Raquel Portela

List of Publications by Year
in descending order

51 papers	2,067 citations	279798 23 h-index	233421 45 g-index
52 all docs	52 docs citations	52 times ranked	2912 citing authors

#	Article	IF	Citations
1	Photocatalytic materials: recent achievements and near future trends. Journal of Materials Chemistry A, 2014, 2, 2863-2884.	10.3	387
2	Synthesis and photocatalytic properties of dense and porous TiO2-anatase thin films prepared by solâ€“gel. Applied Catalysis B: Environmental, 2009, 86, 1-7.	20.2	174
3	<i>Operando</i> Investigation of Toluene Oxidation over 1D Pt@CeO₂ Derived from Pt Cluster-Containing MOF. Journal of the American Chemical Society, 2021, 143, 196-205.	13.7	128
4	Design of Advanced Photocatalytic Materials for Energy and Environmental Applications. Green Energy and Technology, 2013, , .	0.6	102
5	Kinetics of denitrification using sulphur compounds: Effects of S/N ratio, endogenous and exogenous compounds. Bioresource Technology, 2008, 99, 1293-1299.	9.6	101
6	Preparation of TiO2 coatings on PET monoliths for the photocatalytic elimination of trichloroethylene in the gas phase. Applied Catalysis B: Environmental, 2006, 66, 295-301.	20.2	81
7	Photocatalytic oxidation of 2-propanol/toluene binary mixtures at indoor air concentration levels. Applied Catalysis B: Environmental, 2011, 107, 347-354.	20.2	80
8	Selection of TiO2-support: UV-transparent alternatives and long-term use limitations for H2S removal. Catalysis Today, 2007, 129, 223-230.	4.4	73
9	On the Preparation of TiO₂âˆ'Sepiolite Hybrid Materials for the Photocatalytic Degradation of TCE: Influence of TiO₂ Distribution in the Mineralization. Environmental Science & Technology, 2008, 42, 5892-5896.	10.0	66
10	Natural silicate-TiO 2 hybrids for photocatalytic oxidation of formaldehyde in gas phase. Chemical Engineering Journal, 2017, 310, 560-570.	12.7	66
11	Photocatalytic-based strategies for H2S elimination. Catalysis Today, 2010, 151, 64-70.	4.4	61
12	Photocatalytic elimination of indoor air biological and chemical pollution in realistic conditions. Chemosphere, 2012, 87, 625-630.	8.2	55
13	H2S photodegradation by TiO2/M-MCM-41 (M=Cr or Ce): Deactivation and by-product generation under UV-A and visible light. Applied Catalysis B: Environmental, 2008, 84, 643-650.	20.2	53
14	Transient operando study on the NH3/NH4+ interplay in V-SCR monolithic catalysts. Applied Catalysis B: Environmental, 2018, 224, 109-115.	20.2	48
15	Enhanced photocatalytic activity of TiO2 thin films on plasma-pretreated organic polymers. Catalysis Today, 2014, 230, 145-151.	4.4	39
16	Engineering operando methodology: Understanding catalysis in time and space. Frontiers of Chemical Science and Engineering, 2018, 12, 509-536.	4.4	39
17	Hybrid photocatalysts for the degradation of trichloroethylene in air. Catalysis Today, 2009, 143, 302-308.	4.4	38
18	Photocatalytic degradation of TCE in dry and wet air conditions with TiO2 porous thin films. Applied Catalysis B: Environmental, 2011, 108-109, 14-21.	20.2	38

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19	Photocatalysis for Continuous Air Purification in Wastewater Treatment Plants: From Lab to Reality. Environmental Science & Technology, 2012, 46, 5040-5048.	10.0	35
20	Nanostructured ZnO/sepiolite monolithic sorbents for H₂S removal. Journal of Materials Chemistry A, 2015, 3, 1306-1316.	10.3	33
21	Solar/lamp-irradiated tubular photoreactor for air treatment with transparent supported photocatalysts. Applied Catalysis B: Environmental, 2011, 105, 95-102.	20.2	32
22	MnOx-support interactions in catalytic bodies for selective reduction of NO with NH3. Applied Catalysis B: Environmental, 2019, 256, 117821.	20.2	26
23	Behaviour of TiO2â€“SiMgOx hybrid composites on the solar photocatalytic degradation of polluted air. Applied Catalysis B: Environmental, 2011, 101, 176-182.	20.2	25
24	Hybrid TiO₂â^'SiMgO_{<i>X</i>} Composite for Combined Chemisorption and Photocatalytic Elimination of Gaseous H₂S. Industrial & Engineering Chemistry Research, 2010, 49, 6685-6690.	3.7	23
25	Photocatalytic activity of TiO2 films prepared by surfactant-mediated solâ€“gel methods over commercial polymer substrates. Chemical Engineering Journal, 2016, 283, 535-543.	12.7	21
26	<i>Operando</i> Reactor-Cell with Simultaneous Transmission FTIR and Raman Characterization (IRRaman) for the Study of Gas-Phase Reactions with Solid Catalysts. Analytical Chemistry, 2020, 92, 5100-5106.	6.5	20
27	Operando DRIFTS study of the role of hydroxyls groups in trichloroethylene photo-oxidation over titanate and TiO2 nanostructures. Catalysis Today, 2013, 206, 32-39.	4.4	19
28	Highly selective one-dimensional TiO2-based nanostructures for air treatment applications. Applied Catalysis B: Environmental, 2011, 110, 251-259.	20.2	15
29	Structured catalysts based on sepiolite with tailored porosity to remove diesel soot. Applied Catalysis A: General, 2015, 498, 41-53.	4.3	15
30	Environmental Applications of Photocatalysis. Green Energy and Technology, 2013, , 35-66.	0.6	15
31	Performance and Stability of Wet-Milled CoAl2O4, Ni/CoAl2O4, and Pt,Ni/CoAl2O4 for Soot Combustion. Catalysts, 2020, 10, 406.	3.5	14
32	Shaping up operando spectroscopy: Raman characterization of a working honeycomb monolith. Catalysis Science and Technology, 2015, 5, 4942-4945.	4.1	13
33	Pt-free CoAl2O4 catalyst for soot combustion with NOx/O2. Applied Catalysis A: General, 2020, 591, 117404.	4.3	13
34	Development of sepiolite/SiC porous catalytic filters for diesel soot abatement. Microporous and Mesoporous Materials, 2016, 230, 11-19.	4.4	12
35	Review of Existing Standards, Guides, and Practices for Raman Spectroscopy. Applied Spectroscopy, 2022, 76, 747-772.	2.2	12
36	Chemometrics for Raman Spectroscopy Harmonization. Applied Spectroscopy, 2022, 76, 1021-1041.	2.2	11

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37	Pt mechanical dispersion on non-porous alumina for soot oxidation. Catalysis Communications, 2020, 140, 105999.	3.3	10
38	A simultaneous operando FTIR & Raman study of propane ODH mechanism over V-Zr-O catalysts. Catalysis Today, 2022, 387, 197-206.	4.4	10
39	Development of a versatile experimental setup for the evaluation of the photocatalytic properties of construction materials under realistic outdoor conditions. Environmental Science and Pollution Research, 2014, 21, 11208-11217.	5.3	9
40	Influence of the pore generation method on the metal dispersion and oxidation activity of supported Pt in monolithic catalysts. Applied Catalysis A: General, 2016, 510, 49-56.	4.3	9
41	Influence of Catalyst Properties and Reactor Configuration on the Photocatalytic Degradation of Trichloroethylene Under Sunlight Irradiation. Journal of Solar Energy Engineering, Transactions of the ASME, 2008, 130, .	1.8	8
42	Monolithic SiC supports with tailored hierarchical porosity for molecularly selective membranes and supported liquid-phase catalysis. Catalysis Today, 2022, 383, 44-54.	4.4	8
43	Tailored monolith supports for improved ultra-low temperature water-gas shift reaction. Reaction Chemistry and Engineering, 2021, 6, 2114-2124.	3.7	8
44	Comparison of three high-flow single-stage impaction-based air samplers for bacteria quantification: DUO SAS SUPER 360, SAMPL'AIR and SPIN AIR. Analytical Methods, 2012, 4, 399-405.	2.7	7
45	Novel Ni-Ce-Zr/Al2O3 Cellular Structure for the Oxidative Dehydrogenation of Ethane. Catalysts, 2017, 7, 331.	3.5	6
46	Solar Photocatalysis for the Elimination of Trichloroethylene in the Gas Phase. Journal of Solar Energy Engineering, Transactions of the ASME, 2008, 130, .	1.8	5
47	Non-metal Doping for Band-Gap Engineering. Green Energy and Technology, 2013, , 287-309.	0.6	2
48	Preparation of Photocatalytic Coatings Adapted to the Elimination of Airborne Pollutants: Influence of the Substrate on the Degradation Efficiency. Journal of Advanced Oxidation Technologies, 2008, 11, .	0.5	1
49	Future Perspectives of Photocatalysis. Green Energy and Technology, 2013, , 345-348.	0.6	1
50	Photocatalytic Oxidation of H2S on TiO2 and TiO2-ZrO2 Thin Films. Journal of Advanced Oxidation Technologies, 2007, 10, .	0.5	0
51	Turning Sunlight into Fuels: Photocatalysis for Energy. Green Energy and Technology, 2013, , 67-84.	0.6	0