

# Sara Morandi

## List of Publications by Year in descending order

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86  
papers

1,820  
citations

236925

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315739

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all docs

86  
docs citations

86  
times ranked

2405  
citing authors

#	ARTICLE	IF	CITATIONS
1	Metal Oxide Gas Sensors from Design to Real Applications: The Case Study of $Ti_xSn_{1-x}O_2$ Solid Solutions. Lecture Notes in Electrical Engineering, 2023, , 92-97.	0.4	1
2	DFT and kinetic evidences of the preferential CO oxidation pattern of manganese dioxide catalysts in hydrogen stream (PROX). Applied Catalysis B: Environmental, 2022, 300, 120715.	20.2	14
3	Gas phase vs. liquid phase: monitoring $H_2$ and CO adsorption phenomena on $Pt/Al_2O_3$ by IR spectroscopy. Catalysis Science and Technology, 2022, 12, 1359-1367.	4.1	5
4	Supported PdZn nanoparticles for selective CO <sub>2</sub> conversion, through the grafting of a heterobimetallic complex on CeZrOx. Applied Catalysis A: General, 2022, 635, 118568.	4.3	4
5	Investigation of the key parameters for gas sensing through comparison of electrospun and sol-gel semiconducting oxides. Ceramics International, 2022, 48, 20948-20960.	4.8	7
6	Low-temperature Pd/Fe NOx adsorbers: Operando FT-IR spectroscopy and performance analysis. Catalysis Today, 2021, 360, 317-325.	4.4	26
7	Development of an easy portable procedure for on-site determination of mercury and methylmercury. Food Chemistry, 2021, 342, 128347.	8.2	6
8	Tailoring manganese oxide catalysts for the total oxidation of pollutants in gas and liquid phase. Applied Catalysis A: General, 2021, 610, 117917.	4.3	6
9	CO <sub>2</sub> hydrogenation to methanol and hydrocarbons over bifunctional Zn-doped $ZrO_2$ /zeolite catalysts. Catalysis Science and Technology, 2021, 11, 1249-1268.	4.1	33
10	Characterization of the Evolution of Noble Metal Particles in a Commercial Three-Way Catalyst: Correlation between Real and Simulated Ageing. Catalysts, 2021, 11, 247.	3.5	10
11	Steering polymer growth by molding nanochannels: 1,5-hexadiene polymerization in high silica mordenite. Microporous and Mesoporous Materials, 2021, 311, 110728.	4.4	7
12	Growth Mechanisms of ZnO Micro-Nanomorphologies and Their Role in Enhancing Gas Sensing Properties. Sensors, 2021, 21, 1331.	3.8	14
13	Nanosized SnO <sub>2</sub> Prepared by Electrospinning: Influence of the Polymer on Both Morphology and Microstructure. Polymers, 2021, 13, 977.	4.5	12
14	Optical Sensing of Molecular Oxygen (O <sub>2</sub> ) via Metal Oxide Photoluminescence: A Comparative Study of TiO <sub>2</sub> , SnO <sub>2</sub> and ZnO. Chemosensors, 2021, 9, 163.	3.6	2
15	Multifunctional Catalyst Combination for the Direct Conversion of CO <sub>2</sub> to Propane. JACS Au, 2021, 1, 1719-1732.	7.9	25
16	(Ti,Sn) Solid Solution Based Gas Sensors for New Monitoring of Hydraulic Oil Degradation. Materials, 2021, 14, 605.	2.9	11
17	Deactivation of Industrial $Pd/Al_2O_3$ Catalysts by Ethanol: A Spectroscopic Study. ChemCatChem, 2021, 13, 900-908.	3.7	5
18	Structural and mechanistic insights into low-temperature CO oxidation over a prototypical high entropy oxide by Cu L-edge operando soft X-ray absorption spectroscopy. Physical Chemistry Chemical Physics, 2021, 23, 26575-26584.	2.8	17

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19	Semiconductor Oxide Gas Sensors: Correlation between Conduction Mechanisms and Their Sensing Performances. , 2021, 5, .		0
20	Thermal behavior of high silica mordenite. Microporous and Mesoporous Materials, 2020, 294, 109882.	4.4	4
21	Unraveling the effect of ZrO <sub>2</sub> modifiers on the nature of active sites on AuRu/ZrO <sub>2</sub> catalysts for furfural hydrogenation. Sustainable Energy and Fuels, 2020, 4, 1469-1480.	4.9	10
22	Operational functionalities of air-quality W Sn metal-oxide sensors correlating semiconductor defect levels and surface potential barriers. Science of the Total Environment, 2020, 706, 135731.	8.0	11
23	Tunable formation of nanostructured SiC/SiOC core-shell for selective detection of SO <sub>2</sub> . Sensors and Actuators B: Chemical, 2020, 305, 127485.	7.8	25
24	Dynamics of Reactive Species and Reactant-Induced Reconstruction of Pt Clusters in Pt/Al <sub>2</sub> O <sub>3</sub> Catalysts. ACS Catalysis, 2019, 9, 7124-7136.	11.2	31
25	Pathways for N <sub>2</sub> O Formation/Reduction During Operation of Commercial LNT Catalysts. Topics in Catalysis, 2019, 62, 18-26.	2.8	0
26	Micro-TiO <sub>2</sub> coated glass surfaces safely abate drugs in surface water. Journal of Hazardous Materials, 2019, 363, 328-334.	12.4	22
27	Zeolite/dye hybrid composites: Organization of photoactive azobenzene molecules inside AlPO <sub>4</sub> -5. Microporous and Mesoporous Materials, 2018, 268, 25-30.	4.4	5
28	Looking for the active hydrogen species in a 5Åwt% Pt/C catalyst: a challenge for inelastic neutron scattering. Faraday Discussions, 2018, 208, 227-242.	3.2	20
29	Micro-sized TiO <sub>2</sub> as photoactive catalyst coated on industrial porcelain grÃ's tiles to photodegrade drugs in water. Environmental Science and Pollution Research, 2018, 25, 20348-20353.	5.3	17
30	New insights on the adsorption, thermal decomposition and reduction of NO <sub>x</sub> over Pt- and Ba-based catalysts. Applied Catalysis B: Environmental, 2018, 224, 249-263.	20.2	42
31	Selective hydrogenation of cinnamaldehyde using Pd catalysts supported on Mg/Al mixed oxides: Influence of the Pd incorporation method. Canadian Journal of Chemical Engineering, 2018, 96, 297-306.	1.7	7
32	Novel Methodology Based on Thick Film Gas Sensors to Monitor the Hydraulic Oil Ageing. Proceedings (mdpi), 2018, 2, .	0.2	0
33	W-Sn Mixed Oxides and ZnO to Detect NO <sub>x</sub> and Ozone in Atmosphere. Proceedings (mdpi), 2018, 2, .	0.2	0
34	Dynamics and Selectivity of N <sub>2</sub> O Formation/Reduction During Regeneration Phase of Pt-Based Catalysts. Topics in Catalysis, 2018, 61, 1672-1683.	2.8	6
35	Low Temperature NO <sub>x</sub> Adsorption Study on Pd-Promoted Zeolites. Topics in Catalysis, 2018, 61, 2021-2034.	2.8	40
36	New Insights on the Release and Reduction of NO <sub>x</sub> Stored over PGM-Based LNT Catalysts. Topics in Catalysis, 2017, 60, 250-254.	2.8	3

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37	Facile synthesis of ZnO nano-structures: Morphology influence on electronic properties. <i>Sensors and Actuators B: Chemical</i> , 2017, 249, 581-589.	7.8	30
38	Aspirin and paracetamol removal using a commercial micro-sized TiO <sub>2</sub> catalyst in deionized and tap water. <i>Environmental Science and Pollution Research</i> , 2017, 24, 12646-12654.	5.3	26
39	Removal of NO <sub>x</sub> and soot over Ce/Zr/K/Me (Me = Fe, Pt, Ru, Au) oxide catalysts. <i>Applied Catalysis B: Environmental</i> , 2017, 201, 318-330.	20.2	53
40	Ultrasensitive Gas Sensors Based on Electrospun TiO <sub>2</sub> and ZnO. <i>Proceedings (mdpi)</i> , 2017, 1, 485.	0.2	1
41	Ultrasensitive Gas Sensors Based on Electrospun TiO <sub>2</sub> and ZnO. <i>Proceedings (mdpi)</i> , 2017, 1, .	0.2	2
42	Shedding light on precursor and thermal treatment effects on the nanostructure of electrospun TiO <sub>2</sub> fibers. <i>Nano Structures Nano Objects</i> , 2016, 7, 49-55.	3.5	7
43	Chemoresistive Gas Sensors for Sub-ppm Acetone Detection. <i>Procedia Engineering</i> , 2016, 168, 485-488.	1.2	16
44	In-situ infrared spectroscopy as a non-invasive technique to study carbon sequestration at high pressure and high temperature. <i>International Journal of Greenhouse Gas Control</i> , 2016, 51, 126-135.	4.6	3
45	Cation Dependent Carbonate Speciation and the Effect of Water. <i>Journal of Physical Chemistry C</i> , 2016, 120, 17570-17578.	3.1	6
46	Copper NPs decorated titania: A novel synthesis by high energy US with a study of the photocatalytic activity under visible light. <i>Ultrasonics Sonochemistry</i> , 2016, 31, 295-301.	8.2	25
47	Formaldehyde sensing mechanism of SnO <sub>2</sub> nanowires grown on-chip by sputtering techniques. <i>RSC Advances</i> , 2016, 6, 18558-18566.	3.6	15
48	Recovery of hexavalent chromium from water using photoactive TiO <sub>2</sub> -montmorillonite under sunlight. <i>Mediterranean Journal of Chemistry</i> , 2016, 5, 442-449.	0.7	4
49	Nano and micro-TiO <sub>2</sub> for the photodegradation of ethanol: experimental data and kinetic modelling. <i>RSC Advances</i> , 2015, 5, 53419-53425.	3.6	37
50	The Role of the Nano/Microstructure in the Case of the Photodegradation of Two Model VOC Pollutants Using Commercial TiO <sub>2</sub> . <i>Energy and Environment Focus</i> , 2015, 4, 226-231.	0.3	1
51	Photo-mineralization of noxious o-toluidine water pollutant by nano-ZnO: The role of the oxide surface texture on the kinetic path. <i>Applied Catalysis B: Environmental</i> , 2015, 178, 233-240.	20.2	12
52	Pigmentary TiO <sub>2</sub> : A challenge for its use as photocatalyst in NO <sub>x</sub> air purification. <i>Chemical Engineering Journal</i> , 2015, 261, 76-82.	12.7	46
53	Surface decoration of commercial micro-sized TiO <sub>2</sub> by means of high energy ultrasound: A way to enhance its photocatalytic activity under visible light. <i>Applied Catalysis B: Environmental</i> , 2015, 178, 124-132.	20.2	31
54	The influence of CO <sub>2</sub> and H <sub>2</sub> O on the storage properties of Pt-Ba/Al <sub>2</sub> O <sub>3</sub> LNT catalyst studied by FT-IR spectroscopy and transient microreactor experiments. <i>Catalysis Today</i> , 2014, 231, 116-124.	4.4	29

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55	(Ti,Sn) solid solutions as functional materials for gas sensing. Sensors and Actuators B: Chemical, 2014, 194, 195-205.	7.8	25
56	Photocatalytic degradation of dyes in water with micro-sized TiO <sub>2</sub> as powder or coated on porcelain-gr <sup>Å</sup> s tiles. Journal of Photochemistry and Photobiology A: Chemistry, 2014, 280, 27-31.	3.9	46
57	<i>n</i> -Heptane As a Reducing Agent in the NO <sub>x</sub> Removal over a Pt <sup>Å</sup> Ba/Al <sub>2</sub> O <sub>3</sub> NSR Catalyst. ACS Catalysis, 2014, 4, 3261-3272.	11.2	10
58	Photoactive TiO <sub>2</sub> -montmorillonite composite for degradation of organic dyes in water. Journal of Photochemistry and Photobiology A: Chemistry, 2014, 295, 57-63.	3.9	103
59	Effect of water and ammonia on surface species formed during NO <sub>x</sub> storage-reduction cycles over Pt <sup>Å</sup> K/Al <sub>2</sub> O <sub>3</sub> and Pt <sup>Å</sup> Ba/Al <sub>2</sub> O <sub>3</sub> catalysts. Physical Chemistry Chemical Physics, 2013, 15, 13409.	2.8	18
60	Properties of NiO sputtered thin films and modeling of their sensing mechanism under formaldehyde atmospheres. Acta Materialia, 2013, 61, 1146-1153.	7.9	62
61	FTIR and Transient Reactivity Experiments of the Reduction by H <sub>2</sub> , CO and HCs of NO <sub>x</sub> Stored Over Pt <sup>Å</sup> Ba/Al <sub>2</sub> O <sub>3</sub> LNTs. Topics in Catalysis, 2013, 56, 193-200.	2.8	6
62	FT-IR characterization of supported Ni-catalysts: Influence of different supports on the metal phase properties. Catalysis Today, 2012, 197, 38-49.	4.4	31
63	Mesoporous In <sub>2</sub> O <sub>3</sub> : Photoreduction and Gas-Sensing Properties. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2012, 638, 1563-1563.	1.2	1
64	Photoreduction of Mesoporous In <sub>2</sub> O <sub>3</sub> : Mechanistic Model and Utility in Gas Sensing. Chemistry - A European Journal, 2012, 18, 8216-8223.	3.3	61
65	Supported Ni catalysts prepared by intercalation of Layered Double Hydroxides: Investigation of acid-base properties and nature of Ni phases. Microporous and Mesoporous Materials, 2012, 147, 178-187.	4.4	15
66	The NO <sub>x</sub> Reduction by CO on a Pt <sup>Å</sup> K/Al <sub>2</sub> O <sub>3</sub> Lean NO <sub>x</sub> Trap Catalyst. Journal of Physical Chemistry C, 2011, 115, 1277-1286.	3.1	22
67	Catalytic behaviour of hybrid LNT/SCR systems: Reactivity and in situ FTIR study. Journal of Catalysis, 2011, 282, 128-144.	6.2	65
68	Reduction by CO of NO <sub>x</sub> species stored onto Pt <sup>Å</sup> K/Al <sub>2</sub> O <sub>3</sub> and Pt <sup>Å</sup> Ba/Al <sub>2</sub> O <sub>3</sub> lean NO <sub>x</sub> traps. Catalysis Today, 2011, 176, 399-403.	4.4	16
69	Electrical and spectroscopic analysis in nanostructured SnO <sub>2</sub> : Long-term-resistance drift is due to in-diffusion. Journal of Applied Physics, 2011, 110, .	2.5	19
70	Alkaline- and alkaline-earth oxides based Lean NO <sub>x</sub> Traps: Effect of the storage component on the catalytic reactivity. Chemical Engineering Journal, 2010, 161, 416-423.	12.7	45
71	Reaction pathway of the reduction by CO under dry conditions of NO <sub>x</sub> species stored onto PtBa/Al <sub>2</sub> O <sub>3</sub> Lean NO <sub>x</sub> Trap catalysts. Journal of Catalysis, 2010, 274, 163-175.	6.2	34
72	The NO <sub>x</sub> storage-reduction on PtK/Al <sub>2</sub> O <sub>3</sub> Lean NO <sub>x</sub> Trap catalyst. Journal of Catalysis, 2010, 276, 335-350.	6.2	51

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73	Pt <sup>2+</sup> /Al <sub>2</sub> O <sub>3</sub> NSR Catalysts: Characterization of Morphological, Structural and Surface Properties. Journal of Physical Chemistry C, 2010, 114, 1127-1138.	3.1	44
74	(Ti, Sn)O <sub>2</sub> solid solutions for gas sensing: A systematic approach by different techniques for different calcination temperature and molar composition. Sensors and Actuators B: Chemical, 2009, 139, 329-339.	7.8	33
75	Electrical and spectroscopic properties of Ti <sub>0.2</sub> Sn <sub>0.8</sub> O <sub>2</sub> solid solution for gas sensing. Thin Solid Films, 2009, 517, 6176-6183.	1.8	30
76	Structural and spectroscopic characterization of Mo <sub>1-x</sub> W <sub>x</sub> O <sub>3</sub> mixed oxides. Journal of Solid State Chemistry, 2009, 182, 3342-3352.	2.9	21
77	(Ti, Sn)O <sub>2</sub> binary solid solutions for gas sensing: Spectroscopic, optical and transport properties. Sensors and Actuators B: Chemical, 2008, 130, 38-45.	7.8	40
78	FT-IR investigation of NO <sub>x</sub> storage properties of Pt/Mg(Al)O and Pt/Cu/Mg(Al)O catalysts obtained from hydrotalcite compounds. Microporous and Mesoporous Materials, 2008, 107, 31-38.	4.4	19
79	Characterization of Pt,Sn/Mg(Al)O Catalysts for Light Alkane Dehydrogenation by FT-IR Spectroscopy and Catalytic Measurements. Journal of Physical Chemistry C, 2007, 111, 14732-14742.	3.1	93
80	Synthesis and characterization of Pt/Mg(Al)O catalysts obtained from layered double hydroxides by different routes. Microporous and Mesoporous Materials, 2007, 103, 48-56.	4.4	20
81	Surface barrier modulation and diffuse reflectance spectroscopy of MoO <sub>3</sub> /WO <sub>3</sub> thick films. Sensors and Actuators B: Chemical, 2006, 118, 94-97.	7.8	6
82	Synthesis and characterisation of gas sensor materials obtained from Pt/Zn/Al layered double hydroxides. Sensors and Actuators B: Chemical, 2006, 118, 215-220.	7.8	29
83	Cr/Sn oxide thin films: Electrical and spectroscopic characterisation with CO, NO <sub>2</sub> , NH <sub>3</sub> and ethanol. Sensors and Actuators B: Chemical, 2006, 118, 142-148.	7.8	14
84	FT-IR and UV-Vis-NIR characterisation of pure and mixed MoO <sub>3</sub> and WO <sub>3</sub> thin films. Thin Solid Films, 2005, 490, 74-80.	1.8	21
85	MoO <sub>3</sub> /WO <sub>3</sub> mixed oxide powder and thin films for gas sensing devices: A spectroscopic characterisation. Sensors and Actuators B: Chemical, 2005, 111-112, 28-35.	7.8	19
86	A New Frontier of Photocatalysis Employing Micro-Sized TiO <sub>2</sub> : Air/Water Pollution Abatement and Self-Cleaning/ Antibacterial Applications. , 0, , .		9