

# Lucie Obalová

## List of Publications by Year in descending order

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80  
papers

2,937  
citations

172457

29  
h-index

175258

52  
g-index

81  
all docs

81  
docs citations

81  
times ranked

3025  
citing authors

#	ARTICLE	IF	CITATIONS
1	Role of the Cu content and Ce activating effect on catalytic performance of Cu-Mg-Al and Ce/Cu-Mg-Al oxides in ammonia selective catalytic oxidation. <i>Applied Surface Science</i> , 2022, 573, 151540.	6.1	10
2	An investigation on the N <sub>2</sub> O decomposition activity of Mn Co <sup>1</sup> Co <sub>2</sub> O <sub>4</sub> nanorods prepared by the thermal decomposition of their oxalate precursors. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 93, 279-289.	5.8	14
3	Reaction mechanism of NO direct decomposition over K-promoted Co-Mn-Al mixed oxides – DRIFTS, TPD and transient state studies. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2021, 120, 257-266.	5.3	9
4	Catalytic Decomposition of N <sub>2</sub> O and NO. <i>Catalysts</i> , 2021, 11, 667.	3.5	1
5	Oxygen effect in NO direct decomposition over K/Co-Mg-Mn-Al mixed oxide catalyst – Temperature programmed desorption study. <i>Molecular Catalysis</i> , 2021, 510, 111695.	2.0	4
6	Catalytic Oxidation of Ammonia over Cerium-Modified Copper Aluminium Zinc Mixed Oxides. <i>Materials</i> , 2021, 14, 6581.	2.9	6
7	Nanosheets-nanorods transformation during the non-isothermal decomposition of gadolinium acetate. <i>Ceramics International</i> , 2020, 46, 25467-25477.	4.8	4
8	Antibacterial, Antifungal and Ecotoxic Effects of Ammonium and Imidazolium Ionic Liquids Synthesized in Microwaves. <i>Molecules</i> , 2020, 25, 5181.	3.8	7
9	Direct Decomposition of NO over Co-Mn-Al Mixed Oxides: Effect of Ce and/or K Promoters. <i>Catalysts</i> , 2020, 10, 808.	3.5	4
10	Magnesium Effect in K/Co-Mg-Mn-Al Mixed Oxide Catalyst for Direct NO Decomposition. <i>Catalysts</i> , 2020, 10, 931.	3.5	9
11	K-Modified Co – Mn – Al Mixed Oxide – Effect of Calcination Temperature on N <sub>2</sub> O Conversion in the Presence of H <sub>2</sub> O and NO <sub>x</sub> . <i>Catalysts</i> , 2020, 10, 1134.	3.5	11
12	Effect of support on the catalytic activity of Co <sub>3</sub> O <sub>4</sub> -Cs deposited on open-cell ceramic foams for N <sub>2</sub> O decomposition. <i>Materials Research Bulletin</i> , 2020, 129, 110892.	5.2	18
13	Cu-Mg-Fe-O-(Ce) Complex Oxides as Catalysts of Selective Catalytic Oxidation of Ammonia to Dinitrogen (NH <sub>3</sub> -SCO). <i>Catalysts</i> , 2020, 10, 153.	3.5	14
14	Precipitated K-Promoted Co – Mn – Al Mixed Oxides for Direct NO Decomposition: Preparation and Properties. <i>Catalysts</i> , 2019, 9, 592.	3.5	10
15	Co-Mn-Al Mixed Oxides Promoted by K for Direct NO Decomposition: Effect of Preparation Parameters. <i>Catalysts</i> , 2019, 9, 593.	3.5	18
16	Cobalt mixed oxides deposited on the SiC open-cell foams for nitrous oxide decomposition. <i>Applied Catalysis B: Environmental</i> , 2019, 255, 117745.	20.2	30
17	Must the Best Laboratory Prepared Catalyst Also Be the Best in an Operational Application?. <i>Catalysts</i> , 2019, 9, 160.	3.5	7
18	Magnetically modified nanogold-biosilica composite as an effective catalyst for CO oxidation. <i>Arabian Journal of Chemistry</i> , 2019, 12, 1148-1158.	4.9	5

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19	TiO <sub>2</sub> and Nitrogen Doped TiO <sub>2</sub> Prepared by Different Methods; on the (Micro)structure and Photocatalytic Activity in CO <sub>2</sub> Reduction and N <sub>2</sub> O Decomposition. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 688-698.	0.9	14
20	TiO <sub>2</sub> Processed by pressurized hot solvents as a novel photocatalyst for photocatalytic reduction of carbon dioxide. <i>Applied Surface Science</i> , 2017, 391, 282-287.	6.1	36
21	On the stability of alkali metal promoters in Co mixed oxides during direct NO catalytic decomposition. <i>Molecular Catalysis</i> , 2017, 428, 33-40.	2.0	22
22	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 <sub>2</sub> . <i>Catalysis Today</i> , 2017, 287, 52-58.	4.4	9
23	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.	6.7	31
24	Cobalt oxide catalysts supported on CeO <sub>2</sub> -TiO <sub>2</sub> for ethanol oxidation and N <sub>2</sub> O decomposition. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2017, 121, 121-139.	1.7	7
25	Cobalt Oxides Supported Over Ceria-Zirconia Coated Cordierite Monoliths as Catalysts for Deep Oxidation of Ethanol and N <sub>2</sub> O Decomposition. <i>Catalysis Letters</i> , 2017, 147, 1379-1391.	2.6	17
26	Catalytic activity of cobalt grafted on ordered mesoporous silica materials in N <sub>2</sub> O decomposition and CO oxidation. <i>Molecular Catalysis</i> , 2017, 437, 57-72.	2.0	13
27	Molecular Dimensions and Porous Structure of Activated Carbons for Sorption of Xylene and Isooctane. <i>Chemical Engineering and Technology</i> , 2017, 40, 6-17.	1.5	8
28	Effect of preparation method on catalytic properties of Co-Mn-Al mixed oxides for N <sub>2</sub> O decomposition. <i>Journal of Molecular Catalysis A</i> , 2016, 425, 237-247.	4.8	31
29	Optimization of cerium doping of TiO <sub>2</sub> for photocatalytic reduction of CO <sub>2</sub> and photocatalytic decomposition of N <sub>2</sub> O. <i>Journal of Sol-Gel Science and Technology</i> , 2016, 78, 550-558.	2.4	15
30	Co-Mn-Al mixed oxides as catalysts for ammonia oxidation to N <sub>2</sub> O. <i>Research on Chemical Intermediates</i> , 2016, 42, 2669-2690.	2.7	12
31	K-Doped Co-Mn-Al Mixed Oxide Catalyst for N <sub>2</sub> O Abatement from Nitric Acid Plant Waste Gases: Pilot Plant Studies. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 7076-7084.	3.7	14
32	Transmission Electron Microscopy Observation of Bionanogold Used for Preliminary N <sub>2</sub> O Decomposition Testing. <i>Advanced Science Letters</i> , 2016, 22, 631-636.	0.2	3
33	Catalytic activity of rhodium grafted on ordered mesoporous silica materials modified with aluminum in N <sub>2</sub> O decomposition. <i>Catalysis Today</i> , 2015, 257, 51-58.	4.4	11
34	Advantage of the single pellet string reactor for testing real-size industrial pellets of potassium-doped CoMnAl catalyst for the decomposition of N <sub>2</sub> O. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2015, 115, 651-662.	1.7	10
35	Optimization of Cs content in Co-Mn-Al mixed oxide as catalyst for N <sub>2</sub> O decomposition. <i>Research on Chemical Intermediates</i> , 2015, 41, 9319-9332.	2.7	5
36	Photocatalytic Hydrogen Formation from Ammonia in an Aqueous Solution Over Pt-Enriched TiO <sub>2</sub> -ZrO <sub>2</sub> Photocatalyst. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 6833-6839.	0.9	4

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37	Novel cerium doped titania catalysts for photocatalytic decomposition of ammonia. Applied Catalysis B: Environmental, 2015, 178, 108-116.	20.2	63
38	Advantages of stainless steel sieves as support for catalytic N <sub>2</sub> O decomposition over K-doped Co <sub>3</sub> O <sub>4</sub> . Catalysis Today, 2015, 257, 2-10.	4.4	22
39	Photocatalytic H <sub>2</sub> generation from aqueous ammonia solution using ZnO photocatalysts prepared by different methods. International Journal of Hydrogen Energy, 2015, 40, 8530-8538.	7.1	34
40	Effect of precursor synthesis on catalytic activity of Co <sub>3</sub> O <sub>4</sub> in N <sub>2</sub> O decomposition. Catalysis Today, 2015, 257, 18-25.	4.4	71
41	Microstructure-performance study of cerium-doped TiO <sub>2</sub> prepared by using pressurized fluids in photocatalytic mitigation of N <sub>2</sub> O. Research on Chemical Intermediates, 2015, 41, 9217-9231.	2.7	11
42	Preparation, characterization and photocatalytic performance of TiO <sub>2</sub> prepared by using pressurized fluids in CO <sub>2</sub> reduction and N <sub>2</sub> O decomposition. Journal of Sol-Gel Science and Technology, 2015, 76, 621-629.	2.4	13
43	Supported Co-Mn-Al mixed oxides as catalysts for N <sub>2</sub> O decomposition. Comptes Rendus Chimie, 2015, 18, 1114-1122.	0.5	12
44	Photocatalytic and photochemical decomposition of N <sub>2</sub> O on ZnS-MMT catalyst. Catalysis Today, 2014, 230, 61-66.	4.4	20
45	Sol-gel derived Pd supported TiO <sub>2</sub> -ZrO <sub>2</sub> and TiO <sub>2</sub> photocatalysts; their examination in photocatalytic reduction of carbon dioxide. Catalysis Today, 2014, 230, 20-26.	4.4	38
46	Catalytic decomposition and reduction of N <sub>2</sub> O over micro-mesoporous materials containing Beta zeolite nanoparticles. Applied Catalysis B: Environmental, 2014, 146, 112-122.	20.2	50
47	On sol-gel derived Au-enriched TiO <sub>2</sub> and TiO <sub>2</sub> -ZrO <sub>2</sub> photocatalysts and their investigation in photocatalytic reduction of carbon dioxide. Applied Surface Science, 2013, 285, 688-696.	6.1	37
48	Alkali metals as promoters in Co-Mn-Al mixed oxide for N <sub>2</sub> O decomposition. Applied Catalysis A: General, 2013, 462-463, 227-235.	4.3	62
49	Photocatalytic reactions of nanocomposite of ZnS nanoparticles and montmorillonite. Applied Surface Science, 2013, 275, 369-373.	6.1	16
50	Photocatalytic decomposition of nitrous oxide using TiO <sub>2</sub> and Ag-TiO <sub>2</sub> nanocomposite thin films. Catalysis Today, 2013, 209, 170-175.	4.4	36
51	The balancing of VOC concentration fluctuations by adsorption/desorption process on activated carbon. Adsorption, 2013, 19, 667-673.	3.0	2
52	Effect of calcination temperature and calcination time on the kaolinite/tio <sub>2</sub> composite for photocatalytic reduction of CO <sub>2</sub> . GeoScience Engineering, 2012, 58, 10-22.	0.3	21
53	Influence of Reaction Medium on CO <sub>2</sub> Photocatalytic Reduction Yields Over ZnS-MMT / Vliv Reakčního Prostředí na Na <sub>1/2</sub> Ti <sub>3/4</sub> ky Fotokatalytická Redukce CO <sub>2</sub> V Přítomnosti ZnS-MMT. GeoScience Engineering, 2012, 58, 34-42.		
54	Photocatalytic decomposition of N <sub>2</sub> O on Ag-TiO <sub>2</sub> . Catalysis Today, 2012, 191, 134-137.	4.4	30

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55	N <sub>2</sub> O catalytic decomposition – From laboratory experiment to industry reactor. <i>Catalysis Today</i> , 2012, 191, 116-120.	4.4	18
56	A comparative study of TiO <sub>2</sub> -supported and bulk Co–Mn–Al catalysts for N <sub>2</sub> O decomposition. <i>Catalysis Today</i> , 2012, 191, 112-115.	4.4	10
57	Titania supported Co–Mn–Al oxide catalysts in total oxidation of ethanol. <i>Catalysis Today</i> , 2012, 179, 164-169.	4.4	10
58	Electronic nature of potassium promotion effect in Co–Mn–Al mixed oxide on the catalytic decomposition of N <sub>2</sub> O. <i>Catalysis Communications</i> , 2011, 12, 1055-1058.	3.3	42
59	The Possibility of Balancing VOC Concentration Fluctuations by a Flow through an Activated Carbon Bed. <i>Adsorption Science and Technology</i> , 2011, 29, 157-168.	3.2	4
60	Wavelength Effect on Photocatalytic Reduction of CO <sub>2</sub> by Ag/TiO <sub>2</sub> Catalyst. <i>Chinese Journal of Catalysis</i> , 2011, 32, 812-815.	14.0	47
61	Influence of reactor geometry on the yield of CO <sub>2</sub> photocatalytic reduction. <i>Catalysis Today</i> , 2011, 176, 212-214.	4.4	41
62	N <sub>2</sub> O catalytic decomposition and temperature programmed desorption tests on alkali metals promoted Co–Mn–Al mixed oxide. <i>Catalysis Today</i> , 2011, 176, 208-211.	4.4	19
63	Simulation of N <sub>2</sub> O Abatement in Waste Gases by Its Decomposition over a K-Promoted Co-Mn-Al Mixed Oxide Catalyst. <i>Chinese Journal of Catalysis</i> , 2011, 32, 816-820.	14.0	12
64	Comparison of the pure TiO <sub>2</sub> and kaolinite/TiO <sub>2</sub> composite as catalyst for CO <sub>2</sub> photocatalytic reduction. <i>Catalysis Today</i> , 2011, 161, 105-109.	4.4	100
65	The balancing of NO concentration fluctuations by adsorption/desorption process on activated carbon. <i>Separation and Purification Technology</i> , 2011, 78, 245-248.	7.9	3
66	Effect of silver doping on the TiO <sub>2</sub> for photocatalytic reduction of CO <sub>2</sub> . <i>Applied Catalysis B: Environmental</i> , 2010, 96, 239-244.	20.2	314
67	Effect of promoters in Co–Mn–Al mixed oxide catalyst on N <sub>2</sub> O decomposition. <i>Chemical Engineering Journal</i> , 2010, 160, 480-487.	12.7	72
68	Effect of hydrothermal treatment on properties of Ni–Al layered double hydroxides and related mixed oxides. <i>Journal of Solid State Chemistry</i> , 2009, 182, 27-36.	2.9	92
69	Effect of TiO <sub>2</sub> particle size on the photocatalytic reduction of CO <sub>2</sub> . <i>Applied Catalysis B: Environmental</i> , 2009, 89, 494-502.	20.2	460
70	Effect of potassium in calcined Co–Mn–Al layered double hydroxide on the catalytic decomposition of N <sub>2</sub> O. <i>Applied Catalysis B: Environmental</i> , 2009, 90, 132-140.	20.2	83
71	N <sub>2</sub> O catalytic decomposition – effect of pelleting pressure on activity of Co-Mn-Al mixed oxide catalysts. <i>Chemical Papers</i> , 2009, 63, .	2.2	12
72	Catalytic reduction of nitrous oxide with carbon monoxide over calcined Co–Mn–Al hydrotalcite. <i>Catalysis Today</i> , 2008, 137, 385-389.	4.4	22

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73	Photocatalytic reduction of CO <sub>2</sub> over TiO <sub>2</sub> based catalysts. <i>Chemical Papers</i> , 2008, 62, 1-9.	2.2	165
74	Effect of Temperature, Pressure and Volume of Reacting Phase on Photocatalytic CO <sub>2</sub> Reduction on Suspended Nanocrystalline TiO <sub>2</sub> . <i>Collection of Czechoslovak Chemical Communications</i> , 2008, 73, 1192-1204.	1.0	41
75	Application of Calcined Layered Double Hydroxides as Catalysts for Abatement of N <sub>2</sub> O Emissions. <i>Collection of Czechoslovak Chemical Communications</i> , 2008, 73, 1045-1060.	1.0	4
76	Effect of Mn/Al ratio in Co-Mn-Al mixed oxide catalysts prepared from hydrotalcite-like precursors on catalytic decomposition of N <sub>2</sub> O. <i>Catalysis Today</i> , 2007, 119, 233-238.	4.4	73
77	Kinetic analysis of N <sub>2</sub> O decomposition over calcined hydrotalcites. <i>Applied Catalysis B: Environmental</i> , 2007, 70, 353-359.	20.2	53
78	Structure-activity relationship in the N <sub>2</sub> O decomposition over Ni-(Mg)-Al and Ni-(Mg)-Mn mixed oxides prepared from hydrotalcite-like precursors. <i>Journal of Molecular Catalysis A</i> , 2006, 248, 210-219.	4.8	52
79	Mixed oxides obtained from Co and Mn containing layered double hydroxides: Preparation, characterization, and catalytic properties. <i>Journal of Solid State Chemistry</i> , 2006, 179, 812-823.	2.9	116
80	Catalytic decomposition of nitrous oxide over catalysts prepared from Co/Mg-Mn/Al hydrotalcite-like compounds. <i>Applied Catalysis B: Environmental</i> , 2005, 60, 289-297.	20.2	75