Ioannis V Yentekakis

List of Publications by Year
in descending order

115 papers	5,057 citations	61984 43 h-index	95266 68 g-index
121 all docs	121 docs citations	121 times ranked	2619 citing authors

#	Article	IF	Citations
1	Non-faradaic electrochemical modification of catalytic activity: A status report. Catalysis Today, 1992, 11, 303-438.	4.4	336
2	A review of recent efforts to promote dry reforming of methane (DRM) to syngas production via bimetallic catalyst formulations. Applied Catalysis B: Environmental, 2021, 296, 120210.	20.2	182
3	Effect of support oxygen storage capacity on the catalytic performance of Rh nanoparticles for CO_2 reforming of methane. Applied Catalysis B: Environmental, 2019, 243, 490-501.	20.2	178
4	An in depth investigation of deactivation through carbon formation during the biogas dry reforming reaction for Ni supported on modified with CeO_2 and La_2O_3 zirconia catalysts. International Journal of Hydrogen Energy, 2018, 43, 18955-18976.	7.1	165
5	Syngas production via the biogas dry reforming reaction over Ni supported on zirconia modified with CeO 2 or La 2 O 3 catalysts. International Journal of Hydrogen Energy, 2017, 42, 13724-13740.	7.1	160
6	Highly selective and stable nickel catalysts supported on ceria promoted with Sm_2O_3, Pr_2O_3 and MgO for the CO_2 methanation reaction. Applied Catalysis B: Environmental, 2021, 282, 119562.	20.2	149
7	Methane to Ethylene with 85 Percent Yield in a Gas Recycle Electrocatalytic Reactor-Separator. Science, 1994, 264, 1563-1566.	12.6	140
8	In Situ controlled promotion of catalyst surfaces via NEMCA: The effect of Na on the Pt-catalyzed CO oxidation. Journal of Catalysis, 1994, 146, 292-305.	6.2	121
9	The effect of electrochemical oxygen pumping on the steady-state and oscillatory behavior of CO oxidation on polycrystalline Pt. Journal of Catalysis, 1988, 111, 170-188.	6.2	107
10	Development of a Ceâ€“Zrâ€“La modified Pt/Î³-Al2O3 TWCsâ€™ washcoat: Effect of synthesis procedure on catalytic behaviour and thermal durability. Applied Catalysis B: Environmental, 2009, 90, 162-174.	20.2	105
11	The Role of Alkali and Alkaline Earth Metals in the CO_2 Methanation Reaction and the Combined Capture and Methanation of CO_2. Catalysts, 2020, 10, 812.	3.5	97
12	Bimetallic Ni-Based Catalysts for CO_2 Methanation: A Review. Nanomaterials, 2021, 11, 28.	4.1	95
13	Catalytic and electrocatalytic behavior of Ni-based cermet anodes under internal dry reforming of CH_4+CO_2 mixtures in SOFCs. Solid State Ionics, 2006, 177, 2119-2123.	2.7	88
14	In situ DRIFTS study of the effect of structure (CeO2â€“La2O3) and surface (Na) modifiers on the catalytic and surface behaviour of Pt/Î³-Al2O3 catalyst under simulated exhaust conditions. Applied Catalysis B: Environmental, 2008, 84, 715-722.	20.2	86
15	In SituElectrochemical Promotion by Sodium of the Platinum-Catalyzed Reduction of NO by Propene. Journal of Physical Chemistry B, 1997, 101, 3759-3768.	2.6	84
16	Biogas Management: Advanced Utilization for Production of Renewable Energy and Added-value Chemicals. Frontiers in Environmental Science, 2017, 5, .	3.3	83
17	Highly selective and stable Ni/La-M (M=Sm, Pr, and Mg)-CeO_2 catalysts for CO_2 methanation. Journal of CO_2 Utilization, 2021, 51, 101618.	6.8	78
18	Non-Faradaic Electrochemical Modification of Catalytic Activity. Journal of Catalysis, 1995, 154, 124-136.	6.2	77

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19	Non-Faradaic Electrochemical Modification of Catalytic Activity. Journal of Catalysis, 1996, 159, 189-203.	6.2	75
20	Support-induced promotional effects on the activity of automotive exhaust catalysts1. The case of oxidation of light hydrocarbons (C2H4). Applied Catalysis B: Environmental, 1997, 14, 161-173.	20.2	75
21	Strong promotional effects of Li, K, Rb and Cs on the Pt-catalysed reduction of NO by propene. Applied Catalysis B: Environmental, 2001, 29, 103-113.	20.2	75
22	Promotion by Sodium in Emission Control Catalysis: A Kinetic and Spectroscopic Study of the Pd-Catalyzed Reduction of NO by Propene. Journal of Catalysis, 1998, 176, 82-92.	6.2	71
23	Electrochemical Promotion by Na of the Platinum-Catalyzed Reaction between CO and NO. Journal of Catalysis, 1996, 161, 471-479.	6.2	70
24	Extraordinarily effective promotion by sodium in emission control catalysis: NO reduction by propene over Na-promoted Pt/Î³-Al2O3. Applied Catalysis B: Environmental, 1999, 22, 123-133.	20.2	69
25	Chemical Cogeneration in Solid Electrolyte Cells: The Oxidation of to. Journal of the Electrochemical Society, 1989, 136, 996-1002.	2.9	68
26	Open- and closed-circuit study of an intermediate temperature SOFC directly fueled with simulated biogas mixtures. Journal of Power Sources, 2006, 160, 422-425.	7.8	67
27	Strong Promotion by Na of Pt/Î³-Al2O3 Catalysts Operated under Simulated Exhaust Conditions. Journal of Catalysis, 2000, 193, 330-337.	6.2	64
28	Stabilization of catalyst particles against sintering on oxide supports with high oxygen ion lability exemplified by Ir-catalyzed decomposition of N2O. Applied Catalysis B: Environmental, 2016, 192, 357-364.	20.2	64
29	Solid electrolyte aided study of the mechanism of CO oxidation on polycrystalline platinum. Journal of Catalysis, 1988, 111, 152-169.	6.2	61
30	Study of the NEMCA effect in a single-pellet catalytic reactor. Journal of Catalysis, 1992, 137, 278-283.	6.2	58
31	Support mediated promotional effects of rare earth oxides (CeO2 and La2O3) on N2O decomposition and N2O reduction by CO or C3H6 over Pt/Al2O3 structured catalysts. Applied Catalysis B: Environmental, 2012, 123-124, 405-413.	20.2	58
32	The Reduction of NO by Propene over Ba-Promoted Pt/Î³-Al2O3 Catalysts. Journal of Catalysis, 2001, 198, 142-150.	6.2	56
33	A comparative study of the C3H6+NO+O2, C3H6+O2 and NO+O2 reactions in excess oxygen over Na-modified Pt/Î³-Al2O3 catalysts. Applied Catalysis B: Environmental, 2005, 56, 229-239.	20.2	56
34	An investigation of the role of Zr and La dopants into Ce1â˜'â˜'Zr La O enriched Î³-Al2O3 TWC washcoats. Applied Catalysis A: General, 2010, 382, 73-84.	4.3	54
35	Catalysis, electrocatalysis and electrochemical promotion of the steam reforming of methane over Ni film and Ni-YSZ cermet anodes. Ionics, 1995, 1, 491-498.	2.4	53
36	Cross-flow, solid-state electrochemical reactors: a steady state analysis. Industrial & Engineering Chemistry Fundamentals, 1985, 24, 316-324.	0.7	52

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37	Non-faradaic electrochemical modification of catalytic activity in solid electrolyte cells. Applied Physics A: Solids and Surfaces, 1989, 49, 95-103.	1.4	51
38	Long-term operation stability tests of intermediate and high temperature Ni-based anodes' SOFCs directly fueled with simulated biogas mixtures. International Journal of Hydrogen Energy, 2012, 37, 16680-16685.	7.1	51
39	Dry Reforming of Methane: Catalytic Performance and Stability of Ir Catalysts Supported on Î³-Al2O3, Zr0.92Y0.08O2â^'Î´ (YSZ) or Ce0.9Gd0.1O2â^'Î´ (GDC) Supports. Topics in Catalysis, 2015, 58, 1228-1241.	2.8	50
40	Electrochemical promotion in catalysis: non-faradaic electrochemical modification of catalytic activity. Electrochimica Acta, 1994, 39, 1849-1855.	5.2	47
41	In SituControlled Promotion of Catalyst Surfaces via NEMCA: The Effect of Na on the Pt-Catalyzed NO Reduction by H2. Journal of Catalysis, 1997, 166, 218-228.	6.2	45
42	Electricity production from wastewater treatment via a novel biogas-SOFC aided process. Solid State Ionics, 2008, 179, 1521-1525.	2.7	44
43	Nitrous oxide decomposition over Al2O3 supported noble metals (Pt, Pd, Ir): Effect of metal loading and feed composition. Journal of Environmental Chemical Engineering, 2015, 3, 815-821.	6.7	43
44	Oxidative Thermal Sintering and Redispersion of Rh Nanoparticles on Supports with High Oxygen Ion Lability. Catalysts, 2019, 9, 541.	3.5	43
45	Hydrogen Sulfide (H2S) Removal via MOFs. Materials, 2020, 13, 3640.	2.9	43
46	Electrochemical promotion of NO reduction by CO and by propene. Studies in Surface Science and Catalysis, 1996, 101, 513-522.	1.5	42
47	In Situ Controlled Promotion of Pt for CO Oxidation via NEMCA Using CaF2, as the Solid Electrolyte. Journal of Catalysis, 1994, 149, 238-242.	6.2	41
48	Development of high performance, Pd-based, three way catalysts. Catalysis Today, 1996, 29, 71-75.	4.4	40
49	Spectroscopic evidence for the mode of action of alkali promoters in Pt-catalyzed de-NOx chemistry. Applied Catalysis B: Environmental, 2007, 76, 101-106.	20.2	37
50	Hydrogen production by iso-octane steam reforming over Cu catalysts supported on rare earth oxides (REOs). International Journal of Hydrogen Energy, 2014, 39, 1350-1363.	7.1	37
51	The effect of sodium on the Pd-catalyzed reduction of NO by methane. Applied Catalysis B: Environmental, 1998, 18, 293-305.	20.2	36
52	CO2 Methanation on Supported Rh Nanoparticles: The combined Effect of Support Oxygen Storage Capacity and Rh Particle Size. Catalysts, 2020, 10, 944.	3.5	35
53	Ethylene Oxidation over Platinum:In SituElectrochemically Controlled Promotion Using Naâ€"Î²â€²â€² Alumina and Studies with a Pt(111)/Na Model Catalyst. Journal of Catalysis, 1996, 160, 19-26.	6.2	34
54	Ir-Catalysed Nitrous oxide (N2O) Decomposition: Effect of Ir Particle Size and Metalâ€"Support Interactions. Catalysis Letters, 2018, 148, 341-347.	2.6	34

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55	Grand Challenges for Catalytic Remediation in Environmental and Energy Applications Toward a Cleaner and Sustainable Future. Frontiers in Environmental Chemistry, 2020, 1, .	1.6	34
56	Insights into the role of SO2 and H2O on the surface characteristics and de-N2O efficiency of Pd/Al2O3 catalysts during N2O decomposition in the presence of CH4 and O2 excess. Applied Catalysis B: Environmental, 2013, 138-139, 191-198.	20.2	32
57	Electrochemical promotion of environmentally important catalytic reactions. Ionics, 1995, 1, 366-376.	2.4	30
58	Electropositive Promotion by Alkalis or Alkaline Earths of Pt-Group Metals in Emissions Control Catalysis: A Status Report. Catalysts, 2019, 9, 157.	3.5	29
59	Hydrogen production via steam reforming of propane over supported metal catalysts. International Journal of Hydrogen Energy, 2020, 45, 14849-14866.	7.1	29
60	Adsorption of Hydrogen Sulfide at Low Temperatures Using an Industrial Molecular Sieve: An Experimental and Theoretical Study. ACS Omega, 2021, 6, 14774-14787.	3.5	29
61	Thermal Aging Behavior of Pt-only TWC Converters Under Simulated Exhaust Conditions: Effect of Rare Earths (CeO2, La2O3) and Alkali (Na) Modifiers. Topics in Catalysis, 2011, 54, 1124-1134.	2.8	27
62	Effectiveness factors for reactions between volatile and non-volatile components in partially wetted catalysts. Chemical Engineering Science, 1987, 42, 1323-1332.	3.8	26
63	Optimal promotion by rubidium of the CO + NO reaction over Pt/Î³-Al2O3 catalysts. Applied Catalysis B: Environmental, 2001, 33, 293-302.	20.2	26
64	Novel doubly-promoted catalysts for the lean NOx reduction by H2+CO: Pd(K)/Al2O3â€"(TiO2). Applied Catalysis B: Environmental, 2006, 68, 59-67.	20.2	26
65	N2O decomposition over doubly-promoted Pt(K)/Al2O3â€"(CeO2â€"La2O3) structured catalysts: On the combined effects of promotion and feed composition. Chemical Engineering Journal, 2013, 230, 286-295.	12.7	26
66	The Effect of WO3 Modification of ZrO2 Support on the Ni-Catalyzed Dry Reforming of Biogas Reaction for Syngas Production. Frontiers in Environmental Science, 2017, 5, .	3.3	26
67	NO reduction by propene or CO over alkali-promoted Pd/YSZ catalysts. Journal of Hazardous Materials, 2007, 149, 619-624.	12.4	25
68	Correlation of Surface Characteristics with Catalytic Performance of Potassium Promoted Pd/Al2O3 Catalysts: The Case of N2O Reduction by Alkanes or Alkenes. Topics in Catalysis, 2011, 54, 1135-1142.	2.8	25
69	A novel fused metal anode solid electrolyte fuel cell for direct coal gasification: a steady-state model. Industrial & Engineering Chemistry Research, 1989, 28, 1414-1424.	3.7	23
70	Successful application of electrochemical promotion to the design of effective conventional catalyst formulations. Solid State Ionics, 2000, 136-137, 783-790.	2.7	23
71	A comparative study of the H2-assisted selective catalytic reduction of nitric oxide by propene over noble metal (Pt, Pd, Ir)/Î³-Al2O3 catalysts. Journal of Environmental Chemical Engineering, 2016, 4, 1629-1641.	6.7	23
72	Support Induced Effects on the Ir Nanoparticles Activity, Selectivity and Stability Performance under CO2 Reforming of Methane. Nanomaterials, 2021, 11, 2880.	4.1	23

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73	Wet oxidation of benzoic acid catalyzed by cupric ions: Key parameters affecting induction period and conversion. Applied Catalysis B: Environmental, 2011, 101, 479-485.	20.2	20
74	The effect of potassium on the Ir/C3H6+NO+O2 catalytic system. Catalysis Today, 2007, 127, 199-206.	4.4	18
75	N2O Abatement Over Î³-Al2O3 Supported Catalysts: Effect of Reducing Agent and Active Phase Nature. Topics in Catalysis, 2009, 52, 1880-1887.	2.8	18
76	Cerium oxide catalysts for oxidative coupling of methane reaction: Effect of lithium, samarium and lanthanum dopants. Journal of Environmental Chemical Engineering, 2022, 10, 107259.	6.7	18
77	Studying the stability of Ni supported on modified with CeO2 alumina catalysts for the biogas dry reforming reaction. Materials Today: Proceedings, 2018, 5, 27607-27616.	1.8	17
78	Potential-Programmed Reduction: A New Technique for Investigating the Thermodynamics and Kinetics of Chemisorption on Catalysts Supported on Solid Electrolytes. Journal of Catalysis, 1994, 148, 240-251.	6.2	16
79	Title is missing!. Catalysis Letters, 2002, 81, 181-185.	2.6	13
80	Surface and Catalytic Elucidation of Rh/Î³-Al2O3 Catalysts during NO Reduction by C3H8 in the Presence of Excess O2, H2O, and SO2. Journal of Physical Chemistry A, 2010, 114, 3969-3980.	2.5	13
81	Synergistic structural and surface promotion of monometallic (Pt) TWCs: Effectiveness and thermal aging tolerance. Applied Catalysis B: Environmental, 2011, 106, 228-228.	20.2	13
82	Ethylene production from methane in a gas recycle electrocatalytic reactor separator. Ionics, 1995, 1, 286-291.	2.4	12
83	Electrochemical promotion in emission control catalysis. Ionics, 1995, 1, 29-31.	2.4	12
84	Novel electropositively promoted monometallic (Pt-only) catalytic converters for automotive pollution control. Topics in Catalysis, 2007, 42-43, 393-397.	2.8	12
85	Insight into the Role of Electropositive Promoters in Emission Control Catalysis: An In Situ DRIFTS Study of NO Reduction by C3H6 Over Na-Promoted Pt/Al2O3 Catalysts. Topics in Catalysis, 2013, 56, 165-171.	2.8	12
86	A comparison between electrochemical and conventional catalyst promotion: The case of N2O reduction by alkanes or alkenes over K-modified Pd catalysts. Solid State Ionics, 2011, 192, 653-658.	2.7	11
87	Support and nemca induced promotional effects on the activity of automotive exhaust catalysts. Studies in Surface Science and Catalysis, 1995, 96, 375-385.	1.5	10
88	Selective Catalytic Reduction of NOx over Perovskite-Based Catalysts Using CxHy(Oz), H2 and CO as Reducing Agentsâ€"A Review of the Latest Developments. Nanomaterials, 2022, 12, 1042.	4.1	10
89	Electrochemical vs. conventional promotion: A new tool to design effective, highly dispersed conventional catalysts. Ionics, 1998, 4, 148-156.	2.4	9
90	Oxidative coupling of methane on Li/CeO2 based catalysts: Investigation of the effect of Mg- and La-doping of the CeO2 support. Molecular Catalysis, 2022, 520, 112157.	2.0	9

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91	Non-Faradaic electrochemical modification of catalytic activity: the work function of metal electrodes in solid electrolyte cells. Solid State Ionics, 1992, 53-56, 97-110.	2.7	8
92	Non-Faradaic electrochemical modification of catalytic activity: solid electrolytes as active catalyst supports. Solid State Ionics, 1994, 72, 321-327.	2.7	8
93	In situ controlled promotion of catalyst surfaces via solid electrolytes: Ethylene oxidation on Rh and propylene oxidation on Pt. Ionics, 1995, 1, 159-164.	2.4	7
94	Electrochemical Promotion in Emission Control Catalysis: The Role of Na for the Pt-Catalysed Reduction of NO by Propene. Studies in Surface Science and Catalysis, 1998, , 255-264.	1.5	7
95	Catalytic performance and in situ DRIFTS studies of propane and simulated LPG steam reforming reactions on Rh nanoparticles dispersed on composite MxOy-Al2O3 (M: Ti, Y, Zr, La, Ce, Nd, Gd) supports. Applied Catalysis B: Environmental, 2022, 316, 121668.	20.2	7
96	Oxidative coupling of methane to ethylene with 85 yield in a gasrecycle electrocatalytic or catalytic reactor-separator. Studies in Surface Science and Catalysis, 1996, 101, 387-396.	1.5	6
97	Capture and Methanation of CO2 Using Dual-Function Materials (DFMs). , 0, , .		6
98	Kinetics of Internal Steam Reforming of CH4 and Their Effect on SOFC Performance. ECS Proceedings Volumes, 1993, 1993-4, 904-912.	0.1	5
99	In Situ Controlled Promotion of Catalyst Surfaces Via Solid Electrolytes: The NEMCA Effect. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1995, 99, 1393-1401.	0.9	5
100	Electrochemical promotion of catalyst surfaces deposited on ionic and mixed conductors. Ionics, 1995, 1, 414-420.	2.4	4
101	Oxidative coupling of methane to ethylene with 85% yield in a gas recycle electrocatalytic or catalytic reactor separator. Studies in Surface Science and Catalysis, 1997, 107, 307-312.	1.5	4
102	Costâ€Effective Adsorption of Oxidative Couplingâ€Derived Ethylene Using a Molecular Sieve. Chemical Engineering and Technology, 2021, 44, 2041.	1.5	4
103	Ion spillover as the origin of the NEMCA effect. Studies in Surface Science and Catalysis, 1993, , 111-116.	1.5	3
104	Effect of Alkali Promoters (K) on Nitrous Oxide Abatement Over Ir/Al2O3 Catalysts. Topics in Catalysis, 2016, 59, 1020-1027.	2.8	3
105	Emissions Control Catalysis. Catalysts, 2019, 9, 912.	3.5	3
106	Advances in Heterocatalysis by Nanomaterials. Nanomaterials, 2020, 10, 609.	4.1	3
107	Electrocatalysis and Electrochemical Reactors. , 2019, , 445-480.		3
108	Improvement of automotive exhaust catalysts by support and electrochemical modification induced promotional effects. Nonlinear Analysis: Theory, Methods & Applications, 1997, 30, 2353-2361.	1.1	2

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109	Direct coal gasification with simultaneous production of electricity in a novel fused metal anode SOFC: a theoretical approach. Ionics, 1999, 5, 460-471.	2.4	2
110	Editorial: Advanced Utilization and Management of Biogas. Frontiers in Environmental Science, 2018, 6, .	3.3	2
111	Solid Electrolytes for in Situ Promotion of Catalyst Surfaces: The Nemca Effect. Studies in Surface Science and Catalysis, 1993, 75, 2139-2142.	1.5	1
112	Effect of CexZryLazOÎ´ Mixed Oxides on the Structural and Catalytic Behavior of Monometallic Catalytic Converters Under Simulated Exhaust Conditions. Topics in Catalysis, 2009, 52, 1873-1879.	2.8	1
113	Removal of Hydrogen Sulfide (H2S) Using MOFs: A Review of the Latest Developments. , 2020, 2, .		1
114	The 10th Anniversary of Nanomaterialsâ€"Recent Advances in Environmental Nanoscience and Nanotechnology. Nanomaterials, 2022, 12, 915.	4.1	1
115	A Novel Biogas-Fueled-SOFC Aided Process for Direct Production of Electricity from Wastewater Treatment: Comparison of the Performances of High and Intermediate Temperature SOFCs. , 2019, , 624-628.		0