Laura Torrente-Murciano

List of Publications by Year
in descending order

82 papers	4,485 citations	117453 34 h-index	106150 65 g-index
82 all docs	82 docs citations	82 times ranked	5416 citing authors

#	Article	IF	Citations
1	Current and future role of Haberâ€“Bosch ammonia in a carbon-free energy landscape. Energy and Environmental Science, 2020, 13, 331-344.	15.6	764
2	The prevalence of surface oxygen vacancies over the mobility of bulk oxygen in nanostructured ceria for the total toluene oxidation. Applied Catalysis B: Environmental, 2015, 174-175, 403-412.	10.8	333
3	H2 Production via Ammonia Decomposition Using Non-Noble Metal Catalysts: A Review. Topics in Catalysis, 2016, 59, 1438-1457.	1.3	252
4	Mapping the Cu-BTC metalâ€“organic framework (HKUST-1) stability envelope in the presence of water vapour for CO2 adsorption from flue gases. Chemical Engineering Journal, 2015, 281, 669-677.	6.6	248
5	Shape-dependency activity of nanostructured CeO2 in the total oxidation of polycyclic aromatic hydrocarbons. Applied Catalysis B: Environmental, 2013, 132-133, 116-122.	10.8	158
6	Low temperature H2 production from ammonia using ruthenium-based catalysts: Synergetic effect of promoter and support. Applied Catalysis B: Environmental, 2015, 172-173, 129-135.	10.8	142
7	Deposition of Pt, Pd, Ru and Au on the surfaces of titanate nanotubes. Topics in Catalysis, 2006, 39, 151-160.	1.3	131
8	Deep eutectic-solvothermal synthesis of nanostructured ceria. Nature Communications, 2017, 8, 14150.	5.8	122
9	In-situ H2 production via low temperature decomposition of ammonia: Insights into the roleÂof cesium as a promoter. International Journal of Hydrogen Energy, 2014, 39, 7646-7654.	3.8	97
10	In-situ synthesis of hydrogen peroxide in tandem with selective oxidation reactions: A mini-review. Catalysis Today, 2015, 248, 115-127.	2.2	95
11	Synthesis of high aspect ratio titanate nanotubes. Journal of Materials Chemistry, 2010, 20, 6484.	6.7	74
12	Purification of oxyfuel-derived CO2. Energy Procedia, 2009, 1, 399-406.	1.8	73
13	Formation of hydrocarbons via CO2 hydrogenation â€“ A thermodynamic study. Journal of CO2 Utilization, 2014, 6, 34-39.	3.3	71
14	Highly selective Pd/titanate nanotube catalysts for the double-bond migration reaction. Journal of Catalysis, 2007, 245, 272-278.	3.1	65
15	Effect of support of Co-Na-Mo catalysts on the direct conversion of CO2 to hydrocarbons. Journal of CO2 Utilization, 2016, 16, 97-103.	3.3	65
16	Synthesis of narrow sized silver nanoparticles in the absence of capping ligands in helical microreactors. Reaction Chemistry and Engineering, 2017, 2, 116-128.	1.9	60
17	Ammonia decomposition over cobalt/carbon catalystsâ€”Effect of carbon support and electron donating promoter on activity. Catalysis Today, 2017, 286, 131-140.	2.2	57
18	Continuous Production of Cellulose Microbeads via Membrane Emulsification. ACS Sustainable Chemistry and Engineering, 2017, 5, 5931-5939.	3.2	57

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19	Purification of oxyfuel-derived CO2. International Journal of Greenhouse Gas Control, 2010, 4, 137-142.	2.3	56
20	Size-activity relationship of iridium particles supported on silica for the total oxidation of volatile organic compounds (VOCs). Chemical Engineering Journal, 2019, 366, 100-111.	6.6	56
21	Enhanced ceria nanoflakes using graphene oxide as a sacrificial template for CO oxidation and dry reforming of methane. Applied Catalysis B: Environmental, 2019, 242, 358-368.	10.8	50
22	Identifying the largest environmental life cycle impacts during carbon nanotube synthesis via chemical vapour deposition. Journal of Cleaner Production, 2013, 42, 180-189.	4.6	48
23	Effect of nanostructured ceria as support for the iron catalysed hydrogenation of CO₂ into hydrocarbons. Physical Chemistry Chemical Physics, 2016, 18, 15496-15500.	1.3	48
24	Ru-Based Catalysts for H2 Production from Ammonia: Effect of 1D Support. Topics in Catalysis, 2019, 62, 1169-1177.	1.3	47
25	N-Doped Fe@CNT for Combined RWGS/FT CO₂ Hydrogenation. ACS Sustainable Chemistry and Engineering, 2019, 7, 7395-7402.	3.2	44
26	Mechanistic insights of the reduction of gold salts in the Turkevich protocol. Nanoscale, 2020, 12, 2740-2751.	2.8	43
27	Continuous synthesis of tuneable sized silver nanoparticles via a tandem seed-mediated method in coiled flow inverter reactors. Reaction Chemistry and Engineering, 2018, 3, 267-276.	1.9	42
28	Continuous low temperature synthesis of MAPbX₃ perovskite nanocrystals in a flow reactor. Reaction Chemistry and Engineering, 2018, 3, 640-644.	1.9	41
29	Enhanced H2O2 production over Au-rich bimetallic Auâ€“Pd nanoparticles on ordered mesoporous carbons. Catalysis Today, 2015, 248, 48-57.	2.2	40
30	Low temperature total oxidation of toluene by bimetallic Auâ€“Ir catalysts. Catalysis Science and Technology, 2017, 7, 2886-2896.	2.1	39
31	COx-free hydrogen production from ammonia on novel cobalt catalysts supported on 1D titanate nanotubes. International Journal of Hydrogen Energy, 2019, 44, 30062-30074.	3.8	38
32	Oxidant free conversion of alcohols to nitriles over Ni-based catalysts. Catalysis Science and Technology, 2019, 9, 86-96.	2.1	38
33	Exceeding Singleâ€Pass Equilibrium with Integrated Absorption Separation for Ammonia Synthesis Using Renewable Energyâ€”Redefining the Haberâ€Bosch Loop. Advanced Energy Materials, 2021, 11, 2003845.	10.2	37
34	Sour compression process for the removal of SO and NO from oxyfuel-derived CO2. Energy Procedia, 2011, 4, 908-916.	1.8	36
35	Modification of Ammonia Decomposition Activity of Ruthenium Nanoparticles by N-Doping of CNT Supports. Topics in Catalysis, 2017, 60, 1251-1259.	1.3	36
36	Hydrogen production from ammonia decomposition using Co/Î³-Al2O3 catalysts â€“ Insights into the effect of synthetic method. International Journal of Hydrogen Energy, 2020, 45, 27210-27220.	3.8	36

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37	Hollow fibre membrane reactors for high H2 yields in the WGS reaction. Journal of Membrane Science, 2012, 405-406, 30-37.	4.1	35
38	Effect of nanostructured support on the WGSR activity of Pt/CeO2 catalysts. Catalysis Communications, 2015, 71, 1-6.	1.6	34
39	Theory of hot electrons: general discussion. Faraday Discussions, 2019, 214, 245-281.	1.6	34
40	Synthesis of novel composite materials via the deposition of precious metals onto protonated titanate (TiO2) nanotubes. Transactions of the Institute of Metal Finishing, 2006, 84, 293-299.	0.6	33
41	Enhanced Auï£¿Pd Activity in the Direct Synthesis of Hydrogen Peroxide using Nanostructured Titanate Nanotube Supports. ChemCatChem, 2014, 6, 2531-2534.	1.8	33
42	Single-step synthesis of nanostructured Î³-alumina with solvent reusability to maximise yield and morphological purity. Journal of Materials Chemistry A, 2015, 3, 6196-6201.	5.2	33
43	The importance of particle-support interaction on particle size determination by gas chemisorption. Journal of Nanoparticle Research, 2016, 18, 87.	0.8	33
44	Highly dispersed encapsulated AuPd nanoparticles on ordered mesoporous carbons for the direct synthesis of H2O2 from molecular oxygen and hydrogen. Chemical Communications, 2012, 48, 5316.	2.2	32
45	Selective Oxidation of Salicylic Alcohol to Aldehyde with O₂/H₂ using Auâ€Pd on Titanate Nanotubes Catalysts. ChemCatChem, 2015, 7, 925-927.	1.8	31
46	Nanostructured faceted ceria as oxidation catalyst. Current Opinion in Chemical Engineering, 2018, 20, 99-106.	3.8	31
47	Î³-Al₂O₃nanorods with tuneable dimensions â€“ a mechanistic understanding of their hydrothermal synthesis. RSC Advances, 2017, 7, 22369-22377.	1.7	30
48	Continuous manufacturing of silver nanoparticles between 5 and 80 nm with rapid online optical size and shape evaluation. Reaction Chemistry and Engineering, 2020, 5, 342-355.	1.9	29
49	Continuous synthesis of hollow silverâ€“palladium nanoparticles for catalytic applications. Faraday Discussions, 2018, 208, 427-441.	1.6	27
50	Morphological Control of Nanostructured V₂O₅ by Deep Eutectic Solvents. ACS Applied Materials & Interfaces, 2020, 12, 18803-18812.	4.0	27
51	Continuous synthesis of monodisperse iron@iron oxide core@shell nanoparticles. Chemical Engineering Journal, 2020, 396, 125299.	6.6	27
52	Recent progress on the manufacturing of nanoparticles in multi-phase and single-phase flow reactors. Current Opinion in Chemical Engineering, 2020, 29, 26-33.	3.8	24
53	Telomerisation of long-chain dienes with alcohols using Pd(IMes)(dvds) catalyst. Green Chemistry, 2010, 12, 866.	4.6	22
54	A MOF-templated approach for designing rutheniumâ€“cesium catalysts for hydrogen generation from ammonia. International Journal of Hydrogen Energy, 2019, 44, 30108-30118.	3.8	22

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55	Dynamics of hot electron generation in metallic nanostructures: general discussion. Faraday Discussions, 2019, 214, 123-146.	1.6	21
56	COx-free hydrogen production from ammonia â€“ mimicking the activity of Ru catalysts with unsupported Co-Re alloys. Applied Catalysis B: Environmental, 2021, 280, 119405.	10.8	21
57	Study of individual reactions of the sour compression process for the purification of oxyfuel-derived CO2. International Journal of Greenhouse Gas Control, 2011, 5, S224-S230.	2.3	20
58	The potential of green ammonia for agricultural and economic development in Sierra Leone. One Earth, 2021, 4, 104-113.	3.6	20
59	High Yield Manufacturing of Î³-Al₂O₃ Nanorods. ACS Sustainable Chemistry and Engineering, 2018, 6, 88-92.	3.2	18
60	Tailoring the size of silver nanoparticles by controlling mixing in microreactors. Chemical Engineering Journal, 2022, 432, 134112.	6.6	18
61	Insights into biphasic oxidations with hydrogen peroxide; towards scaling up. Green Chemistry, 2014, 16, 3281-3285.	4.6	17
62	Fast Synthesis of CeO₂ Nanoparticles in a Continuous Microreactor Using Deep Eutectic Reline As Solvent. ACS Sustainable Chemistry and Engineering, 2020, 8, 18297-18302.	3.2	17
63	Size Control in the Colloidal Synthesis of Plasmonic Magnesium Nanoparticles. Journal of Physical Chemistry C, 2022, 126, 563-577.	1.5	17
64	Zeolite Y supported nickel phosphide catalysts for the hydrodenitrogenation of quinoline as a proxy for crude bio-oils from hydrothermal liquefaction of microalgae. Dalton Transactions, 2018, 47, 1189-1201.	1.6	16
65	Indirect photo-electrochemical detection of carbohydrates with Pt@g-C3N4 immobilised into a polymer of intrinsic microporosity (PIM-1) and attached to a palladium hydrogen capture membrane. Bioelectrochemistry, 2020, 134, 107499.	2.4	12
66	Green, scalable, low cost and reproducible flow synthesis of biocompatible PEG-functionalized iron oxide nanoparticles. Reaction Chemistry and Engineering, 2021, 6, 1961-1973.	1.9	12
67	Dialâ€Aâ€Particle: Precise Manufacturing of Plasmonic Nanoparticles Based on Early Growth Informationâ€”Redefining Automation for Slow Material Synthesis. Advanced Energy Materials, 2021, 11, 2100918.	10.2	11
68	Selective telomerisation of isoprene with methanol by a heterogeneous palladium resin catalyst. Catalysis Science and Technology, 2015, 5, 1206-1212.	2.1	10
69	Synergistic Effect of Simultaneous Doping of Ceria Nanorods with Cu and Cr on CO Oxidation and NO Reduction. Chemistry - A European Journal, 2021, 27, 2165-2174.	1.7	10
70	Guidance for targeted development of ammonia synthesis catalysts from a holistic process approach. Chem Catalysis, 2021, 1, 1163-1172.	2.9	10
71	Rational design of the inlet configuration of flow systems for enhanced mixing. Journal of Flow Chemistry, 2021, 11, 589-598.	1.2	9
72	Biphasic Epoxidation Reaction in the Absence of Surfactantsâ€”Integration of Reaction and Separation Steps in Microtubular Reactors. ACS Sustainable Chemistry and Engineering, 2016, 4, 3245-3249.	3.2	8

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73	Indirect Formic Acid Fuel Cell Based on a Palladium or Palladiumâ€Alloy Film Separating the Fuel Reaction and Electricity Generation. ChemElectroChem, 2021, 8, 378-385.	1.7	8
74	Mechanism of CO2 capture in nanostructured sodium amide encapsulated in porous silica. Surface and Coatings Technology, 2018, 350, 227-233.	2.2	7
75	XAS investigation of silica aerogel supported cobalt rhenium catalysts for ammonia decomposition. Physical Chemistry Chemical Physics, 2020, 22, 18932-18949.	1.3	7
76	Applications in catalysis, photochemistry, and photodetection: general discussion. Faraday Discussions, 2019, 214, 479-499.	1.6	5
77	Importance of Monitoring the Synthesis of Lightâ€Interacting Nanoparticles â€“ A Review on In Situ, Ex Situ, and Online Timeâ€Resolved Studies. Advanced Optical Materials, 2022, 10, .	3.6	4
78	Tandem isomerization/telomerization of long chain dienes. Frontiers in Chemistry, 2014, 2, 37.	1.8	3
79	Theory as a driving force to understand reactions on nanoparticles: general discussion. Faraday Discussions, 2018, 208, 147-185.	1.6	3
80	Control of catalytic nanoparticle synthesis: general discussion. Faraday Discussions, 2018, 208, 471-495.	1.6	3
81	Highlights from Faraday Discussion on Designing Nanoparticle Systems for Catalysis, London, UK, May 2018. Chemical Communications, 2018, 54, 9385-9393.	2.2	2
82	Low Temperature and Pressure Single-Vessel Integrated Ammonia Synthesis and Separation using Commercial KATALCO Catalysts. Johnson Matthey Technology Review, 2022, 66, 435-442.	0.5	0