

Jean-Philippe Tessonnier

List of Publications by Year in descending order

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61857

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93
all docs

93
docs citations

93
times ranked

7657
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Progress on the Growth Mechanism of Carbon Nanotubes: A Review. <i>ChemSusChem</i> , 2011, 4, 824-847.	3.6	331
2	Analysis of the structure and chemical properties of some commercial carbon nanostructures. <i>Carbon</i> , 2009, 47, 1779-1798.	5.4	311
3	Pd nanoparticles introduced inside multi-walled carbon nanotubes for selective hydrogenation of cinnamaldehyde into hydrocinnamaldehyde. <i>Applied Catalysis A: General</i> , 2005, 288, 203-210.	2.2	258
4	Mechanisms of Furfural Reduction on Metal Electrodes: Distinguishing Pathways for Selective Hydrogenation of Bioderived Oxygenates. <i>Journal of the American Chemical Society</i> , 2017, 139, 14120-14128.	6.6	212
5	Selective Deposition of Metal Nanoparticles Inside or Outside Multiwalled Carbon Nanotubes. <i>ACS Nano</i> , 2009, 3, 2081-2089.	7.3	175
6	Characterizing Graphitic Carbon with X-ray Photoelectron Spectroscopy: A Step-by-Step Approach. <i>ChemCatChem</i> , 2015, 7, 2871-2881.	1.8	174
7	Methane dehydro-aromatization on Mo/ZSM-5: About the hidden role of Brønsted acid sites. <i>Applied Catalysis A: General</i> , 2008, 336, 79-88.	2.2	151
8	Selective Base-Catalyzed Isomerization of Glucose to Fructose. <i>ACS Catalysis</i> , 2014, 4, 4295-4298.	5.5	150
9	Interfacial charge distributions in carbon-supported palladium catalysts. <i>Nature Communications</i> , 2017, 8, 340.	5.8	145
10	Kinetic and Mechanistic Study of Glucose Isomerization Using Homogeneous Organic Brønsted Base Catalysts in Water. <i>ACS Catalysis</i> , 2015, 5, 3162-3173.	5.5	144
11	Nanostructured Manganese Oxide Supported on Carbon Nanotubes for Electrocatalytic Water Splitting. <i>ChemCatChem</i> , 2012, 4, 851-862.	1.8	141
12	Synthesis and catalytic uses of carbon and silicon carbide nanostructures. <i>Catalysis Today</i> , 2002, 76, 11-32.	2.2	138
13	CNFs@CNTs: Superior Carbon for Electrochemical Energy Storage. <i>Advanced Materials</i> , 2008, 20, 1450-1455.	11.1	135
14	Mesoporous carbon nanotubes for use as support in catalysis and as nanosized reactors for one-dimensional inorganic material synthesis. <i>Applied Catalysis A: General</i> , 2003, 254, 345-363.	2.2	117
15	Dissolved Carbon Controls the Initial Stages of Nanocarbon Growth. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 3313-3317.	7.2	117
16	Defect-Mediated Functionalization of Carbon Nanotubes as a Route to Design Single-Site Basic Heterogeneous Catalysts for Biomass Conversion. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 6543-6546.	7.2	116
17	Combining Metabolic Engineering and Electrocatalysis: Application to the Production of Polyamides from Sugar. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 2368-2373.	7.2	112
18	Fe and Pt carbon nanotubes for the electrocatalytic conversion of carbon dioxide to oxygenates. <i>Catalysis Today</i> , 2009, 143, 57-63.	2.2	107

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19	Elucidating the effect of desilication on aluminum-rich ZSM-5 zeolite and its consequences on biomass catalytic fast pyrolysis. <i>Applied Catalysis A: General</i> , 2017, 529, 68-78.	2.2	105
20	Structure, Stability, and Electronic Interactions of Polyoxometalates on Functionalized Graphene Sheets. <i>Langmuir</i> , 2013, 29, 393-402.	1.6	104
21	ZSM-5 Coatings on γ -SiC Monoliths: Possible New Structured Catalyst for the Methanol-to-Olefins Process. <i>Journal of Physical Chemistry C</i> , 2007, 111, 4368-4374.	1.5	101
22	Quantitative Measurement of the Brønsted Acid Sites in Solid Acids: Toward a Single-Site Design of Mo-Modified ZSM-5 Zeolite. <i>Journal of Physical Chemistry B</i> , 2006, 110, 10390-10395.	1.2	100
23	Selective Glucose Isomerization to Fructose via a Nitrogen-doped Solid Base Catalyst Derived from Spent Coffee Grounds. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 16113-16120.	3.2	86
24	Improving Hydrothermal Stability of Supported Metal Catalysts for Biomass Conversions: A Review. <i>ACS Catalysis</i> , 2021, 11, 5248-5270.	5.5	86
25	Cathodic Corrosion of Metal Electrodes—How to Prevent It in Electroorganic Synthesis. <i>Chemical Reviews</i> , 2021, 121, 10241-10270.	23.0	83
26	Highly dispersed iron oxide nanoclusters supported on ordered mesoporous SBA-15: A very active catalyst for Friedel-Crafts alkylations. <i>Applied Catalysis A: General</i> , 2006, 300, 1-7.	2.2	81
27	Electrochemical Conversion of Muconic Acid to Biobased Diacid Monomers. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 3575-3585.	3.2	81
28	Ga doped SBA-15 as an active and stable catalyst for Friedel-Crafts liquid-phase acylation. <i>Applied Catalysis A: General</i> , 2006, 298, 194-202.	2.2	77
29	Active coke: Carbonaceous materials as catalysts for alkane dehydrogenation. <i>Journal of Catalysis</i> , 2010, 269, 329-339.	3.1	74
30	Insights into the Hydrothermal Stability of ZSM-5 under Relevant Biomass Conversion Reaction Conditions. <i>ACS Catalysis</i> , 2015, 5, 4418-4422.	5.5	72
31	Dispersion of Alkyl-Chain-Functionalized Reduced Graphene Oxide Sheets in Nonpolar Solvents. <i>Langmuir</i> , 2012, 28, 6691-6697.	1.6	67
32	Effective Dispersion of MgO Nanostructure on Biochar Support as a Basic Catalyst for Glucose Isomerization. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 6990-7001.	3.2	63
33	Spinel-Type Cobalt-Manganese-Based Mixed Oxide as Sacrificial Catalyst for the High-Yield Production of Homogeneous Carbon Nanotubes. <i>ChemCatChem</i> , 2010, 2, 1559-1561.	1.8	60
34	Tailoring ZSM-5 Zeolites for the Fast Pyrolysis of Biomass to Aromatic Hydrocarbons. <i>ChemSusChem</i> , 2016, 9, 1473-1482.	3.6	60
35	Amino-functionalized carbon nanotubes as solid basic catalysts for the transesterification of triglycerides. <i>Chemical Communications</i> , 2009, , 4405.	2.2	57
36	cis,cis-Muconic acid isomerization and catalytic conversion to biobased cyclic-C ₆ -1,4-diacid monomers. <i>Green Chemistry</i> , 2017, 19, 3042-3050.	4.6	55

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37	Transesterification of Triglycerides Using Nitrogen-Functionalized Carbon Nanotubes. <i>ChemSusChem</i> , 2010, 3, 241-245.	3.6	53
38	Thermal Stability of Aluminum-Rich ZSM-5 Zeolites and Consequences on Aromatization Reactions. <i>Journal of Physical Chemistry C</i> , 2016, 120, 20103-20113.	1.5	53
39	Comparative investigation of homogeneous and heterogeneous Brønsted base catalysts for the isomerization of glucose to fructose in aqueous media. <i>Applied Catalysis B: Environmental</i> , 2020, 261, 118126.	10.8	52
40	New Insights from Microcalorimetry on the FeOx/CNT-Based Electrocatalysts Active in the Conversion of CO ₂ to Fuels. <i>ChemSusChem</i> , 2012, 5, 577-586.	3.6	49
41	Design of MFI Zeolite-Based Composites with Hierarchical Pore Structure: A New Generation of Structured Catalysts. <i>Crystal Growth and Design</i> , 2009, 9, 3721-3729.	1.4	47
42	Influence of the microstructure of carbon nanotubes on the oxidative dehydrogenation of ethylbenzene to styrene. <i>Catalysis Today</i> , 2010, 150, 49-54.	2.2	46
43	Electrochemical Conversion of Biologically Produced Muconic Acid: Key Considerations for Scale-Up and Corresponding Technoeconomic Analysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 7098-7109.	3.2	45
44	Labeling and monitoring the distribution of anchoring sites on functionalized CNTs by atomic layer deposition. <i>Journal of Materials Chemistry</i> , 2012, 22, 7323.	6.7	44
45	The role of mechanically induced defects in carbon nanotubes to modify the properties of electrodes for PEM fuel cell. <i>Catalysis Today</i> , 2009, 147, 287-299.	2.2	43
46	Conversion of methoxy and hydroxyl functionalities of phenolic monomers over zeolites. <i>Green Chemistry</i> , 2016, 18, 2231-2239.	4.6	43
47	Optimizing the synthesis of cobalt-based catalysts for the selective growth of multiwalled carbon nanotubes under industrially relevant conditions. <i>Carbon</i> , 2011, 49, 5253-5264.	5.4	41
48	Beta zeolite supported on a β -SiC foam monolith: A diffusionless catalyst for fixed-bed Friedel-Crafts reactions. <i>Journal of Molecular Catalysis A</i> , 2006, 248, 113-120.	4.8	40
49	Synthesis of a carbon nanotube monolith with controlled macroscopic shape. <i>Carbon</i> , 2006, 44, 2587-2589.	5.4	39
50	One-pot synthesis of Ga-SBA-15: Activity comparison with Ga-post-treated SBA-15 catalysts. <i>Applied Catalysis A: General</i> , 2007, 316, 219-225.	2.2	39
51	Synthesis of zeolite crystals with unusual morphology: Application in acid catalysis. <i>Applied Catalysis A: General</i> , 2010, 390, 102-109.	2.2	39
52	Gas sensing properties and p-type response of ALD TiO ₂ -coated carbon nanotubes. <i>Nanotechnology</i> , 2015, 26, 024004.	1.3	39
53	Understanding the Dielectric Properties of Heat-Treated Carbon Nanofibers at Terahertz Frequencies: a New Perspective on the Catalytic Activity of Structured Carbonaceous Materials. <i>Journal of Physical Chemistry C</i> , 2009, 113, 10554-10559.	1.5	33
54	The Use of Terahertz Spectroscopy as a Sensitive Probe in Discriminating the Electronic Properties of Structurally Similar Multi-Walled Carbon Nanotubes. <i>Advanced Materials</i> , 2009, 21, 3953-3957.	11.1	32

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55	Influence of the graphitisation of hollow carbon nanofibers on their functionalisation and subsequent filling with metal nanoparticles. <i>Chemical Communications</i> , 2009, , 7158.	2.2	31
56	Structure and properties of a Mo oxide catalyst supported on hollow carbon nanofibers in selective propene oxidation. <i>Journal of Catalysis</i> , 2010, 271, 305-314.	3.1	28
57	The effect of alumina on FCC catalyst in the presence of nickel and vanadium. <i>Applied Catalysis A: General</i> , 2010, 388, 15-21.	2.2	28
58	BETA zeolite nanowire synthesis under non-hydrothermal conditions using carbon nanotubes as template. <i>Carbon</i> , 2004, 42, 1941-1946.	5.4	27
59	Decoupling the Role of External Mass Transfer and Intracrystalline Pore Diffusion on the Selectivity of HZSM-5 for the Catalytic Fast Pyrolysis of Biomass. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 8766-8776.	3.2	27
60	Functional carbons and carbon nanohybrids for the catalytic conversion of biomass to renewable chemicals in the condensed phase. <i>Chinese Journal of Catalysis</i> , 2014, 35, 842-855.	6.9	26
61	A new selective route towards benzoic acid and derivatives from biomass-derived coumalic acid. <i>Green Chemistry</i> , 2017, 19, 4879-4888.	4.6	26
62	Combining Metabolic Engineering and Electrocatalysis: Application to the Production of Polyamides from Sugar. <i>Angewandte Chemie</i> , 2016, 128, 2414-2419.	1.6	24
63	Mesoporous ZSM-5 Zeolites in Acid Catalysis: Top-Down vs. Bottom-Up Approach. <i>Catalysts</i> , 2017, 7, 225.	1.6	22
64	Oxygen-Doped Carbon Supports Modulate the Hydrogenation Activity of Palladium Nanoparticles through Electronic Metal-Support Interactions. <i>ACS Catalysis</i> , 2022, 12, 7344-7356.	5.5	22
65	Solvent-driven isomerization of <i>cis</i> -muconic acid for the production of specialty and performance-advantaged cyclic biobased monomers. <i>Green Chemistry</i> , 2020, 22, 6444-6454.	4.6	17
66	Comparative study of the solvolytic deconstruction of corn stover lignin in batch and flow-through reactors. <i>Green Chemistry</i> , 2021, 23, 7731-7742.	4.6	17
67	SiO ₂ /SiC supports with tailored thermal conductivity to reveal the effect of surface temperature on Ru-catalyzed CO ₂ methanation. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119904.	10.8	16
68	Beta zeolite supported on silicon carbide for Friedel-Crafts fixed-bed reactions Electronic supplementary information (ESI) available: Temperature-pressure oxidation spectra and mechanism of phenyl benzoate formation without the participation of phenol. See http://www.rsc.org/suppdata/cc/b2/b209858/jl . <i>Chemical Communications</i> , 2003, , 530-531.	2.2	15
69	Green catalysis for production of chemicals and CO-free hydrogen. <i>Catalysis Communications</i> , 2007, 8, 1787-1792.	1.6	15
70	Electrochemical hydrogenation of bioprivileged <i>cis</i> -muconic acid to <i>trans</i> -3-hexenedioic acid: from lab synthesis to bench-scale production and beyond. <i>Green Chemistry</i> , 2021, 23, 6456-6468.	4.6	15
71	Carbon nanotubes: a highly selective support for the C=C bond hydrogenation reaction. <i>Studies in Surface Science and Catalysis</i> , 2000, 143, 697-704.	1.5	14
72	Tin Dioxide-Carbon Heterostructures Applied to Gas Sensing: Structure-Dependent Properties and General Sensing Mechanism. <i>Journal of Physical Chemistry C</i> , 0, , 130916143757006.	1.5	14

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73	Palladium catalysts supported on N-functionalized hollow vapor-grown carbon nanofibers: The effect of the basic support and catalyst reduction temperature. <i>Applied Catalysis A: General</i> , 2011, 408, 137-147.	2.2	12
74	Engineered Nitrogen-Decorated Carbon Networks for the Metal-Free Catalytic Isomerization of Glucose to Fructose. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 16959-16963.	3.2	12
75	Analysis of the Amorphous and Interphase Influence of Comonomer Loading on Polymer Properties toward Forwarding Bioadvantaged Copolyamides. <i>Macromolecules</i> , 2021, 54, 7910-7924.	2.2	11
76	Synthesis and characterization of vanadium species coated on alumina, magnesium oxide and hydrotalcite supports to SOx removal. <i>Applied Catalysis A: General</i> , 2013, 462-463, 46-55.	2.2	10
77	Kinetics, Reaction Orders, Rate Laws, and Their Relation to Mechanisms: A Hands-On Introduction for High School Students Using Portable Spectrophotometry. <i>Journal of Chemical Education</i> , 2016, 93, 172-174.	1.1	8
78	Bioenabled Platform to Access Polyamides with Built-In Target Properties. <i>Journal of the American Chemical Society</i> , 2022, 144, 9548-9553.	6.6	7
79	Bioadvantaged Nylon from Renewable Muconic Acid: Synthesis, Characterization, and Properties. <i>ACS Symposium Series</i> , 2018, , 355-367.	0.5	6
80	Polyoxometalate Clusters Supported on Functionalized Graphene Sheets as Nanohybrids for the Catalytic Combustion of Liquid Fuels. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1451, 137-143.	0.1	5
81	Comments on "Thermodynamics of cis,cis-muconic acid solubility in various polar solvents at low temperature range". <i>Journal of Molecular Liquids</i> , 2016, 224, 420-422.	2.3	5
82	MOx/CNTs Hetero-Structures for Gas Sensing Applications: Role of CNTs Defects. <i>Procedia Engineering</i> , 2012, 47, 1259-1262.	1.2	4
83	Hydrogenation/Hydrodeoxygenation Selectivity Modulation by Cometal Addition to Palladium on Carbon-Coated Supports. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 7759-7771.	3.2	4
84	Effect of the carbon nanotube basicity in Pd/N-CNT catalysts on the synthesis of R-1-phenyl ethyl acetate. <i>Studies in Surface Science and Catalysis</i> , 2010, , 283-287.	1.5	3
85	Untangling the electronic properties in highly similar multi-walled carbon nanotubes by terahertz spectroscopy. , 2009, , .		1
86	Titelbild: Combining Metabolic Engineering and Electrocatalysis: Application to the Production of Polyamides from Sugar (<i>Angew. Chem.</i> 7/2016). <i>Angewandte Chemie</i> , 2016, 128, 2317-2317.	1.6	1
87	Nitrogen-Doped Carbon Composites as Metal-Free Catalysts. , 2016, , 273-311.		0
88	Bottom-Up Synthesis Strategies Enabling the Investigation of Metal Catalyst-Carbon Support Interactions. <i>Journal of Carbon Research</i> , 2022, 8, 37.	1.4	0