

Lenka Matejova

List of Publications by Year in descending order

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72
papers

2,166
citations

279487

23
h-index

233125

45
g-index

74
all docs

74
docs citations

74
times ranked

2894
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of TiO ₂ particle size on the photocatalytic reduction of CO ₂ . Applied Catalysis B: Environmental, 2009, 89, 494-502.	10.8	460
2	Catalysis in VOC Abatement. Topics in Catalysis, 2011, 54, 1224-1256.	1.3	169
3	Novel TiO ₂ /C ₃ N ₄ Photocatalysts for Photocatalytic Reduction of CO ₂ and for Photocatalytic Decomposition of N ₂ O. Journal of Physical Chemistry A, 2016, 120, 8564-8573.	1.1	158
4	Preparation and characterization of Ag-doped crystalline titania for photocatalysis applications. Applied Catalysis B: Environmental, 2012, 111-112, 119-125.	10.8	117
5	Preparation, characterization and photocatalytic properties of cerium doped TiO ₂ : On the effect of Ce loading on the photocatalytic reduction of carbon dioxide. Applied Catalysis B: Environmental, 2014, 152-153, 172-183.	10.8	104
6	Oxidation of dichloromethane over Pt, Pd, Rh, and V ₂ O ₅ catalysts supported on Al ₂ O ₃ , Al ₂ O ₃ -TiO ₂ and Al ₂ O ₃ -CeO ₂ . Applied Catalysis B: Environmental, 2013, 138-139, 33-42.	10.8	68
7	Novel cerium doped titania catalysts for photocatalytic decomposition of ammonia. Applied Catalysis B: Environmental, 2015, 178, 108-116.	10.8	63
8	Oxidation of perchloroethylene—Activity and selectivity of Pt, Pd, Rh, and V ₂ O ₅ catalysts supported on Al ₂ O ₃ , Al ₂ O ₃ -TiO ₂ and Al ₂ O ₃ -CeO ₂ . Applied Catalysis B: Environmental, 2012, 113-114, 150-159.	10.8	52
9	Total oxidation of model volatile organic compounds over some commercial catalysts. Applied Catalysis A: General, 2012, 443-444, 40-49.	2.2	47
10	ZnS/MMT nanocomposites: The effect of ZnS loading in MMT on the photocatalytic reduction of carbon dioxide. Applied Catalysis B: Environmental, 2014, 158-159, 410-417.	10.8	44
11	Total oxidation of dichloromethane and ethanol over ceria—zirconia mixed oxide supported platinum and gold catalysts. Applied Catalysis B: Environmental, 2013, 142-143, 54-64.	10.8	41
12	Refining bimodal microstructure of materials with MSTRUCT. Powder Diffraction, 2014, 29, S35-S41.	0.4	39
13	Hydrogen production from microwave catalytic pyrolysis of spruce sawdust. Journal of Analytical and Applied Pyrolysis, 2017, 124, 175-179.	2.6	39
14	Sol-gel derived Pd supported TiO ₂ -ZrO ₂ and TiO ₂ photocatalysts; their examination in photocatalytic reduction of carbon dioxide. Catalysis Today, 2014, 230, 20-26.	2.2	38
15	Oxidation of perchloroethylene—Activity and selectivity of Pt, Pd, Rh, and V ₂ O ₅ catalysts supported on Al ₂ O ₃ , Al ₂ O ₃ -TiO ₂ and Al ₂ O ₃ -CeO ₂ . Part 2. Applied Catalysis B: Environmental, 2012, 126, 215-224.	10.8	37
16	On sol-gel derived Au-enriched TiO ₂ and TiO ₂ -ZrO ₂ photocatalysts and their investigation in photocatalytic reduction of carbon dioxide. Applied Surface Science, 2013, 285, 688-696.	3.1	37
17	Study of carbon black obtained by pyrolysis of waste scrap tyres. Journal of Thermal Analysis and Calorimetry, 2013, 111, 1475-1481.	2.0	36
18	TiO ₂ Processed by pressurized hot solvents as a novel photocatalyst for photocatalytic reduction of carbon dioxide. Applied Surface Science, 2017, 391, 282-287.	3.1	36

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19	Activated Carbons Prepared from a Broad Range of Residual Agricultural Biomasses Tested for Xylene Abatement in the Gas Phase. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 2368-2374.	3.2	31
20	Standard (master) isotherms of alumina, magnesia, titania and controlled-pore glass. <i>Microporous and Mesoporous Materials</i> , 2008, 107, 227-232.	2.2	28
21	Super/subcritical fluid extractions for preparation of the crystalline titania. <i>Journal of Supercritical Fluids</i> , 2010, 52, 215-221.	1.6	28
22	Reverse micelles directed synthesis of TiO ₂ –CeO ₂ mixed oxides and investigation of their crystal structure and morphology. <i>Journal of Solid State Chemistry</i> , 2013, 198, 485-495.	1.4	26
23	Pore-size distributions from nitrogen adsorption revisited: Models comparison with controlled-pore glasses. <i>Applied Catalysis A: General</i> , 2006, 313, 167-176.	2.2	24
24	Photocatalytic decomposition of methanol-water solution over N-La/TiO ₂ photocatalysts. <i>Applied Surface Science</i> , 2019, 469, 879-886.	3.1	24
25	Comparison of textural information from argon(87ÅK) and nitrogen(77ÅK) physisorption. <i>Journal of Porous Materials</i> , 2011, 18, 557-565.	1.3	23
26	TiO ₂ powders synthesized by pressurized fluid extraction and supercritical drying: Effect of water and methanol on structural properties and purity. <i>Materials Research Bulletin</i> , 2012, 47, 3573-3579.	2.7	23
27	Photocatalytic decomposition of methanol over La/TiO ₂ materials. <i>Environmental Science and Pollution Research</i> , 2018, 25, 34818-34825.	2.7	23
28	Precursors of active Ni species in Ni/Al ₂ O ₃ catalysts for oxidative dehydrogenation of ethane. <i>Chinese Journal of Catalysis</i> , 2013, 34, 1905-1913.	6.9	19
29	Nd/TiO ₂ Anatase-Brookite Photocatalysts for Photocatalytic Decomposition of Methanol. <i>Frontiers in Chemistry</i> , 2018, 6, 44.	1.8	19
30	Structural, magnetic, optical, and magneto-optical properties of CoFe ₂ O ₄ thin films fabricated by a chemical approach. <i>Materials Research Bulletin</i> , 2019, 117, 96-102.	2.7	19
31	XRD analysis of nanocrystalline anatase powders prepared by various chemical routes: correlations between micro-structure and crystal structure parameters. <i>Powder Diffraction</i> , 2013, 28, S161-S183.	0.4	16
32	Optimization of cerium doping of TiO ₂ for photocatalytic reduction of CO ₂ and photocatalytic decomposition of N ₂ O. <i>Journal of Sol-Gel Science and Technology</i> , 2016, 78, 550-558.	1.1	15
33	Investigation of low Ce amount doped-TiO ₂ prepared by using pressurized fluids in photocatalytic N ₂ O decomposition and CO ₂ reduction. <i>Journal of Sol-Gel Science and Technology</i> , 2017, 84, 158-168.	1.1	15
34	Two Unconventional Precursors to Produce ZnCl ₂ -Based Activated Carbon for Water Treatment Applications. <i>Chemical Engineering and Technology</i> , 2018, 41, 1649-1659.	0.9	15
35	Crystallization kinetics study of cerium titanate CeTi ₂ O ₆ . <i>Journal of Physics and Chemistry of Solids</i> , 2014, 75, 265-270.	1.9	14
36	TiO ₂ and Nitrogen Doped TiO ₂ Prepared by Different Methods; on the (Micro)structure and Photocatalytic Activity in CO ₂ Reduction and N ₂ O Decomposition. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 688-698.	0.9	14

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37	Preparation, characterization and photocatalytic performance of TiO ₂ prepared by using pressurized fluids in CO ₂ reduction and N ₂ O decomposition. <i>Journal of Sol-Gel Science and Technology</i> , 2015, 76, 621-629.	1.1	13
38	A Case Study of Waste Scrap Tyre-Derived Carbon Black Tested for Nitrogen, Carbon Dioxide, and Cyclohexane Adsorption. <i>Molecules</i> , 2020, 25, 4445.	1.7	12
39	Lamellar micelles-mediated synthesis of nanoscale thick sheets of titania. <i>Materials Letters</i> , 2007, 61, 2931-2934.	1.3	11
40	Microstructure-performance study of cerium-doped TiO ₂ prepared by using pressurized fluids in photocatalytic mitigation of N ₂ O. <i>Research on Chemical Intermediates</i> , 2015, 41, 9217-9231.	1.3	11
41	A Comparative Study on Activated Carbons Derived from a Broad Range of Agro-industrial Wastes in Removal of Large-Molecular-Size Organic Pollutants in Aqueous Phase. <i>Water, Air, and Soil Pollution</i> , 2015, 226, 1.	1.1	9
42	Titanium and zirconium-based mixed oxides prepared by using pressurized and supercritical fluids: On novel preparation, microstructure and photocatalytic properties in the photocatalytic reduction of CO ₂ . <i>Catalysis Today</i> , 2017, 287, 52-58.	2.2	9
43	Novel TiO ₂ prepared from titanyl sulphate by using pressurized water processing and its photocatalytic activity evaluation. <i>Materials Research Bulletin</i> , 2017, 95, 30-46.	2.7	9
44	A facile synthesis of well-defined titania nanocrystallites: Study on their growth, morphology and surface properties. <i>Microporous and Mesoporous Materials</i> , 2012, 154, 187-195.	2.2	8
45	Molecular Dimensions and Porous Structure of Activated Carbons for Sorption of Xylene and Isooctane. <i>Chemical Engineering and Technology</i> , 2017, 40, 6-17.	0.9	8
46	A case study on microwave pyrolysis of waste tyres and cocoa pod husk; effect on quantity and quality of utilizable products. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 106917.	3.3	8
47	The influence of structural properties on the adsorption capacities of microwave-assisted biochars for metazachlor removal from aqueous solutions. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 108003.	3.3	8
48	Must the Best Laboratory Prepared Catalyst Also Be the Best in an Operational Application?. <i>Catalysts</i> , 2019, 9, 160.	1.6	7
49	Effect of Nanoparticle Size in Pt/SiO ₂ Catalyzed Nitrate Reduction in Liquid Phase. <i>Nanomaterials</i> , 2021, 11, 195.	1.9	7
50	Revelation of high-adsorption-performance activated carbon for removal of fluoroquinolone antibiotics from water. <i>Biomass Conversion and Biorefinery</i> , 2024, 14, 2585-2599.	2.9	7
51	TiO ₂ @CeO ₂ prepared by using pressurized and supercritical fluids: effect of processing parameters and cerium amount on (micro)structural and morphological properties. <i>Research on Chemical Intermediates</i> , 2015, 41, 9243-9257.	1.3	6
52	Preparation of nanocrystalline titania thin films by using pure and water-modified supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2016, 117, 289-296.	1.6	6
53	Adsorption of As(V), Cd(II) and Pb(II), in Multicomponent Aqueous Systems using Activated Carbons. <i>Water Environment Research</i> , 2017, 89, 846-855.	1.3	6
54	Photocatalytic Oxidation of Methyl Tert-Butyl Ether in Presence of Various Phase Compositions of TiO ₂ . <i>Catalysts</i> , 2020, 10, 35.	1.6	6

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55	Vermiculites from Brazil and Palabora: Structural changes upon heat treatment and influence on the depolymerization of polystyrene. <i>Applied Clay Science</i> , 2020, 192, 105639.	2.6	6
56	Nanostructured TiO ₂ and ZnO prepared by using pressurized hot water and their eco-toxicological evaluation. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	0.8	5
57	Nanostructured ZrO ₂ synthesized by using pressurized and supercritical fluids—Its structural and microstructural evolution and thermal stability. <i>Journal of Supercritical Fluids</i> , 2017, 128, 182-193.	1.6	5
58	Novel synthesis of Zr _x Ti _{1-x} O _n mixed oxides using titanyl sulphate and pressurized hot and supercritical fluids, and their photocatalytic comparison with sol-gel prepared equivalents. <i>Materials Research Bulletin</i> , 2017, 95, 95-103.	2.7	5
59	Photocatalytic Hydrogen Formation from Ammonia in an Aqueous Solution Over Pt-Enriched TiO ₂ —ZrO ₂ Photocatalyst. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 6833-6839.	0.9	4
60	Microstructure, Optical and Photocatalytic Properties of TiO ₂ Thin Films Prepared by Chelating-Agent Assisted Sol-Gel Method. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 504-514.	0.9	4
61	The effect of Zr loading in Zr/TiO ₂ prepared by pressurized hot water on its surface, morphological and photocatalytic properties. <i>Journal of Sol-Gel Science and Technology</i> , 2019, 90, 369-379.	1.1	4
62	The effect of type and concentration of modifier in supercritical carbon dioxide on crystallization of nanocrystalline titania thin films. <i>Journal of Supercritical Fluids</i> , 2018, 133, 211-217.	1.6	3
63	Successful Immobilization of Lanthanides Doped TiO ₂ on Inert Foam for Repeatable Hydrogen Generation from Aqueous Ammonia. <i>Materials</i> , 2020, 13, 1254.	1.3	3
64	Î±-Fe ₂ O ₃ Nanoparticles/Iron-Containing Vermiculite Composites: Structural, Textural, Optical and Photocatalytic Properties. <i>Minerals (Basel, Switzerland)</i> , 2022, 12, 607.	0.8	3
65	Determination of the thickness of polycrystalline thin films by using X-ray methods. <i>Thin Solid Films</i> , 2015, 591, 215-218.	0.8	2
66	Crystallization of Zr _{0.1} Ti _{0.9} O _n mixed oxide by pressurized hot water and its effect on microstructural properties and photoactivity. <i>Journal of Supercritical Fluids</i> , 2018, 141, 39-48.	1.6	2
67	Structural Study of Tailored Titania Thin Layers. <i>Collection of Czechoslovak Chemical Communications</i> , 2008, 73, 1222-1230.	1.0	2
68	Preparation of nanocrystalline TiO ₂ monoliths by using modified supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2018, 137, 93-100.	1.6	1
69	Possibilities and Limits of Texture Properties Characterization. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2008, , 435-440.	0.1	0
70	Preparation and Characterization of Thin Nanocrystalline TiO ₂ Layers. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2008, , 441-446.	0.1	0
71	Study of the adsorption of dyes employed in the food industry by activated carbon based on residual forestry. <i>Journal of Physics: Conference Series</i> , 2019, 1173, 012009.	0.3	0
72	Structural study of ceria-doped TiO ₂ prepared at different conditions. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2015, 71, s380-s380.	0.0	0