Jean-Philippe Tessonnier

List of Publications by Year
in descending order

88	5,731	61984 43	76900 74
papers	citations	h-index	g-index

93	93	93	7657
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Recent Progress on the Growth Mechanism of Carbon Nanotubes: A Review. ChemSusChem, 2011, 4, 824-847.	6.8	331
2	Analysis of the structure and chemical properties of some commercial carbon nanostructures. Carbon, 2009, 47, 1779-1798.	10.3	311
3	Pd nanoparticles introduced inside multi-walled carbon nanotubes for selective hydrogenation of cinnamaldehyde into hydrocinnamaldehyde. Applied Catalysis A: General, 2005, 288, 203-210.	4.3	258
4	Mechanisms of Furfural Reduction on Metal Electrodes: Distinguishing Pathways for Selective Hydrogenation of Bioderived Oxygenates. Journal of the American Chemical Society, 2017, 139, 14120-14128.	13.7	212
5	Selective Deposition of Metal Nanoparticles Inside or Outside Multiwalled Carbon Nanotubes. ACS Nano, 2009, 3, 2081-2089.	14.6	175
6	Characterizing Graphitic Carbon with Xâ€ray Photoelectron Spectroscopy: A Stepâ€byâ€Step Approach. ChemCatChem, 2015, 7, 2871-2881.	3.7	174
7	Methane dehydro-aromatization on Mo/ZSM-5: About the hidden role of BrÃ¸nsted acid sites. Applied Catalysis A: General, 2008, 336, 79-88.	4.3	151
8	Selective Base-Catalyzed Isomerization of Glucose to Fructose. ACS Catalysis, 2014, 4, 4295-4298.	11.2	150
9	Interfacial charge distributions in carbon-supported palladium catalysts. Nature Communications, 2017, 8, 340.	12.8	145
10	Kinetic and Mechanistic Study of Glucose Isomerization Using Homogeneous Organic BrÃ¸nsted Base Catalysts in Water. ACS Catalysis, 2015, 5, 3162-3173.	11.2	144
11	Nanostructured Manganese Oxide Supported on Carbon Nanotubes for Electrocatalytic Water Splitting. ChemCatChem, 2012, 4, 851-862.	3.7	141
12	Synthesis and catalytic uses of carbon and silicon carbide nanostructures. Catalysis Today, 2002, 76, 11-32.	4.4	138
13	CNFs@CNTs: Superior Carbon for Electrochemical Energy Storage. Advanced Materials, 2008, 20, 1450-1455.	21.0	135
14	Mesoporous carbon nanotubes for use as support in catalysis and as nanosized reactors for one-dimensional inorganic material synthesis. Applied Catalysis A: General, 2003, 254, 345-363.	4.3	117
15	Dissolved Carbon Controls the Initial Stages of Nanocarbon Growth. Angewandte Chemie - International Edition, 2011, 50, 3313-3317.	13.8	117
16	Defectâ€Mediated Functionalization of Carbon Nanotubes as a Route to Design Singleâ€Site Basic Heterogeneous Catalysts for Biomass Conversion. Angewandte Chemie - International Edition, 2009, 48, 6543-6546.	13.8	116
17	Combining Metabolic Engineering and Electrocatalysis: Application to the Production of Polyamides from Sugar. Angewandte Chemie - International Edition, 2016, 55, 2368-2373.	13.8	112
18	Fe and Pt carbon nanotubes for the electrocatalytic conversion of carbon dioxide to oxygenates. Catalysis Today, 2009, 143, 57-63.	4.4	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. Applied Catalysis A: General, 2017, 529, 68-78.	4.3	105
20	Structure, Stability, and Electronic Interactions of Polyoxometalates on Functionalized Graphene Sheets. Langmuir, 2013, 29, 393-402.	3.5	104
21	ZSM-5 Coatings on Î²-SiC Monoliths:â€‰ Possible New Structured Catalyst for the Methanol-to-Olefins Process. Journal of Physical Chemistry C, 2007, 111, 4368-4374.	3.1	101
22	Quantitative Measurement of the BrÃ¶nsted Acid Sites in Solid Acids:Â Toward a Single-Site Design of Mo-Modified ZSM-5 Zeolite. Journal of Physical Chemistry B, 2006, 110, 10390-10395.	2.6	100
23	Selective Glucose Isomerization to Fructose via a Nitrogen-doped Solid Base Catalyst Derived from Spent Coffee Grounds. ACS Sustainable Chemistry and Engineering, 2018, 6, 16113-16120.	6.7	86
24	Improving Hydrothermal Stability of Supported Metal Catalysts for Biomass Conversions: A Review. ACS Catalysis, 2021, 11, 5248-5270.	11.2	86
25	Cathodic Corrosion of Metal Electrodesâ€"How to Prevent It in Electroorganic Synthesis. Chemical Reviews, 2021, 121, 10241-10270.	47.7	83
26	Highly dispersed iron oxide nanoclusters supported on ordered mesoporous SBA-15: A very active catalyst for Friedelâ€"Crafts alkylations. Applied Catalysis A: General, 2006, 300, 1-7.	4.3	81
27	Electrochemical Conversion of Muconic Acid to Biobased Diacid Monomers. ACS Sustainable Chemistry and Engineering, 2016, 4, 3575-3585.	6.7	81
28	Ga doped SBA-15 as an active and stable catalyst for Friedelâ€"Crafts liquid-phase acylation. Applied Catalysis A: General, 2006, 298, 194-202.	4.3	77
29	Active coke: Carbonaceous materials as catalysts for alkane dehydrogenation. Journal of Catalysis, 2010, 269, 329-339.	6.2	74
30	Insights into the Hydrothermal Stability of ZSM-5 under Relevant Biomass Conversion Reaction Conditions. ACS Catalysis, 2015, 5, 4418-4422.	11.2	72
31	Dispersion of Alkyl-Chain-Functionalized Reduced Graphene Oxide Sheets in Nonpolar Solvents. Langmuir, 2012, 28, 6691-6697.	3.5	67
32	Effective Dispersion of MgO Nanostructure on Biochar Support as a Basic Catalyst for Glucose Isomerization. ACS Sustainable Chemistry and Engineering, 2020, 8, 6990-7001.	6.7	63
33	Spinelâ€Type Cobaltâ€"Manganeseâ€Based Mixed Oxide as Sacrificial Catalyst for the Highâ€Yield Production of Homogeneous Carbon Nanotubes. ChemCatChem, 2010, 2, 1559-1561.	3.7	60
34	Tailoring ZSMâ€5 Zeolites for the Fast Pyrolysis of Biomass to Aromatic Hydrocarbons. ChemSusChem, 2016, 9, 1473-1482.	6.8	60
35	Amino-functionalized carbon nanotubes as solid basic catalysts for the transesterification of triglycerides. Chemical Communications, 2009, , 4405.	4.1	57
36	cis,cis-Muconic acid isomerization and catalytic conversion to biobased cyclic-C₆-1,4-diacid monomers. Green Chemistry, 2017, 19, 3042-3050.	9.0	55

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37	Transesterification of Triglycerides Using Nitrogenâ€Functionalized Carbon Nanotubes. ChemSusChem, 2010, 3, 241-245.	6.8	53
38	Thermal Stability of Aluminum-Rich ZSM-5 Zeolites and Consequences on Aromatization Reactions. Journal of Physical Chemistry C, 2016, 120, 20103-20113.	3.1	53
39	Comparative investigation of homogeneous and heterogeneous BrÃ¸nsted base catalysts for the isomerization of glucose to fructose in aqueous media. Applied Catalysis B: Environmental, 2020, 261, 118126.	20.2	52
40	New Insights from Microcalorimetry on the FeOx/CNT-Based Electrocatalysts Active in the Conversion of CO2 to Fuels. ChemSusChem, 2012, 5, 577-586.	6.8	49
41	Design of MFI Zeolite-Based Composites with Hierarchical Pore Structure: A New Generation of Structured Catalysts. Crystal Growth and Design, 2009, 9, 3721-3729.	3.0	47
42	Influence of the microstructure of carbon nanotubes on the oxidative dehydrogenation of ethylbenzene to styrene. Catalysis Today, 2010, 150, 49-54.	4.4	46
43	Electrochemical Conversion of Biologically Produced Muconic Acid: Key Considerations for Scale-Up and Corresponding Technoeconomic Analysis. ACS Sustainable Chemistry and Engineering, 2016, 4, 7098-7109.	6.7	45
44	Labeling and monitoring the distribution of anchoring sites on functionalized CNTs by atomic layer deposition. Journal of Materials Chemistry, 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. Catalysis Today, 2009, 147, 287-299.	4.4	43
46	Conversion of methoxy and hydroxyl functionalities of phenolic monomers over zeolites. Green Chemistry, 2016, 18, 2231-2239.	9.0	43
47	Optimizing the synthesis of cobalt-based catalysts for the selective growth of multiwalled carbon nanotubes under industrially relevant conditions. Carbon, 2011, 49, 5253-5264.	10.3	41
48	Beta zeolite supported on a Î²-SiC foam monolith: A diffusionless catalyst for fixed-bed Friedelâ€"Crafts reactions. Journal of Molecular Catalysis A, 2006, 248, 113-120.	4.8	40
49	Synthesis of a carbon nanotube monolith with controlled macroscopic shape. Carbon, 2006, 44, 2587-2589.	10.3	39
50	One-pot synthesis of Ga-SBA-15: Activity comparison with Ga-post-treated SBA-15 catalysts. Applied Catalysis A: General, 2007, 316, 219-225.	4.3	39
51	Synthesis of zeolite crystals with unusual morphology: Application in acid catalysis. Applied Catalysis A: General, 2010, 390, 102-109.	4.3	39
52	Gas sensing properties and p-type response of ALD TiO₂coated carbon nanotubes. Nanotechnology, 2015, 26, 024004.	2.6	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. Journal of Physical Chemistry C, 2009, 113, 10554-10559.	3.1	33
54	The Use of Terahertz Spectroscopy as a Sensitive Probe in Discriminating the Electronic Properties of Structurally Similar Multiâ€Walled Carbon Nanotubes. Advanced Materials, 2009, 21, 3953-3957.	21.0	32

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55	Influence of the graphitisation of hollow carbon nanofibers on their functionalisation and subsequent filling with metal nanoparticles. Chemical Communications, 2009, , 7158.	4.1	31
56	Structure and properties of a Mo oxide catalyst supported on hollow carbon nanofibers in selective propene oxidation. Journal of Catalysis, 2010, 271, 305-314.	6.2	28
57	The effect of alumina on FCC catalyst in the presence of nickel and vanadium. Applied Catalysis A: General, 2010, 388, 15-21.	4.3	28
58	BETA zeolite nanowire synthesis under non-hydrothermal conditions using carbon nanotubes as template. Carbon, 2004, 42, 1941-1946.	10.3	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. ACS Sustainable Chemistry and Engineering, 2017, 5, 8766-8776.	6.7	27
60	Functional carbons and carbon nanohybrids for the catalytic conversion of biomass to renewable chemicals in the condensed phase. Chinese Journal of Catalysis, 2014, 35, 842-855.	14.0	26
61	A new selective route towards benzoic acid and derivatives from biomass-derived coumalic acid. Green Chemistry, 2017, 19, 4879-4888.	9.0	26
62	Combining Metabolic Engineering and Electrocatalysis: Application to the Production of Polyamides from Sugar. Angewandte Chemie, 2016, 128, 2414-2419.	2.0	24
63	Mesoporous ZSM-5 Zeolites in Acid Catalysis: Top-Down vs. Bottom-Up Approach. Catalysts, 2017, 7, 225.	3.5	22
64	Oxygen-Doped Carbon Supports Modulate the Hydrogenation Activity of Palladium Nanoparticles through Electronic Metalâ€“Support Interactions. ACS Catalysis, 2022, 12, 7344-7356.	11.2	22
65	Solvent-driven isomerization of <i>cis</i>,<i>cis</i>-muconic acid for the production of specialty and performance-advantaged cyclic biobased monomers. Green Chemistry, 2020, 22, 6444-6454.	9.0	17
66	Comparative study of the solvolytic deconstruction of corn stover lignin in batch and flow-through reactors. Green Chemistry, 2021, 23, 7731-7742.	9.0	17
67	SiO2/SiC supports with tailored thermal conductivity to reveal the effect of surface temperature on Ru-catalyzed CO2 methanation. Applied Catalysis B: Environmental, 2021, 286, 119904.	20.2	16
68	Beta zeolite supported on silicon carbide for Friedelâ€“Crafts fixed-bed reactionsElectronic 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/b209858j/. Chemical Communications, 2003, , 530-531.	4.1	15
69	Green catalysis for production of chemicals and CO-free hydrogen. Catalysis Communications, 2007, 8, 1787-1792.	3.3	15
70	Electrochemical hydrogenation of bioprivileged<i>cis</i>,<i>cis</i>-muconic acid to<i>trans</i>-3-hexenedioic acid: from lab synthesis to bench-scale production and beyond. Green Chemistry, 2021, 23, 6456-6468.	9.0	15
71	Carbon nanotubes: a highly selective support for the C=C bond hydrogenation reaction. Studies in Surface Science and Catalysis, 2000, 143, 697-704.	1.5	14
72	Tin Dioxideâ€“Carbon Heterostructures Applied to Gas Sensing: Structure-Dependent Properties and General Sensing Mechanism. Journal of Physical Chemistry C, 0, , 130916143757006.	3.1	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. Applied Catalysis A: General, 2011, 408, 137-147.	4.3	12
74	Engineered Nitrogen-Decorated Carbon Networks for the Metal-Free Catalytic Isomerization of Glucose to Fructose. ACS Sustainable Chemistry and Engineering, 2019, 7, 16959-16963.	6.7	12
75	Analysis of the Amorphous and Interphase Influence of Comononomer Loading on Polymer Properties toward Forwarding Bioadvantaged Copolyamides. Macromolecules, 2021, 54, 7910-7924.	4.8	11
76	Synthesis and characterization of vanadium species coated on alumina, magnesium oxide and hydrotalcite supports to SOx removal. Applied Catalysis A: General, 2013, 462-463, 46-55.	4.3	10
77	Kinetics, Reaction Orders, Rate Laws, and Their Relation to Mechanisms: A Hands-On Introduction for High School Students Using Portable Spectrophotometry. Journal of Chemical Education, 2016, 93, 172-174.	2.3	8
78	Bioenabled Platform to Access Polyamides with Built-In Target Properties. Journal of the American Chemical Society, 2022, 144, 9548-9553.	13.7	7
79	Bioadvantaged Nylon from Renewable Muconic Acid: Synthesis, Characterization, and Properties. ACS Symposium Series, 2018, , 355-367.	0.5	6
80	Polyoxometalate Clusters Supported on Functionalized Graphene Sheets as Nanohybrids for the Catalytic Combustion of Liquid Fuels. Materials Research Society Symposia Proceedings, 2012, 1451, 137-143.	0.1	5
81	Comments on â€œThermodynamics of cis,cis-muconic acid solubility in various polar solvents at low temperature rangeâ€· Journal of Molecular Liquids, 2016, 224, 420-422.	4.9	5
82	MOx/CNTs Hetero-Structures for Gas Sensing Applications: Role of CNTs Defects. Procedia Engineering, 2012, 47, 1259-1262.	1.2	4
83	Hydrogenation/Hydrodeoxygenation Selectivity Modulation by Cometal Addition to Palladium on Carbon-Coated Supports. ACS Sustainable Chemistry and Engineering, 2022, 10, 7759-7771.	6.7	4
84	Effect of the carbon nanotube basicity in Pd/N-CNT catalysts on the synthesis of R-1-phenyl ethyl acetate. Studies in Surface Science and Catalysis, 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 (Angew. Chem. 7/2016). Angewandte Chemie, 2016, 128, 2317-2317.	2.0	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. Journal of Carbon Research, 2022, 8, 37.	2.7	0