.	4.6	58
12	Adsorption mechanism and effectiveness of phenol and tannic acid removal by biochar produced from oil palm frond using steam pyrolysis. <i>Environmental Pollution</i> , 2021, 269, 116197.	3.7	57
13	Effect of oil palm biomass cellulosic content on nanopore structure and adsorption capacity of biochar. <i>Bioresource Technology</i> , 2021, 332, 125070.	4.8	55
14	Efficient utilization of oil palm frond for bio-based products and biorefinery. <i>Journal of Cleaner Production</i> , 2014, 65, 252-260.	4.6	52
15	Case study for a palm biomass biorefinery utilizing renewable non-food sugars from oil palm frond for the production of poly(3-hydroxybutyrate) bioplastic. <i>Journal of Cleaner Production</i> , 2015, 87, 284-290.	4.6	48
16	Impact of different antibiotics on methane production using waste-activated sludge: mechanisms and microbial community dynamics. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 9355-9364.	1.7	48
17	Evaluation of biomass energy potential towards achieving sustainability in biomass energy utilization in Sabah, Malaysia. <i>Biomass and Bioenergy</i> , 2017, 97, 149-154.	2.9	48
18	Sustainable and integrated palm oil biorefinery concept with value-addition of biomass and zero emission system. <i>Journal of Cleaner Production</i> , 2015, 91, 96-99.	4.6	46

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19	Treatment of effluents from palm oil mill process to achieve river water quality for reuse as recycled water in a zero emission system. <i>Journal of Cleaner Production</i> , 2014, 67, 58-61.	4.6	45
20	Polyhydroxyalkanoate production from anaerobically treated palm oil mill effluent by new bacterial strain <i>Comamonas</i> sp. EB172. <i>World Journal of Microbiology and Biotechnology</i> , 2010, 26, 767-774.	1.7	41
21	Reduction of Methane Released from Palm Oil Mill Lagoon in Malaysia and Its Countermeasures. Mitigation and Adaptation Strategies for Global Change, 2003, 8, 237-252.	1.0	38
22	A Proposal for Zero Emission from Palm Oil Industry Incorporating the Production of Polyhydroxyalkanoates from Palm Oil Mill Effluent.. <i>Journal of Chemical Engineering of Japan</i> , 2002, 35, 9-14.	0.3	37
23	Improved yield and higher heating value of biochar from oil palm biomass at low retention time under self-sustained carbonization. <i>Journal of Cleaner Production</i> , 2015, 104, 475-479.	4.6	36
24	Effects of Single Food Components on Freeze Concentration by Freezing and Thawing Technique. <i>Japan Journal of Food Engineering</i> , 2003, 4, 77-83.	0.1	34
25	Seeking key microorganisms for enhancing methane production in anaerobic digestion of waste sewage sludge. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 5323-5334.	1.7	34
26	Economic analysis of biogas and compost projects in a palm oil mill with clean development mechanism in Malaysia. <i>Environment, Development and Sustainability</i> , 2012, 14, 1065-1079.	2.7	30
27	Oil Palm Biomass Biorefinery for Sustainable Production of Renewable Materials. <i>Biotechnology Journal</i> , 2019, 14, e1800394.	1.8	28
28	Intracellular polyhydroxyalkanoates recovery by cleaner halogen-free methods towards zero emission in the palm oil mill. <i>Journal of Cleaner Production</i> , 2012, 37, 353-360.	4.6	25
29	Self-sustained carbonization of oil palm biomass produced an acceptable heating value charcoal with low gaseous emission. <i>Journal of Cleaner Production</i> , 2015, 89, 257-261.	4.6	25
30	Bacterial community shift for monitoring the co-composting of oil palm empty fruit bunch and palm oil mill effluent anaerobic sludge. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2017, 44, 869-877.	1.4	25
31	Anhydride production as an additional mechanism of poly(3-hydroxybutyrate) pyrolysis. <i>Journal of Applied Polymer Science</i> , 2009, 111, 323-328.	1.3	24
32	Continuous Production of Organic Acids from Palm Oil Mill Effluent with Sludge Recycle by the Freezing-Thawing Method. <i>Journal of Chemical Engineering of Japan</i> , 2003, 36, 707-710.	0.3	23
33	Effect of pH Adjustment on Preservation of Kitchen Waste Used for Producing Lactic Acid. <i>Water, Air, and Soil Pollution</i> , 2003, 144, 405-418.	1.1	22
34	A one-step self-sustained low temperature carbonization of coconut shell biomass produced a high specific surface area biochar-derived nano-adsorbent. <i>Waste Management and Research</i> , 2019, 37, 551-555.	2.2	22
35	Enhancement of Agro-Industrial Waste Composting Process via the Microbial Inoculation: A Brief Review. <i>Agronomy</i> , 2022, 12, 198.	1.3	21
36	Case study: Preliminary assessment of integrated palm biomass biorefinery for bioethanol production utilizing non-food sugars from oil palm frond petiole. <i>Energy Conversion and Management</i> , 2016, 108, 233-242.	4.4	20

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37	Life Cycle Assessment for Bioethanol Production from Oil Palm Frond Juice in an Oil Palm Based Biorefinery. Sustainability, 2019, 11, 6928.	1.6	20
38	Assessment of Municipal Solid Waste Generation in Universiti Putra Malaysia and Its Potential for Green Energy Production. Sustainability, 2019, 11, 3909.	1.6	19
39	A highly thermostable crude endoglucanase produced by a newly isolated Thermobifida fusca strain UPMC 901. Scientific Reports, 2019, 9, 13526.	1.6	19
40	Oil Palm Frond Juice as Future Fermentation Substrate: A Feasibility Study. BioMed Research International, 2014, 2014, 1-8.	0.9	18
41	Promotion of a green economy with the palm oil industry for biodiversity conservation: A touchstone toward a sustainable bioindustry. Journal of Bioscience and Bioengineering, 2022, 133, 414-424.	1.1	18
42	Production of L(+)-Lactic Acid from Mixed Acid and Alkali Hydrolysate of Brown Seaweed. Food Science and Technology Research, 2011, 17, 155-160.	0.3	16
43	Pyrosequencing analysis of microbial community and food-borne bacteria on restaurant cutting boards collected in Seri Kembangan, Malaysia, and their correlation with grades of food premises. International Journal of Food Microbiology, 2015, 200, 57-65.	2.1	16
44	Characterization and application of bioactive compounds in oil palm mesocarp fiber superheated steam condensate as an antifungal agent. RSC Advances, 2016, 6, 84672-84683.	1.7	16
45	Toxicity identification and evaluation of palm oil mill effluent and its effects on the planktonic crustacean Daphnia magna. Science of the Total Environment, 2020, 710, 136277.	3.9	16
46	Synthesis, Characterization, and Structural Properties of Intracellular Copolyester Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) Produced by <i>Comamonas</i> sp. EB 172 from Renewable Resource. International Journal of Polymer Analysis and Characterization, 2010, 15, 329-340.	0.9	15
47	Co-composting of Municipal Sewage Sludge and Landscaping Waste: A Pilot Scale Study. Waste and Biomass Valorization, 2017, 8, 695-705.	1.8	15
48	Dynamics of Microbial Populations Responsible for Biodegradation during the Full-Scale Treatment of Palm Oil Mill Effluent. Microbes and Environments, 2019, 34, 121-128.	0.7	15
49	Effect of Sodium Chloride on Freeze Concentration of Food Components by Freezing and Thawing Technique. Japan Journal of Food Engineering, 2004, 5, 97-103.	0.1	14
50	Pilot-scale open fermentation of food waste to produce lactic acid without inoculum addition. RSC Advances, 2016, 6, 104354-104358.	1.7	14
51	Dynamically controlled fibrillation under combination of ionic liquid with mechanical grinding. Journal of Applied Polymer Science, 2017, 134, .	1.3	13
52	Successful scaling-up of self-sustained pyrolysis of oil palm biomass under pool-type reactor. Waste Management and Research, 2016, 34, 176-180.	2.2	12
53	Economic Analysis on Production of Bacterial Polyhydroxyalkanoates from Palm Oil Mill Effluent.. Journal of Chemical Engineering of Japan, 1997, 30, 751-755.	0.3	11
54	Visualization of Core-Shell PHBV Granules of Wild Type <i>Comamonas</i> sp. EB172 <i>In Vivo</i> under Transmission Electron Microscope. International Journal of Polymer Analysis and Characterization, 2011, 16, 228-238.	0.9	11

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55	Selective Depolymerization of Poly-L-lactic Acid into L,L-Lactide from Blends with Polystyrene. <i>Kobunshi Ronbunshu</i> , 2007, 64, 745-750.	0.2	10
56	Ecotoxicological assessment of palm oil mill effluent final discharge by zebrafish (<i>Danio rerio</i>) embryonic assay. <i>Environmental Pollution</i> , 2021, 277, 116780.	3.7	10
57	Freezing and Thawing Technique for the Removal of Suspended Solids and Concentration of Palm Oil Mill Effluent (POME).. <i>Journal of Chemical Engineering of Japan</i> , 2002, 35, 1017-1019.	0.3	9
58	Carbon monoxide reduction in the flue gas during biochar production from oil palm empty fruit bunch. <i>Journal of Cleaner Production</i> , 2020, 258, 120580.	4.6	9
59	Indigenous cellulolytic aerobic and facultative anaerobic bacterial community enhanced the composting of rice straw and chicken manure with biochar addition. <i>Scientific Reports</i> , 2022, 12, 5930.	1.6	8
60	Superheated Steam Treatment of Oil Palm Mesocarp Fiber Improved the Properties of Fiber-Polypropylene Biocomposite. <i>BioResources</i> , 2016, 12, .	0.5	7
61	Repeated-batch Ethanol Fermentation of Kitchen Refuse by Acid-tolerant Flocculating Yeast Under the Non-sterilized Condition. <i>Japan Journal of Food Engineering</i> , 2007, 8, 275-280.	0.1	6
62	Simple Manufacture of Surface-Modified Nanolignocellulose Fiber via Vapor-Phase-Assisted Surface Polymerization. <i>ACS Omega</i> , 2018, 3, 4545-4550.	1.6	6
63	Kitchen Refuse: a Novel Substrate for L (+) -Lactic Acid Production by <i>Rhizopus oryzae</i> in Submerged Fermentation. <i>Japan Journal of Food Engineering</i> , 2005, 6, 45-52.	0.1	6
64	Preferential Substrate Utilization by <i>Propionibacterium shermanii</i> in Kitchen Refuse Medium. <i>Japan Journal of Food Engineering</i> , 2005, 6, 37-44.	0.1	5
65	Oil Palm Biomass Biorefinery for Future Bioeconomy in Malaysia. , 2019, , 265-285.		5
66	Enhanced Biogas Production from Palm Oil Mill Effluent Supplemented with Untreated Oil Palm Empty Fruit Bunch Biomass with a Change in the Microbial Community. <i>Japan Journal of Food Engineering</i> , 2012, 13, 37-41.	0.1	4
67	A Simple Synthetic Route for the Preparation of Tetramethylglycolide from Lactic Acid. <i>Chemistry Letters</i> , 2013, 42, 159-161.	0.7	4
68	Enhancement of compatibility based on vapor-phase-assisted surface polymerization (VASP) method for polymer composites with agricultural wastes. <i>Composite Interfaces</i> , 2014, 21, 773-785.	1.3	4
69	Synthesis of Bio-based Monomer from Vegetable Oil Fatty Acids and Design of Functionalized Greener Polyester. <i>Chemistry Letters</i> , 2014, 43, 1517-1519.	0.7	4
70	Kinetics of Xylan Autohydrolysis During Subcritical Hydrothermal Pretreatment of Oil Palm Frond Pressed Fiber. <i>Bioenergy Research</i> , 2022, 15, 439-453.	2.2	4
71	Design of biodegradable PCL/PI films as a joining tape for grafting plant. <i>Environmental Technology (United Kingdom)</i> , 2017, 38, 2362-2372.	1.2	3
72	Surface modification for nano-lignocellulose fiber through vapor-phase-assisted surface polymerization. <i>Journal of Polymer Science Part A</i> , 2019, 57, 2575-2580.	2.5	3

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73	Periodic change in DO concentration for efficient poly- β -hydroxy-butyrate production using temperature-inducible recombinant <i>Escherichia coli</i> with proteome analysis. <i>Biotechnology and Bioprocess Engineering</i> , 2002, 7, 281-288.	1.4	2
74	Inhibitory Effect of Additives on Cellulase Adsorption Mediated by Hydrophobic Interaction. <i>Journal of the Japan Petroleum Institute</i> , 2018, 61, 357-360.	0.4	2
75	Sustainability of Oil Palm Biomass-Based Products. , 2019, , 207-242.		2
76	Enhancement of Lactic Acid Production from Kitchen Refuse by <i>Rhizopus oryzae</i> KPS 106 Immobilized on Loofa Sponge. <i>Japan Journal of Food Engineering</i> , 2005, 6, 121-131.	0.1	2
77	Sodium Succinate Recovery and Purification from Kitchen-refuse Fermentation Broth by Salting-out Precipitation Using Antisolvent. <i>Japan Journal of Food Engineering</i> , 2005, 6, 279-287.	0.1	2
78	Preparation and Characterization of Activated Carbons from Wastes Generated during Lactic Acid Fermentation from Garbage. <i>Journal of Chemical Engineering of Japan</i> , 2004, 37, 889-894.	0.3	1
79	Removal of Suspended Solid from Kitchen Garbage Saccharification Solution by Freezing and Thawing Technique. <i>Japan Journal of Food Engineering</i> , 2009, 10, 63-68.	0.1	1
80	A Social Experiment on Providing Comprehensive Explanations to the Public regarding Environmental Technologies : Case Study on a Metals Recovery Technology. <i>Journal of the Japan Society of Material Cycles and Waste Management</i> , 2015, 26, 104-116.	0.1	0
81	Utilization of felled oil palm trunk: Trunk sections storage on oil palm sap production. , 2015, , .		0
82	An Investigation into the Role and Effects of the Organic Waste Composting Takakura Composting Method in Indonesia. <i>Journal of the Japan Society of Material Cycles and Waste Management</i> , 2016, 27, 84-91.	0.1	0
83	Study of Social Cost Benefit Analysis for Biodiesel Conversion Project that Features Collaboration with Employment Support Facilities for People with Disabilities and their Local Government. <i>Journal of the Japan Society of Material Cycles and Waste Management</i> , 2021, 32, 157-166.	0.1	0