

# Ange Nzihou

## List of Publications by Year in descending order

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101  
papers

4,662  
citations

94433

37  
h-index

106344

65  
g-index

101  
all docs

101  
docs citations

101  
times ranked

4979  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of Biogas Utilisation, Purification and Upgrading Technologies. Waste and Biomass Valorization, 2017, 8, 267-283.	3.4	466
2	The fate of heavy metals during combustion and gasification of contaminated biomass – A brief review. Journal of Hazardous Materials, 2013, 256-257, 56-66.	12.4	205
3	A review of catalysts for the gasification of biomass char, with some reference to coal. Energy, 2013, 58, 305-317.	8.8	199
4	Life cycle assessment of pyrolysis, gasification and incineration waste-to-energy technologies: Theoretical analysis and case study of commercial plants. Science of the Total Environment, 2018, 626, 744-753.	8.0	190
5	The effect of temperature and heating rate on char properties obtained from solar pyrolysis of beech wood. Bioresource Technology, 2015, 182, 114-119.	9.6	134
6	Synthetic fuels from biomass using concentrated solar energy – A review. Energy, 2012, 42, 121-131.	8.8	132
7	Comparison of waste-to-energy technologies of gasification and incineration using life cycle assessment: Case studies in Finland, France and China. Journal of Cleaner Production, 2018, 203, 287-300.	9.3	127
8	Hydroxyapatite supported bimetallic cobalt and nickel catalysts for syngas production from dry reforming of methane. Applied Catalysis B: Environmental, 2018, 224, 310-321.	20.2	121
9	Catalyst Properties and Catalytic Performance of Char from Biomass Gasification. Industrial & Engineering Chemistry Research, 2012, 51, 13113-13122.	3.7	117
10	Influence of char composition and inorganics on catalytic activity of char from biomass gasification. Fuel, 2015, 157, 37-47.	6.4	115
11	The catalytic effect of inherent and adsorbed metals on the fast/flash pyrolysis of biomass: A review. Energy, 2019, 170, 326-337.	8.8	112
12	Co-pyrolysis of wood and plastics: Influence of plastic type and content on product yield, gas composition and quality. Fuel, 2018, 231, 110-117.	6.4	110
13	Hydrochar derived from municipal sludge through hydrothermal processing: A critical review on its formation, characterization, and valorization. Water Research, 2021, 199, 117186.	11.3	106
14	Role of Phosphate in the Remediation and Reuse of Heavy Metal Polluted Wastes and Sites. Waste and Biomass Valorization, 2010, 1, 163-174.	3.4	103
15	Stress relaxation behavior of organically modified montmorillonite filled natural rubber/nitrile rubber nanocomposites. Applied Clay Science, 2014, 87, 120-128.	5.2	100
16	Effect of Operating Parameters and Moisture Content on Municipal Solid Waste Pyrolysis and Gasification. Energy & Fuels, 2016, 30, 3994-4001.	5.1	93
17	Characterization of solar fuels obtained from beech wood solar pyrolysis. Fuel, 2017, 188, 285-293.	6.4	93
18	H <sub>2</sub> S removal from syngas using wastes pyrolysis chars. Chemical Engineering Journal, 2018, 334, 2179-2189.	12.7	90

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19	Calcium phosphate stabilization of fly ash with chloride extraction. <i>Waste Management</i> , 2002, 22, 235-239.	7.4	78
20	Partitioning of Heavy Metals in Municipal Solid Waste Pyrolysis, Gasification, and Incineration. <i>Energy &amp; Fuels</i> , 2015, 29, 7516-7525.	5.1	74
21	Dioxin emissions from municipal solid waste incinerators (MSWIs) in France. <i>Waste Management</i> , 2012, 32, 2273-2277.	7.4	71
22	Phosphorus recovery from municipal sludge-derived ash and hydrochar through wet-chemical technology: A review towards sustainable waste management. <i>Chemical Engineering Journal</i> , 2021, 417, 129300.	12.7	71
23	Synthesis of calcium hydroxyapatite from calcium carbonate and different orthophosphate sources: A comparative study. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2012, 177, 1080-1089.	3.5	60
24	Current Status and Outlook of Odor Removal Technologies in Wastewater Treatment Plant. <i>Waste and Biomass Valorization</i> , 2019, 10, 1443-1458.	3.4	54
25	Effect of the Support and Its Surface Modifications in Cobalt-Based Fischer-Tropsch Synthesis. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 16137-16161.	3.7	53
26	Solar pyrolysis of cotton stalk in molten salt for bio-fuel production. <i>Energy</i> , 2019, 179, 1124-1132.	8.8	53
27	Kinetic Analysis of Tropical Lignocellulosic Agrowaste Pyrolysis. <i>Bioenergy Research</i> , 2017, 10, 832-845.	3.9	50
28	Reactivity and deactivation mechanisms of pyrolysis chars from bio-waste during catalytic cracking of tar. <i>Applied Energy</i> , 2019, 237, 487-499.	10.1	50
29	Environmental and exergetic life cycle assessment of incineration- and gasification-based waste to energy systems in China. <i>Energy</i> , 2020, 205, 118002.	8.8	48
30	Cobalt catalysts on carbon-based materials for Fischer-Tropsch synthesis: a review. <i>Applied Catalysis A: General</i> , 2021, 609, 117906.	4.3	48
31	Preparation of high specific surface area hydroxyapatite for environmental applications. <i>Journal of Materials Science</i> , 2007, 42, 6062-6066.	3.7	47
32	Hydroxyapatite gel for the improved removal of Pb <sup>2+</sup> ions from aqueous solution. <i>Chemical Engineering Journal</i> , 2013, 232, 128-138.	12.7	46
33	Stabilisation of heavy metal containing dusts by reaction with phosphoric acid: study of the reactivity of fly ash. <i>Journal of Hazardous Materials</i> , 2004, 116, 65-74.	12.4	44
34	Multi-scale characterisation of chars mineral species for tar cracking. <i>Fuel</i> , 2017, 189, 88-97.	6.4	43
35	The effects of temperature and molten salt on solar pyrolysis of lignite. <i>Energy</i> , 2019, 181, 407-416.	8.8	43
36	Reactivity enhancement of gasification biochars for catalytic applications. <i>Fuel</i> , 2015, 159, 491-499.	6.4	40

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37	Convenient conversion of calcium carbonate to hydroxyapatite at ambient pressure. <i>Materials Science and Engineering C</i> , 2009, 29, 771-773.	7.3	39
38	Hydroxyapatite starting from calcium carbonate and orthophosphoric acid: synthesis, characterization, and applications. <i>Journal of Materials Science</i> , 2014, 49, 4261-4269.	3.7	37
39	Characterization of char generated from solar pyrolysis of heavy metal contaminated biomass. <i>Energy</i> , 2020, 206, 118128.	8.8	36
40	One-Step Synthesis of Calcium Hydroxyapatite from Calcium Carbonate and Orthophosphoric Acid under Moderate Conditions. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 1439-1447.	3.7	35
41	Highly-efficient hydroxyapatite-supported nickel catalysts for dry reforming of methane. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 18502-18518.	7.1	35
42	Molten salt pyrolysis of biomass: The evaluation of molten salt. <i>Fuel</i> , 2021, 302, 121103.	6.4	34
43	Toward the Valorization of Waste and Biomass. <i>Waste and Biomass Valorization</i> , 2010, 1, 3-7.	3.4	33
44	Calcium phosphate based materials starting from calcium carbonate and orthophosphoric acid for the removal of lead(II) from an aqueous solution. <i>Chemical Engineering Journal</i> , 2014, 243, 280-288.	12.7	33
45	Catalytic transformation of carbon dioxide and methane into syngas over ruthenium and platinum supported hydroxyapatites. <i>Applied Surface Science</i> , 2016, 390, 141-156.	6.1	33
46	Hydrogen-Rich Gas Production from Steam Gasification of Bio-char in the Presence of CaO. <i>Waste and Biomass Valorization</i> , 2017, 8, 2735-2746.	3.4	32
47	Sustainable management of plastic wastes in COVID-19 pandemic: The biochar solution. <i>Environmental Research</i> , 2022, 212, 113495.	7.5	31
48	Apatitic calcium phosphates: Synthesis, characterization and reactivity in the removal of lead(II) from aqueous solution. <i>Chemical Engineering Journal</i> , 2012, 198-199, 180-190.	12.7	30
49	Catalytic cracking of ethylbenzene as tar surrogate using pyrolysis chars from wastes. <i>Biomass and Bioenergy</i> , 2018, 117, 86-95.	5.7	27
50	Solar pyrolysis of heavy metal contaminated biomass for gas fuel production. <i>Energy</i> , 2019, 187, 116016.	8.8	27
51	Laboratory-scale investigation of the removal of hydrogen sulfide from biogas and air using industrial waste-based sorbents. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 1809-1820.	6.7	26
52	Waterworks Sludge: An Underrated Material for Beneficial Reuse in Water and Environmental Engineering. <i>Waste and Biomass Valorization</i> , 2021, 12, 4239-4251.	3.4	26
53	Effect of Nickel Impregnation on Wood Gasification Mechanism. <i>Waste and Biomass Valorization</i> , 2017, 8, 2843-2852.	3.4	25
54	Upgrading greenhouse gases (methane and carbon dioxide) into syngas using nickel-based catalysts. <i>Fuel</i> , 2018, 226, 195-203.	6.4	25

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55	Steam gasification behavior of tropical agrowaste: A new modeling approach based on the inorganic composition. <i>Fuel</i> , 2019, 235, 45-53.	6.4	25
56	Hydrogen Spillover in the Fischer-Tropsch Synthesis on Carbon-supported Cobalt Catalysts. <i>ChemCatChem</i> , 2020, 12, 1117-1128.	3.7	25
57	Alum sludge as an efficient sorbent for hydrogen sulfide removal: Experimental, mechanisms and modeling studies. <i>Chemosphere</i> , 2020, 248, 126010.	8.2	24
58	Trapping heavy metals by using calcium hydroxyapatite and dielectrophoresis. <i>Journal of Hazardous Materials</i> , 2007, 139, 461-466.	12.4	21
59	Carbonate-containing apatite (CAP) synthesis under moderate conditions starting from calcium carbonate and orthophosphoric acid. <i>Materials Science and Engineering C</i> , 2013, 33, 2971-2980.	7.3	21
60	Calcium Phosphate Sorbent for Environmental Application. <i>Procedia Engineering</i> , 2014, 83, 423-431.	1.2	21
61	Advanced characterization unravels the structure and reactivity of wood-based chars. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 130, 79-89.	5.5	20
62	Catalytic Effect of Inorganic Elements on Steam Gasification Biochar Properties from Agrowastes. <i>Energy &amp; Fuels</i> , 2019, 33, 8666-8675.	5.1	20
63	Thermal behavior of apatitic calcium phosphates synthesized from calcium carbonate and orthophosphoric acid or potassium dihydrogen orthophosphate. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 112, 1145-1155.	3.6	18
64	Modification of Hydroxyapatite with Ion-Selective Complexants: 1-Hydroxyethane-1,1-diphosphonic Acid. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 585-596.	3.7	17
65	Beyond confinement effects in Fischer-Tropsch Co/CNT catalysts. <i>Journal of Catalysis</i> , 2021, 397, 156-171.	6.2	17
66	Sorption behavior of Zn(II) ions on synthetic apatitic calcium phosphates. <i>Applied Surface Science</i> , 2015, 357, 1958-1966.	6.1	16
67	Hydroxyapatite as a new support material for cobalt-based catalysts in Fischer-Tropsch synthesis. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 18440-18451.	7.1	16
68	Waste Valorization, Loop-Closing, and Industrial Ecology. <i>Journal of Industrial Ecology</i> , 2010, 14, 196-199.	5.5	15
69	Synthesis, characterization, and thermo-mechanical properties of copper-loaded apatitic calcium phosphates. <i>Composite Interfaces</i> , 2013, 20, 647-660.	2.3	14
70	A Comparative Study of Hydroxyapatite and Alumina-Based Catalysts in Dry Reforming of Methane. <i>Chemical Engineering and Technology</i> , 2020, 43, 698-704.	1.5	14
71	Influence of Nickel on Biomass Pyro-Gasification: Coupled Thermodynamic and Experimental Investigations. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 9788-9797.	3.7	13
72	Gas Barrier, Rheological and Mechanical Properties of Immiscible Natural Rubber/Acrylonitrile Butadiene Rubber/Organoclay (NR/NBR/Organoclay) Blend Nanocomposites. <i>Materials</i> , 2020, 13, 2654.	2.9	13

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73	Simultaneous hydrogen sulfide removal and wastewater purification in a novel alum sludge-based odor-gas aerated biofilter. <i>Chemical Engineering Journal</i> , 2021, 419, 129558.	12.7	13
74	Incorporating hydrothermal liquefaction into wastewater treatment – Part I: Process optimization for energy recovery and evaluation of product distribution. <i>Chemical Engineering Journal</i> , 2022, 449, 137838.	12.7	12
75	Novel one-step synthesis and characterization of bone-like carbonated apatite from calcium carbonate, calcium hydroxide and orthophosphoric acid as economical starting materials. <i>Materials Research Bulletin</i> , 2014, 51, 236-243.	5.2	11
76	Hydrogen production from biogas: Process optimization using ASPEN Plus®. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 42027-42039.	7.1	11
77	Laboratory scale study of an industrial phosphate and thermal treatment for polluted dredged sediments. <i>International Journal of Sediment Research</i> , 2012, 27, 538-546.	3.5	10
78	Valorization of Calcium Carbonate-Based Solid Wastes for the Treatment of Hydrogen Sulfide from the Gas Phase. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 4915-4922.	3.7	10
79	Hydroxyapatite-based sorbents: elaboration, characterization and application for the removal of catechol from the aqueous phase. <i>Environmental Technology (United Kingdom)</i> , 2017, 38, 2611-2620.	2.2	10
80	Beneficial Use of Ash and Char From Biomass Gasification. , 2011, , .		9
81	Precipitation Process of Calcium Phosphate from Calcium Carbonate Suspension. <i>KONA Powder and Particle Journal</i> , 2016, 33, 219-227.	1.7	9
82	Integrating alum sludge with waste-activated sludge in co-conditioning and dewatering: a case study of a city in south France. <i>Environmental Science and Pollution Research</i> , 2020, 27, 14863-14871.	5.3	9
83	Characterization of Steam Gasification Biochars from Lignocellulosic Agrowaste Towards Soil Applications. <i>Waste and Biomass Valorization</i> , 2021, 12, 4141-4155.	3.4	9
84	Highly Porous Calcium Hydroxyapatite-based Composites for Air Pollution Control. <i>Procedia Engineering</i> , 2014, 83, 394-402.	1.2	8
85	Carbonated hydroxyapatite starting from calcite and different orthophosphates under moderate hydrothermal conditions: Synthesis and surface reactivity in simulated body fluid. <i>Materials Research Bulletin</i> , 2014, 60, 292-299.	5.2	8
86	Synthesis of carbon nanotubes/hydroxyapatite composites using catalytic methane cracking. <i>Composite Interfaces</i> , 2015, 22, 673-687.	2.3	8
87	Behavior of heavy metals during gasification of phytoextraction plants: thermochemical modelling. <i>Computer Aided Chemical Engineering</i> , 2015, , 341-346.	0.5	8
88	The X-ray, Raman and TEM Signatures of Cellulose-Derived Carbons Explained. <i>Journal of Carbon Research</i> , 2022, 8, 4.	2.7	8
89	On the relevance of thermodynamics to predict the behaviour of inorganics during CO <sub>2</sub> gasification of willow wood. <i>Computer Aided Chemical Engineering</i> , 2017, , 2671-2676.	0.5	5
90	<i>110th Anniversary</i>: Syngas Production Enhancement Using Calcium- and Potassium-Impregnated Chars. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 15134-15141.	3.7	5

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91	Unraveled mechanisms in energy production from bioresources using steam gasification. Fuel, 2021, 287, 119527.	6.4	5
92	Rheological Behavior of Gypsum, Plaster, and Hydroxyapatite Gel Blends. Industrial & Engineering Chemistry Research, 2012, 51, 11163-11169.	3.7	4
93	Metal-doped apatitic calcium phosphates: preparation, characterization, and reactivity in the removal of hydrogen sulfide from gas phase. Composite Interfaces, 2015, 22, 503-515.	2.3	4
94	Catalytic Pyrolysis of Waste Engine Oil over Y Zeolite Synthesized from Natural Clay. Waste and Biomass Valorization, 2021, 12, 4157-4170.	3.4	3
95	Generic and Advanced Characterization Techniques. , 2020, , 31-497.		2
96	Life cycle environmental assessment of thermal waste-to-energy technologies and energyâ€environmentâ€economy model development. , 2020, , 111-151.		1
97	Sodium Dihydrogen Phosphate Starting From Sodium Chloride and Orthophosphoric Acid Via Cation Resin Exchange. Phosphorus, Sulfur and Silicon and the Related Elements, 2015, 190, 1743-1748.	1.6	0
98	Accumulators for the Capture of Heavy Metals in Thermal Conversion Systems. Journal of Environmental Engineering, ASCE, 2018, 144, 04018118.	1.4	0
99	Facile Oneâ€Step Synthesis of Calcium Phosphate/Cellulose Composite: Synthesis, Morphology, Structure and Properties. Macromolecular Symposia, 2021, 398, 2000264.	0.7	0
100	Solid Residues (Biochar, Bottom Ash, Fly Ash, â€). , 2020, , 1307-1387.		0
101	Extraction and Characterization of Nanomaterials from Agrowaste. , 2020, , 841-897.		0