Wey Yang Teoh

List of Publications by Citations

81 papers	4,821 citations	36 h-index	69 g-index
85 ext. papers	5,239 ext. citations	7.8 avg, IF	5.66 L-index

#	Paper	IF	Citations
81	Flame spray pyrolysis: An enabling technology for nanoparticles design and fabrication. *Nanoscale*, **2010**, 2, 1324-47	7.7	437
80	Progress in Heterogeneous Photocatalysis: From Classical Radical Chemistry to Engineering Nanomaterials and Solar Reactors. *Journal of Physical Chemistry Letters*, **2012**, 3, 629-39	6.4	344
79	Photocatalytic H2 Evolution over TiO2 Nanoparticles. The Synergistic Effect of Anatase and Rutile. *Journal of Physical Chemistry C*, **2010**, 114, 2821-2829	3.8	307
78	Cytotoxic origin of copper(II) oxide nanoparticles: comparative studies with micron-sized particles, leachate, and metal salts. *ACS Nano*, **2011**, 5, 7214-25	16.7	253
77	Flame sprayed visible light-active Fe-TiO2 for photomineralisation of oxalic acid. *Catalysis Today*, **2007**, 120, 203-213	5.3	166
76	Direct (one-step) synthesis of . *Chemical Engineering Science*, **2005**, 60, 5852-5861	4.4	159
75	Functionalized-Graphene Composites: Fabrication and Applications in Sustainable Energy and Environment. *Chemistry of Materials*, **2016**, 28, 8082-8118	9.6	151
74	The stabilization and bio-functionalization of iron oxide nanoparticles using heterotelechelic polymers. *Journal of Materials Chemistry*, **2009**, 19, 111-123		143
73	Reversible antimicrobial photoswitching in nanosilver. *Small*, **2009**, 5, 341-4	11	139
72	Anti-fouling magnetic nanoparticles for siRNA delivery. *Journal of Materials Chemistry*, **2010**, 20, 255-265		118
71	Functionalization Strategies for Protease Immobilization on Magnetic Nanoparticles. *Advanced Functional Materials*, **2010**, 20, 1767-1777	15.6	118
70	Flame preparation of visible-light-responsive BiVO4 oxygen evolution photocatalysts with subsequent activation via aqueous route. *ACS Applied Materials & Interfaces*, **2011**, 3, 1997-2004	9.5	117
69	Flame-Sprayed Superparamagnetic Bare and Silica-Coated Maghemite Nanoparticles: Synthesis, Characterization, and Protein Adsorption□Desorption. *Chemistry of Materials*, **2006**, 18, 6403-6413	9.6	116
68	Influence of the oxide support reducibility on the CO2 methanation over Ru-based catalysts. *Applied Catalysis B: Environmental*, **2017**, 219, 715-726	21.8	109
67	Catalytic reduction of NO by CO over Cu/CexZr1□O2 prepared by flame synthesis. *Journal of Catalysis*, **2010**, 272, 210-219	7.3	109
66	Heterojunction Engineering of CdTe and CdSe Quantum Dots on TiO2 Nanotube Arrays: Intricate Effects of Size-Dependency and Interfacial Contact on Photoconversion Efficiencies. *Advanced Functional Materials*, **2012**, 22, 2821-2829	15.6	104
65	Flame-Synthesized Ceria-Supported Copper Dimers for Preferential Oxidation of CO. *Advanced Functional Materials*, **2009**, 19, 369-377	15.6	103

64	Cellular uptake and reactive oxygen species modulation of cerium oxide nanoparticles in human monocyte cell line U937. *Biomaterials*, **2012**, 33, 7915-24	15.6	100
63	Insight into microstructural and magnetic properties of flame-made Fe2O3 nanoparticles. *Journal of Materials Chemistry*, **2007**, 17, 4876		93
62	Inter-relationship between Pt oxidation states on TiO2 and the photocatalytic mineralisation of organic matters. *Journal of Catalysis*, **2007**, 251, 271-280	7.3	90
61	Temperature-induced evolution of reaction sites and mechanisms during preferential oxidation of CO. *Journal of Catalysis*, **2011**, 277, 64-71	7.3	75
60	Experimental validation of proton transverse relaxivity models for superparamagnetic nanoparticle MRI contrast agents. *Nanotechnology*, **2010**, 21, 035103	3.4	72
59	Efficient photoelectrochemical water splitting over anodized p-type NiO porous films. *ACS Applied Materials & Interfaces*, **2014**, 6, 18558-68	9.5	70
58	Anti-angiogenic activity of heparin functionalised cerium oxide nanoparticles. *Biomaterials*, **2013**, 34, 8808-18	15.6	69
57	Semiconductor Nanocrystals as Luminescent Down-Shifting Layers To Enhance the Efficiency of Thin-Film CdTe/CdS and Crystalline Si Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 16393-16400	3.8	66
56	Graphene oxide-based electrochemical sensor: a platform for ultrasensitive detection of heavy metal ions. *RSC Advances*, **2014**, 4, 24653-24657	3.7	64
55	Induced adaptation of Bacillus sp. to antimicrobial nanosilver. *Small*, **2013**, 9, 3554-60	11	64
54	Insight towards the role of platinum in the photocatalytic mineralisation of organic compounds. *Journal of Molecular Catalysis A*, **2007**, 263, 93-102		61
53	Shuttling Photoelectrochemical Electron Transport in Tricomponent CdS/rGO/TiO2 Nanocomposites. *Journal of Physical Chemistry C*, **2013**, 117, 20406-20414	3.8	53
52	A Perspective on the Flame Spray Synthesis of Photocatalyst Nanoparticles. *Materials*, **2013**, 6, 3194-3213	3.5	52
51	Hierarchical growth of SnO2 nanostructured films on FTO substrates: structural defects induced by Sn(II) self-doping and their effects on optical and photoelectrochemical properties. *Nanoscale*, **2014**, 6, 6084-91	7.7	47
50	Cellular uptake and activity of heparin functionalised cerium oxide nanoparticles in monocytes. *Biomaterials*, **2013**, 34, 4377-86	15.6	46
49	Machine Learning for Accelerated Discovery of Solar Photocatalysts. *ACS Catalysis*, **2019**, 9, 11774-11787	13.1	45
48	Engineering of Facets, Band Structure, and Gas-Sensing Properties of Hierarchical Sn2+-Doped SnO2 Nanostructures. *Advanced Functional Materials*, **2013**, 23, n/a-n/a	15.6	45
47	Submicron and nano formulations of titanium dioxide and zinc oxide stimulate unique cellular toxicological responses in the green microalga Chlamydomonas reinhardtii. *Journal of Hazardous Materials*, **2013**, 260, 984-92	12.8	43

46	Photocatalytic mineralisation of organic compounds: a comparison of flame-made TiO2 catalysts. *Topics in Catalysis*, **2007**, 44, 489-497	2.3	42
45	Evolution of Morphology and Magnetic Properties in Silica/Maghemite Nanocomposites. *Journal of Physical Chemistry C*, **2009**, 113, 12040-12047	3.8	33
44	Polyhedral Oligomeric Silsesquioxane as a Ligand for CdSe Quantum Dots. *Journal of Physical Chemistry C*, **2013**, 117, 1857-1862	3.8	32
43	Ru-Doped Cobalt□irconia Nanocomposites by Flame Synthesis: Physicochemical and Catalytic Properties. *Chemistry of Materials*, **2008**, 20, 4069-4079	9.6	32
42	Dopant-free, polymorphic design of TiO2 nanocrystals by flame aerosol synthesis. *Chemical Engineering Science*, **2011**, 66, 2409-2416	4.4	31
41	Preferential oxidation of carbon monoxide over Pt□eOx/CeO2 synthesized by two-nozzle flame spray pyrolysis. *Journal of Catalysis*, **2015**, 329, 248-261	7.3	30
40	Decrease of the required dopant concentration for □Bi2O3 crystal stabilization through thermal quenching during single-step flame spray pyrolysis. *CrystEngComm*, **2016**, 18, 2046-2056	3.3	30
39	Supported gold clusters as effective and reusable photocatalysts for the abatement of endocrine-disrupting chemicals under visible light. *Journal of Catalysis*, **2017**, 354, 1-12	7.3	30
38	Understanding photocatalytic metallization of preadsorbed ionic gold on titania, ceria, and zirconia. *Langmuir*, **2010**, 26, 2099-106	4	29
37	Simulation of gas diffusion in highly porous nanostructures by direct simulation Monte Carlo. *Chemical Engineering Science*, **2014**, 105, 69-76	4.4	27
36	Designing Photoelectrodes for Photocatalytic Fuel Cells and Elucidating the Effects of Organic Substrates. *ChemSusChem*, **2015**, 8, 4005-15	8.3	26
35	Investigation of the Exchange Kinetics and Surface Recovery of CdxHg1□Te Quantum Dots during Cation Exchange Using a Microfluidic Flow Reactor. *Chemistry of Materials*, **2017**, 29, 2756-2768	9.6	22
34	Floc strength characterization technique. An insight into silica aggregation. *Langmuir*, **2004**, 20, 6450-7	4	22
33	Modulating charge transport in semiconductor photocatalysts by spatial deposition of reduced graphene oxide and platinum. *Journal of Catalysis*, **2015**, 332, 101-111	7.3	21
32	Methanation of carbon monoxide over promoted flame-synthesized cobalt clusters stabilized in zirconia matrix. *Journal of Catalysis*, **2015**, 326, 182-193	7.3	19
31	Probing Surface Properties and Reaction Intermediates During Heterogeneous Catalytic Oxidation of Acetaldehyde. *ChemCatChem*, **2009**, 1, 286-294	5.2	17
30	Molybdenum Selenide nanosheets Surrounding nickel Selenides Sub-microislands on nickel foam as high-performance bifunctional electrocatalysts for water Splitting. *Electrochimica Acta*, **2020**, 349, 136336	6.7	16
29	Elucidating the Oxygen Activation Mechanism on Ceria-Supported Copper-Oxo Species Using Time-Resolved X-ray Absorption Spectroscopy. *ACS Catalysis*, **2020**, 10, 4692-4701	13.1	16

28	Revisiting the mechanism of hexavalent chromium ion reduction: The parallel photodecomposition and photocatalytic reduction of chromate(VI) ester. *Applied Catalysis B: Environmental*, **2017**, 210, 444-453	21.8	15
27	Charge Transport in Dye-Sensitized Solar Cells Based on Flame-made $hbox{TiO}_{bm 2}$ Nanoparticles. *IEEE Journal of Selected Topics in Quantum Electronics*, **2010**, 16, 1641-1648	3.8	15
26	Enhanced photoelectrochemical charge transfer on Mn-doped CdS/TiO2 nanotube arrays: The roles of organic substrates. *Catalysis Today*, **2019**, 335, 468-476	5.3	14
25	Spectroscopic Studies of Pristine and Fluorinated Nano-ZrO2 in Photostimulated Heterogeneous Processes. *Journal of Physical Chemistry C*, **2009**, 113, 4566-4574	3.8	14
24	Catalytically active interfaces in titania nanorod-supported copper catalysts for CO oxidation. *Nano Research*, **2020**, 13, 533-542	10	13
23	Labeling of cancer cells with magnetic nanoparticles for magnetic resonance imaging. *Magnetic Resonance in Medicine*, **2014**, 71, 1896-905	4.4	12
22	Zinc Oxide Nanoparticles Induce Cell Filamentation in Escherichia coli. *Particle and Particle Systems Characterization*, **2013**, 30, 375-380	3.1	11
21	Cascade reaction engineering on zirconia-supported mesoporous MFI zeolites with tunable Lewis-Brønsted acid sites: a case of the one-pot conversion of furfural to γ-valerolactone.. *RSC Advances*, **2020**, 10, 35318-35328	3.7	11
20	In situ metal doping during modified anodization synthesis of Nb2O5 with enhanced photoelectrochemical water splitting. *AICHE Journal*, **2016**, 62, 352-358	3.6	11
19	Flame-made amorphous solid acids with tunable acidity for the aqueous conversion of glucose to levulinic acid. *Green Chemistry*, **2020**, 22, 688-698	10	10
18	Studies of Nanosized Iron-Doped TiO2 Photocatalysts by Spectroscopic Methods. *Applied Magnetic Resonance*, **2017**, 48, 447-459	0.8	9
17	Selective catalytic oxidation of ammonia over nano Cu/zeolites with different topologies. *Environmental Science: Nano*, **2020**, 7, 1399-1414	7.1	7
16	Enhanced hydrogen evolution rates at high pH with a colloidal cadmium sulphide–platinum hybrid system. *APL Materials*, **2014**, 2, 126102	5.7	7
15	Facile Functionalization and Phase Reduction Route of Magnetic Iron Oxide Nanoparticles for Conjugation of Matrix Metalloproteinase. *Advanced Engineering Materials*, **2010**, 12, B210-B214	3.5	7
14	Visible-light photocatalysis and charge carrier dynamics of elemental crystalline red phosphorus. *Journal of Chemical Physics*, **2020**, 153, 024707	3.9	7
13	Modulated anodization synthesis of Sn-doped iron oxide with enhanced solar water splitting performance. *Materials Today Chemistry*, **2019**, 12, 7-15	6.2	7
12	Photocatalytic Overall Water Splitting over ALi2Ti6O14(A: 2Na and Sr) with Tunneling Structure. *Chemistry Letters*, **2011**, 40, 108-110	1.7	6
11	Structural Evolution of Cu/ZnO Active Sites: From Reactive Environment to Ultrahigh Vacuum. *ChemCatChem*, **2014**, 6, 2322-2326	5.2	5

10	The Role of Cocatalysts on Bismuth Vanadate in the Abatement of Endocrine Disrupting Chemicals and Related Compounds under Visible Light. *Particle and Particle Systems Characterization*, **2017**, 34, 1600300	3.1	4
9	2D sp2 Carbon-Conjugated Covalent Organic Framework with Pyrene-Tethered TEMPO Intercalation for Photocatalytic Aerobic Oxidation of Sulfides into Sulfoxides. *Solar Rrl*,2100608	7.1	3
8	Solar Cells: Heterojunction Engineering of CdTe and CdSe Quantum Dots on TiO2 Nanotube Arrays: Intricate Effects of Size-Dependency and Interfacial Contact on Photoconversion Efficiencies (Adv. Funct. Mater. 13/2012). *Advanced Functional Materials*, **2012**, 22, 2876-2876	15.6	1
7	Antimicrobial Resistance: Induced Adaptation of Bacillus sp. to Antimicrobial Nanosilver (Small 21/2013). *Small*, **2013**, 9, 3553-3553	11	1
6	Chemical fuel cell reactor as the ultimate green reactor. *Current Opinion in Chemical Engineering*, **2021**, 34, 100740	5.4	1
5	Hetero-phase dendritic elemental phosphorus for visible light photocatalytic hydrogen generation. *Applied Catalysis B: Environmental*, **2022**, 121428	21.8	1
4	Nanoparticles: Zinc Oxide Nanoparticles Induce Cell Filamentation in Escherichia coli (Part. Part. Syst. Charact. 4/2013). *Particle and Particle Systems Characterization*, **2013**, 30, 374-374	3.1	
3	Flame Synthesis of Simple and Multielemental Oxide Catalysts **2021**, 183-201		
2	Evolution of Catalysts Design and Synthesis: From Bulk Metal Catalysts to Fine Wires and Gauzes, and that to Nanoparticle Deposits, Metal Clusters, and Single Atoms **2021**, 1-19		
1	Selective visible light reduction of carbon dioxide over iridium(III)-terpyridine photocatalysts. *Materials Today Chemistry*, **2021**, 22, 100563	6.2	