

Apostolos Giannis

List of Publications by Year in descending order

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113
papers

5,915
citations

81434

41
h-index

90395

73
g-index

113
all docs

113
docs citations

113
times ranked

6395
citing authors

#	ARTICLE	IF	CITATIONS
1	Higher bacterial diversity in two-phase thermophilic anaerobic digestion of food waste after micronutrient supplementation. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 5187-5195.	2.9	4
2	Technical and environmental assessment of laboratory scale approach for sustainable management of marine plastic litter. <i>Journal of Hazardous Materials</i> , 2022, 421, 126717.	6.5	25
3	High temperature slagging gasification of municipal solid waste with biomass charcoal as a greener auxiliary fuel. <i>Journal of Hazardous Materials</i> , 2022, 423, 127057.	6.5	24
4	Activated multi-walled carbon nanotubes decorated with zero valent nickel nanoparticles for arsenic, cadmium and lead adsorption from wastewater in a batch and continuous flow modes. <i>Journal of Hazardous Materials</i> , 2022, 423, 126993.	6.5	96
5	Thermal behavior of Cu-Mg-Al-Ba/Sr bifunctional composites during chemical looping combustion and HCl adsorption of MSW syngas. <i>Chemical Engineering Journal</i> , 2022, 430, 132871.	6.6	8
6	Temperature-dependent synthesis of multi-walled carbon nanotubes and hydrogen from plastic waste over A-site-deficient perovskite $\text{La}_{0.8}\text{Ni}_{1-x}\text{Co}_x\text{O}_{3-\delta}$. <i>Chemosphere</i> , 2022, 291, 132831.	4.2	8
7	Chemical recycling of plastic waste for sustainable material management: A prospective review on catalysts and processes. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 154, 111866.	8.2	110
8	Modeling the Life Cycle Inventory of a Centralized Composting Facility in Greece. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2047.	1.3	4
9	Upgrading waste plastic derived pyrolysis gas via chemical looping cracking-gasification using Ni-Fe-Al redox catalysts. <i>Chemical Engineering Journal</i> , 2022, 438, 135580.	6.6	20
10	Advanced Ni tar reforming catalysts resistant to syngas impurities: Current knowledge, research gaps and future prospects. <i>Fuel</i> , 2022, 318, 123602.	3.4	15
11	Tailoring $\text{Fe}_2\text{O}_3\text{-Al}_2\text{O}_3$ catalyst structure and activity via hydrothermal synthesis for carbon nanotubes and hydrogen production from polyolefin plastics. <i>Chemosphere</i> , 2022, 297, 134148.	4.2	14
12	Catalysing electrowinning of copper from E-waste: A critical review. <i>Chemosphere</i> , 2022, 298, 134340.	4.2	11
13	Sorbents for high-temperature removal of alkali metals and HCl from municipal solid waste derived syngas. <i>Fuel</i> , 2022, 321, 124058.	3.4	4
14	Converting polyolefin plastics into few-walled carbon nanotubes via a tandem catalytic process: Importance of gas composition and system configuration. <i>Journal of Hazardous Materials</i> , 2022, 435, 128949.	6.5	17
15	Few-walled carbon nanotubes derived from shoe waste plastics: Effect of feedstock composition on synthesis, properties and application as CO ₂ reduction electrodes. <i>Journal of Cleaner Production</i> , 2022, 356, 131868.	4.6	13
16	Energy decarbonisation in the European Union: Assessment of photovoltaic waste recycling potential. <i>Renewable Energy</i> , 2022, 192, 1-13.	4.3	14
17	Unravelling the significance of catalyst reduction stage for high tar reforming activity in the presence of syngas impurities. <i>Applied Catalysis A: General</i> , 2022, 642, 118711.	2.2	3
18	Effect of alkali earth metal doping on the CuO/Al ₂ O ₃ oxygen carrier agglomeration resistance during chemical looping combustion. <i>Journal of Cleaner Production</i> , 2022, 366, 132970.	4.6	11

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19	Ba-Al-decorated iron ore as bifunctional oxygen carrier and HCl sorbent for chemical looping combustion of syngas. <i>Combustion and Flame</i> , 2021, 223, 230-242.	2.8	26
20	Hydrogen bromide in syngas: Effects on tar reforming, water gas-shift activities and sintering of Ni-based catalysts. <i>Applied Catalysis B: Environmental</i> , 2021, 280, 119435.	10.8	9
21	Life cycle assessment of plastic grocery bags and their alternatives in cities with confined waste management structure: A Singapore case study. <i>Journal of Cleaner Production</i> , 2021, 278, 123956.	4.6	63
22	Oxygen carriers from incineration bottom ash for chemical looping combustion of syngas: Effect of composition on combustion efficiency. <i>Chemical Engineering Journal</i> , 2021, 405, 127068.	6.6	16
23	Effective H ₂ S control during chemical looping combustion by iron ore modified with alkaline earth metal oxides. <i>Energy</i> , 2021, 218, 119548.	4.5	17
24	Iron ore modified with alkaline earth metals for the chemical looping combustion of municipal solid waste derived syngas. <i>Journal of Cleaner Production</i> , 2021, 282, 124467.	4.6	18
25	Dual-functional witherite in improving chemical looping performance of iron ore and simultaneous adsorption of HCl in syngas at high temperature. <i>Chemical Engineering Journal</i> , 2021, 413, 127538.	6.6	14
26	Transformation behaviors and environmental risk assessment of heavy metals during resource recovery from Sedum plumbizincicola via hydrothermal liquefaction. <i>Journal of Hazardous Materials</i> , 2021, 410, 124588.	6.5	26
27	Weakening the strong Fe-La interaction in A-site-deficient perovskite via Ni substitution to promote the thermocatalytic synthesis of carbon nanotubes from plastics. <i>Journal of Hazardous Materials</i> , 2021, 403, 123642.	6.5	23
28	The Effects of Washing Techniques on Thermal Combustion Properties of Sewage Sludge Chars. <i>International Journal of Environmental Research</i> , 2021, 15, 285-297.	1.1	3
29	In situ catalytic reforming of plastic pyrolysis vapors using MSW incineration ashes. <i>Environmental Pollution</i> , 2021, 276, 116681.	3.7	22
30	Flexible packaging plastic waste – environmental implications, management solutions, and the way forward. <i>Current Opinion in Chemical Engineering</i> , 2021, 32, 100684.	3.8	26
31	Multiwall carbon nanotubes derived from plastic packaging waste as a high-performance electrode material for supercapacitors. <i>International Journal of Energy Research</i> , 2021, 45, 19611-19622.	2.2	26
32	Selective leaching of scandium and yttrium from red mud induced by hydrothermal treatment. <i>Journal of Chemical Technology and Biotechnology</i> , 2021, 96, 2620-2629.	1.6	1
33	Support effects on thermocatalytic pyrolysis-reforming of polyethylene over impregnated Ni catalysts. <i>Applied Catalysis A: General</i> , 2021, 622, 118222.	2.2	20
34	Dynamic estimation of future obsolete laptop flows and embedded critical raw materials: The case study of Greece. <i>Waste Management</i> , 2021, 132, 74-85.	3.7	8
35	Chemical looping combustion-adsorption of HCl-containing syngas using alkaline-earth coated iron ore composites for simultaneous purification and combustion enhancement. <i>Chemical Engineering Journal</i> , 2021, 417, 129226.	6.6	23
36	Environmental footprint of voltammetric sensors based on screen-printed electrodes: An assessment towards “green” sensor manufacturing. <i>Chemosphere</i> , 2021, 278, 130462.	4.2	32

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37	Upcycling of exhausted reverse osmosis membranes into value-added pyrolysis products and carbon dots. <i>Journal of Hazardous Materials</i> , 2021, 419, 126472.	6.5	23
38	Processing of flexible plastic packaging waste into pyrolysis oil and multi-walled carbon nanotubes for electrocatalytic oxygen reduction. <i>Journal of Hazardous Materials</i> , 2020, 387, 121256.	6.5	103
39	Environmental impact assessment of converting flexible packaging plastic waste to pyrolysis oil and multi-walled carbon nanotubes. <i>Journal of Hazardous Materials</i> , 2020, 390, 121449.	6.5	86
40	Barium aluminate improved iron ore for the chemical looping combustion of syngas. <i>Applied Energy</i> , 2020, 272, 115236.	5.1	29
41	Highly active and poison-tolerant nickel catalysts for tar reforming synthesized through controlled hydrothermal synthesis. <i>Applied Catalysis A: General</i> , 2020, 607, 117779.	2.2	7
42	Heteroatom doped carbon nanosheets from waste tires as electrode materials for electrocatalytic oxygen reduction reaction: Effect of synthesis techniques on properties and activity. <i>Carbon</i> , 2020, 167, 104-113.	5.4	25
43	Enhanced activation of peroxydisulfate by CuO decorated on hexagonal boron nitride for bisphenol A removal. <i>Chemical Engineering Journal</i> , 2020, 393, 124714.	6.6	55
44	Carbon based copper(II) phthalocyanine catalysts for electrochemical CO ₂ reduction: Effect of carbon support on electrocatalytic activity. <i>Carbon</i> , 2020, 168, 245-253.	5.4	53
45	In situ grown metallic nickel from Xâ€“Ni (X=La, Mg, Sr) oxides for converting plastics into carbon nanotubes: Influence of metalâ€“support interaction. <i>Journal of Cleaner Production</i> , 2020, 258, 120633.	4.6	58
46	Analytical assessment of tar generated during gasification of municipal solid waste: Distribution of GCâ€“MS detectable tar compounds, undetectable tar residues and inorganic impurities. <i>Fuel</i> , 2020, 268, 117348.	3.4	29
47	Regenerable Co-ZnO-based nanocomposites for high-temperature syngas desulfurization. <i>Fuel Processing Technology</i> , 2020, 201, 106344.	3.7	20
48	Cobalt and nitrogen co-doped porous carbon/carbon nanotube hybrids anchored with nickel nanoparticles as high-performance electrocatalysts for oxygen reduction reactions. <i>Nanoscale</i> , 2020, 12, 13028-13033.	2.8	29
49	Synthesis of CaCr ₂ O ₄ /carbon nanoplatelets from non-condensable pyrolysis gas of plastics for oxygen reduction reaction and charge storage. <i>Journal of Electroanalytical Chemistry</i> , 2019, 849, 113368.	1.9	18
50	Effects of sewage sludge organic and inorganic constituents on the properties of pyrolysis products. <i>Energy Conversion and Management</i> , 2019, 196, 1410-1419.	4.4	89
51	Insights into the speciation of heavy metals during pyrolysis of industrial sludge. <i>Science of the Total Environment</i> , 2019, 691, 232-242.	3.9	86
52	Thermodynamic analyses of synthetic natural gas production via municipal solid waste gasification, high-temperature water electrolysis and methanation. <i>Energy Conversion and Management</i> , 2019, 202, 112160.	4.4	46
53	A hot syngas purification system integrated with downdraft gasification of municipal solid waste. <i>Applied Energy</i> , 2019, 237, 227-240.	5.1	76
54	Nickel-based catalysts for steam reforming of naphthalene utilizing gasification slag from municipal solid waste as a support. <i>Fuel</i> , 2019, 254, 115561.	3.4	19

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55	Catalytically active nitrogen-doped porous carbon derived from biowastes for organics removal via peroxydisulfate activation. <i>Chemical Engineering Journal</i> , 2019, 374, 947-957.	6.6	82
56	Characteristics of incineration ash for sustainable treatment and reutilization. <i>Environmental Science and Pollution Research</i> , 2019, 26, 16974-16997.	2.7	113
57	Plastic derived carbon nanotubes for electrocatalytic oxygen reduction reaction: Effects of plastic feedstock and synthesis temperature. <i>Electrochemistry Communications</i> , 2019, 101, 11-18.	2.3	59
58	Insights into the single and binary adsorption of copper(II) and nickel(II) on hexagonal boron nitride: Performance and mechanistic studies. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 102872.	3.3	24
59	Sal wood sawdust derived highly mesoporous carbon as prospective electrode material for vanadium redox flow batteries. <i>Journal of Electroanalytical Chemistry</i> , 2019, 834, 94-100.	1.9	33
60	A novel real-time monitoring and control system for waste-to-energy gasification process employing differential temperature profiling of a downdraft gasifier. <i>Journal of Environmental Management</i> , 2019, 234, 65-74.	3.8	20
61	Poisoning effects of H ₂ S and HCl on the naphthalene steam reforming and water-gas shift activities of Ni and Fe catalysts. <i>Fuel</i> , 2019, 241, 1008-1018.	3.4	54
62	Pyrolysis derived char from municipal and industrial sludge: Impact of organic decomposition and inorganic accumulation on the fuel characteristics of char. <i>Waste Management</i> , 2019, 83, 131-141.	3.7	59
63	Distribution and modeling of tar compounds produced during downdraft gasification of municipal solid waste. <i>Renewable Energy</i> , 2019, 136, 1294-1303.	4.3	27
64	Fate and distribution of heavy metals during thermal processing of sewage sludge. <i>Fuel</i> , 2018, 226, 721-744.	3.4	203
65	Insights into the thermolytic transformation of lignocellulosic biomass waste to redox-active carbocatalyst: Durability of surface active sites. <i>Applied Catalysis B: Environmental</i> , 2018, 233, 120-129.	10.8	169
66	Catalytic activities and resistance to HCl poisoning of Ni-based catalysts during steam reforming of naphthalene. <i>Applied Catalysis A: General</i> , 2018, 557, 25-38.	2.2	29
67	Influence of surface morphology on the performance of nanostructured ZnO-loaded ceramic honeycomb for syngas desulfurization. <i>Fuel</i> , 2018, 211, 591-599.	3.4	35
68	Enhanced photocatalytic degradation of bisphenol A with Ag-decorated S-doped g-C ₃ N ₄ under solar irradiation: Performance and mechanistic studies. <i>Chemical Engineering Journal</i> , 2018, 333, 739-749.	6.6	209
69	Evaluation of Lighting Systems, Carbon Sources, and Bacteria Cultures on Photofermentative Hydrogen Production. <i>Applied Biochemistry and Biotechnology</i> , 2018, 185, 257-269.	1.4	22
70	Upgrading of non-condensable pyrolysis gas from mixed plastics through catalytic decomposition and dechlorination. <i>Fuel Processing Technology</i> , 2018, 170, 13-20.	3.7	59
71	Conversion of Spent Coffee Beans to Electrode Material for Vanadium Redox Flow Batteries. <i>Batteries</i> , 2018, 4, 56.	2.1	20
72	Catalytic processing of non-condensable pyrolysis gas from plastics: Effects of calcium supports on nickel-catalyzed decomposition of hydrocarbons and HCl sorption. <i>Chemical Engineering Science</i> , 2018, 189, 311-319.	1.9	32

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73	Ordered mesoporous Zn-based supported sorbent synthesized by a new method for high-efficiency desulfurization of hot coal gas. <i>Chemical Engineering Journal</i> , 2018, 353, 273-287.	6.6	33
74	Ni-Zn-based nanocomposite loaded on cordierite mullite ceramic for syngas desulfurization: Performance evaluation and regeneration studies. <i>Chemical Engineering Journal</i> , 2018, 351, 230-239.	6.6	36
75	Determination of urine-derived odorous compounds in a source separation sanitation system. <i>Journal of Environmental Sciences</i> , 2017, 52, 240-249.	3.2	5
76	Application of system dynamics modeling for evaluation of different recycling scenarios in Singapore. <i>Journal of Material Cycles and Waste Management</i> , 2017, 19, 1177-1185.	1.6	36
77	High-quality fuel from food waste – investigation of a stepwise process from the perspective of technology development. <i>Environmental Technology (United Kingdom)</i> , 2017, 38, 1735-1741.	1.2	3
78	Conversion of non-condensable pyrolysis gases from plastics into carbon nanomaterials: Effects of feedstock and temperature. <i>Journal of Analytical and Applied Pyrolysis</i> , 2017, 124, 16-24.	2.6	64
79	Multiple geophysical surveys for old landfill monitoring in Singapore. <i>Environmental Monitoring and Assessment</i> , 2017, 189, 20.	1.3	5
80	Optimization of micronutrient supplement for enhancing biogas production from food waste in two-phase thermophilic anaerobic digestion. <i>Waste Management</i> , 2017, 59, 465-475.	3.7	82
81	Insights for transformation of contaminants in leachate at a tropical landfill dominated by natural attenuation. <i>Waste Management</i> , 2016, 53, 105-115.	3.7	8
82	Characterization of Singapore RDF resources and analysis of their heating value. <i>Sustainable Environment Research</i> , 2016, 26, 51-54.	2.1	59
83	Effect of pretreatment techniques on food waste solubilization and biogas production during thermophilic batch anaerobic digestion. <i>Journal of Material Cycles and Waste Management</i> , 2016, 18, 222-230.	1.6	49
84	Air stripping process for ammonia recovery from source-separated urine: modeling and optimization. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 2208-2217.	1.6	83
85	Monitoring transitory profiles of leachate humic substances in landfill aeration reactors in mesophilic and thermophilic conditions. <i>Journal of Hazardous Materials</i> , 2015, 287, 342-348.	6.5	19
86	Influence of temperature on carbon and nitrogen dynamics during in situ aeration of aged waste in simulated landfill bioreactors. <i>Bioresource Technology</i> , 2015, 192, 149-156.	4.8	16
87	Products evolution during hydrothermal conversion of dewatered sewage sludge in sub- and near-critical water: Effects of reaction conditions and calcium oxide additive. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 5776-5787.	3.8	76
88	Mapping Refuse Profile in Singapore Old Dumping Ground through Electrical Resistivity, S-Wave Velocity and Geotechnical Monitoring. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2015, 94, 275-281.	1.3	3
89	Application of hydroponic systems for the treatment of source-separated human urine. <i>Ecological Engineering</i> , 2015, 81, 182-191.	1.6	39
90	Evaluation of hydrogen producing cultures using pretreated food waste. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 19337-19342.	3.8	36

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91	Hydrothermal gasification of sewage sludge and model compounds for renewable hydrogen production: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 39, 1127-1142.	8.2	207
92	EDTA-Enhanced Thermal Washing of Contaminated Dredged Marine Sediments for Heavy Metal Removal. <i>Water, Air, and Soil Pollution</i> , 2014, 225, 1.	1.1	12
93	Environmental life cycle assessment of different domestic wastewater streams: Policy effectiveness in a tropical urban environment. <i>Journal of Environmental Management</i> , 2014, 140, 60-68.	3.8	46
94	Conversion of sewage sludge to clean solid fuel using hydrothermal carbonization: Hydrochar fuel characteristics and combustion behavior. <i>Applied Energy</i> , 2013, 111, 257-266.	5.1	727
95	Characterization of induced struvite formation from source-separated urine using seawater and brine as magnesium sources. <i>Chemosphere</i> , 2013, 93, 2738-2747.	4.2	117
96	Removal of cytostatic drugs from aquatic environment: A review. <i>Science of the Total Environment</i> , 2013, 445-446, 281-298.	3.9	233
97	Comparative study of biohydrogen production by four dark fermentative bacteria. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 15686-15692.	3.8	32
98	Adaptation of urine source separation in tropical cities: Process optimization and odor mitigation. <i>Journal of the Air and Waste Management Association</i> , 2013, 63, 472-481.	0.9	32
99	Impact of vertical electrokinetic-flushing technology to remove heavy metals and polycyclic aromatic hydrocarbons from contaminated soil. <i>Electrochimica Acta</i> , 2012, 86, 72-79.	2.6	16
100	Adsorption of Cu(II) ions from aqueous solutions on biochars prepared from agricultural by-products. <i>Journal of Environmental Management</i> , 2012, 96, 35-42.	3.8	280
101	Reprint of: Electrochemical oxidation of stabilized landfill leachate on DSA electrodes. <i>Journal of Hazardous Materials</i> , 2012, 207-208, 73-78.	6.5	29
102	Evaluation of a sequential aerobic anaerobic treatment of municipal solid waste in a bioreactor landfill. <i>International Journal of Environmental Engineering</i> , 2011, 3, 336.	0.1	2
103	Electrochemical oxidation of stabilized landfill leachate on DSA electrodes. <i>Journal of Hazardous Materials</i> , 2011, 190, 460-465.	6.5	71
104	Application of sequential extraction analysis to electrokinetic remediation of cadmium, nickel and zinc from contaminated soils. <i>Journal of Hazardous Materials</i> , 2010, 184, 547-554.	6.5	80
105	Comparative studies of aerobic and anaerobic treatment of MSW organic fraction in landfill bioreactors. <i>Environmental Technology (United Kingdom)</i> , 2010, 31, 1381-1389.	1.2	31
106	Chelating agent-assisted electrokinetic removal of cadmium, lead and copper from contaminated soils. <i>Environmental Pollution</i> , 2009, 157, 3379-3386.	3.7	76
107	Transport of cadmium and assessment of phytotoxicity after electrokinetic remediation. <i>Journal of Environmental Management</i> , 2008, 86, 535-544.	3.8	18
108	Monitoring operational and leachate characteristics of an aerobic simulated landfill bioreactor. <i>Waste Management</i> , 2008, 28, 1346-1354.	3.7	65

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109	Electrochemical treatment of olive mill wastewater. Journal of Chemical Technology and Biotechnology, 2007, 82, 663-671.	1.6	77
110	Application of sodium dodecyl sulfate and humic acid as surfactants on electrokinetic remediation of cadmium-contaminated soil. Desalination, 2007, 211, 249-260.	4.0	67
111	Chelate Agents Enhanced Electrokinetic Remediation for Removal Cadmium and Zinc by Conditioning Catholyte pH. Water, Air, and Soil Pollution, 2006, 172, 295-312.	1.1	66
112	Washing enhanced electrokinetic remediation for removal cadmium from real contaminated soil. Journal of Hazardous Materials, 2005, 123, 165-175.	6.5	86
113	Effect of arsenic and mercury speciation on inhibition of respiration rate in activated sludge systems. Environmental Science and Pollution Research, 2003, 10, 177-182.	2.7	19