

Toru Murayama

List of Publications by Year in descending order

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98
papers

3,263
citations

136950

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175258

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103
all docs

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docs citations

103
times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Transesterification of Ethyl-10-undecenoate Using a Cu-Deposited V ₂ O ₅ Catalyst as a Model Reaction for Efficient Conversion of Plant Oils to Monomers and Fine Chemicals. ACS Omega, 2022, 7, 4372-4380.	3.5	4
2	Praseodymia-titania mixed oxide supported gold as efficient water gas shift catalyst: modulated by the mixing ratio of oxides. RSC Advances, 2022, 12, 5374-5385.	3.6	3
3	Defective NiO as a Stabilizer for Au Single-Atom Catalysts. ACS Catalysis, 2022, 12, 6149-6158.	11.2	30
4	Understanding the Distinct Effects of Ag Nanoparticles and Highly Dispersed Ag Species on N ₂ Selectivity in NH ₃ -SCO Reaction. ACS Catalysis, 2022, 12, 6108-6118.	11.2	15
5	Synthesis of bulk vanadium oxide with a large surface area using organic acids and its low-temperature NH ₃ -SCR activity. Catalysis Today, 2021, 376, 188-196.	4.4	11
6	C, N Co-Decorated Alumina-Supported Au Nanoparticles: Enhanced Catalytic Performance for Selective Hydrogenation of Acetylene. Topics in Catalysis, 2021, 64, 197-205.	2.8	2
7	Gold Nanoparticles Supported on Ce-Zr Oxides for Selective Hydrogenation of Acetylene. Topics in Catalysis, 2021, 64, 206-214.	2.8	4
8	Preparation of Polyaniline Microtubes as the Gold Catalyst Support with Improved Catalytic Performances for the Reduction of Nitrophenols. Topics in Catalysis, 2021, 64, 215-223.	2.8	11
9	High dimensionally structured W-V oxides as highly effective catalysts for selective oxidation of toluene. Catalysis Today, 2021, 363, 60-66.	4.4	6
10	Bulk tungsten-substituted vanadium oxide for low-temperature NO _x removal in the presence of water. Nature Communications, 2021, 12, 557.	12.8	92
11	Synthesis of Zeolitic Mo-Doped Vanadotungstates and Their Catalytic Activity for Low-Temperature NH ₃ -SCR. Inorganic Chemistry, 2021, 60, 5081-5086.	4.0	8
12	Ag Size/Structure-Dependent Effect on Low-Temperature Selective Catalytic Oxidation of NH ₃ over Ag/MnO ₂ . ACS Catalysis, 2021, 11, 8576-8584.	11.2	31
13	Insights into Au Nanoparticle Size and Chemical State of Au/ZSM-5 Catalyst for Catalytic Cracking of n-Octane to Increase Propylene Production. Journal of Physical Chemistry C, 2021, 125, 16013-16023.	3.1	9
14	Controlling the O-Vacancy Formation and Performance of Au/ZnO Catalysts in CO ₂ -Reduction to Methanol by the ZnO Particle Size. ACS Catalysis, 2021, 11, 9022-9033.	11.2	53
15	True Catalytically Active Structure in Mo-V-Based Mixed Oxide Catalysts for Selective Oxidation of Acrolein. ACS Catalysis, 2021, 11, 10294-10307.	11.2	14
16	Analogous Mechanistic Features of NH ₃ -SCR over Vanadium Oxide and Copper Zeolite Catalysts. ACS Catalysis, 2021, 11, 11180-11192.	11.2	33
17	Catalytic Activities of Various Niobium Oxides for Hydrogen Absorption/Desorption Reactions of Magnesium. ACS Omega, 2021, 6, 23564-23569.	3.5	7
18	Selective catalytic oxidation of ammonia to nitrogen over zeolite-supported Pt-Au catalysts: Effects of alloy formation and acid sites. Journal of Catalysis, 2021, 402, 101-113.	6.2	30

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19	Synthesis of Zeolitic Ti, Zr-Substituted Vanadotungstates and Investigation of Their Catalytic Activities for Low Temperature NH ₃ -SCR. ACS Catalysis, 2021, 11, 14016-14025.	11.2	7
20	Importance of Size and Contact Structure of Gold Nanoparticles for the Genesis of Unique Catalytic Processes. Chemical Reviews, 2020, 120, 464-525.	47.7	386
21	Elucidation of Active Sites of Gold Nanoparticles on Acidic Ta ₂ O ₅ Supports for CO Oxidation. ACS Catalysis, 2020, 10, 9328-9335.	11.2	17
22	Gold Nanoparticles Supported on Nb ₂ O ₅ for Low-Temperature CO Oxidation and as Cathode Materials for Li-ion Batteries. Applied Catalysis A: General, 2020, 603, 117747.	4.3	9
23	CO ₂ Reduction to Methanol on Au/CeO ₂ Catalysts: Mechanistic Insights from Activation/Deactivation and SSITKA Measurements. ACS Catalysis, 2020, 10, 3580-3594.	11.2	47
24	Features of Nb ₂ O ₅ as a metal oxide support of Pt and Pd catalysts for selective catalytic oxidation of NH ₃ with high N ₂ selectivity. Journal of Catalysis, 2020, 389, 366-374.	6.2	33
25	Low-Temperature Propylene Epoxidation Activity of CuO@CeO ₂ Catalyst with CO + O ₂ : Role of Metal-Support Interaction on the Reducibility and Catalytic Property of CuO Species. Journal of Physical Chemistry C, 2020, 124, 14131-14146.	3.1	20
26	Ligand effect of gold colloid in the preparation of Au/Nb ₂ O ₅ for CO oxidation. Journal of Catalysis, 2020, 389, 9-18.	6.2	9
27	Influence of the structure of trigonal Mo-V-M ₃ rd oxides (M ₃ rd = Cr, Fe, Cu, W) on catalytic performances in selective oxidations of ethane, acrolein, and allyl alcohol. Applied Catalysis A: General, 2019, 584, 117151.	4.3	9
28	CO Oxidation over Au/ZnO: Unprecedented Change of the Reaction Mechanism at Low Temperature Caused by a Different O ₂ Activation Process. ACS Catalysis, 2019, 9, 8364-8372.	11.2	42
29	Ultra-Low-Temperature CO Oxidation Activity of Octahedral Site Cobalt Species in Co ₃ O ₄ Based Catalysts: Unravelling the Origin of the Unique Catalytic Property. Journal of Physical Chemistry C, 2019, 123, 19557-19571.	3.1	41
30	Oxidative esterification of aliphatic aldehydes and alcohols with ethanol over gold nanoparticle catalysts in batch and continuous flow reactors. Applied Catalysis A: General, 2019, 585, 117169.	4.3	13
31	Bulk Vanadium Oxide versus Conventional V ₂ O ₅ /TiO ₂ : NH ₃ -SCR Catalysts Working at a Low Temperature Below 150 °C. ACS Catalysis, 2019, 9, 9327-9331.	11.2	82
32	Role of the Acid Site for Selective Catalytic Oxidation of NH ₃ over Au/Nb ₂ O ₅ . ACS Catalysis, 2019, 9, 1753-1756.	11.2	69
33	Redox-Active Zeolitic Transition Metal Oxides Based on μ -Keggin Units for Selective Oxidation. Inorganic Chemistry, 2019, 58, 6283-6293.	4.0	23
34	Low-temperature NH ₃ -SCR Activity of Nanoparticulate Gold Supported on a Metal Oxide. Journal of the Japan Petroleum Institute, 2019, 62, 234-243.	0.6	6
35	Supported gold cluster catalysts prepared by solid grinding using a non-volatile organogold complex for low-temperature CO oxidation and the effect of potassium on gold particle size. Applied Catalysis B: Environmental, 2019, 241, 539-547.	20.2	27
36	The Effects of Dopants on the Cu@ZrO ₂ Catalyzed Hydrogenation of Levulinic Acid. Journal of Physical Chemistry C, 2019, 123, 7879-7888.	3.1	21

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37	Multi-dimensional Crystal Structuring of Complex Metal Oxide Catalysts of Group V and VI Elements by Unit-Assembling. <i>Topics in Catalysis</i> , 2019, 62, 1157-1168.	2.8	6
38	Dehydrative Allylation of Amine with Allyl Alcohol by Titanium Oxide Supported Molybdenum Oxide Catalyst. <i>Synlett</i> , 2019, 30, 287-292.	1.8	7
39	W-Ti-O Mixed Metal Oxide Catalyzed Dehydrative Cross-etherification of Alcohols. <i>Chemistry Letters</i> , 2018, 47, 447-449.	1.3	2
40	Carbon Monoxide Oxidation by Polyoxometalate-Supported Gold Nanoparticulate Catalysts: Activity, Stability, and Temperature-Dependent Activation Properties. <i>Angewandte Chemie</i> , 2018, 130, 1539-1543.	2.0	23
41	Carbon Monoxide Oxidation by Polyoxometalate-Supported Gold Nanoparticulate Catalysts: Activity, Stability, and Temperature-Dependent Activation Properties. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 1523-1527.	13.8	29
42	Facile Formation of Lactic Acid from a Triose Sugar in Water over Niobium Oxide with a Deformed Orthorhombic Phase. <i>ACS Catalysis</i> , 2018, 8, 283-290.	11.2	76
43	A zeolitic vanadotungstate family with structural diversity and ultrahigh porosity for catalysis. <i>Nature Communications</i> , 2018, 9, 3789.	12.8	30
44	Versatile etherification of alcohols with allyl alcohol by a titanium oxide-supported molybdenum oxide catalyst: gradual generation from titanium oxide and molybdenum oxide. <i>Catalysis Science and Technology</i> , 2018, 8, 4618-4625.	4.1	8
45	Control of catalytic nanoparticle synthesis: general discussion. <i>Faraday Discussions</i> , 2018, 208, 471-495.	3.2	3
46	The challenges of characterising nanoparticulate catalysts: general discussion. <i>Faraday Discussions</i> , 2018, 208, 339-394.	3.2	5
47	Hydrothermal synthesis of a layered-type W-Ti-O mixed metal oxide and its solid acid activity. <i>Catalysis Science and Technology</i> , 2017, 7, 243-250.	4.1	21
48	Low-Temperature CO Oxidation over Combustion Made Fe- and Cr-Doped Co_3O_4 Catalysts: Role of Dopant's Nature toward Achieving Superior Catalytic Activity and Stability. <i>Journal of Physical Chemistry C</i> , 2017, 121, 15256-15265.	3.1	67
49	Synthesis of Crystalline Microporous Mo-V-Bi Oxide for Selective (Amm)Oxidation of Light Alkanes. <i>Chemistry of Materials</i> , 2017, 29, 2939-2950.	6.7	24
50	Identification of the catalytically active component of Cu-Zr-O catalyst for the hydrogenation of levulinic acid to γ -valerolactone. <i>Green Chemistry</i> , 2017, 19, 225-236.	9.0	68
51	Role of Crystalline Structure in Allyl Alcohol Selective Oxidation over Mo_3VO_x Complex Metal Oxide Catalysts. <i>ChemCatChem</i> , 2016, 8, 2415-2420.	3.7	13
52	Hydrothermal synthesis of W-Ta-O complex metal oxides by assembling MO_6 (M = W or Ta) octahedra and creation of solid acid. <i>Journal of Catalysis</i> , 2016, 339, 143-152.	6.2	11
53	New crystalline complex metal oxides created by unit-synthesis and their catalysis based on porous and redox properties. <i>Faraday Discussions</i> , 2016, 188, 81-98.	3.2	13
54	Synthesis of Trigonal Mo-V-M ₃ O (M ₃ = Fe, W) Catalysts by Using Structure-Directing Agent and Catalytic Performances for Selective Oxidation of Ethane. <i>Topics in Catalysis</i> , 2016, 59, 1477-1488.	2.8	15

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55	Deposition of Gold Nanoparticles on Niobium Pentoxide with Different Crystal Structures for Room-Temperature Carbon Monoxide Oxidation. <i>ChemCatChem</i> , 2016, 8, 2620-2624.	3.7	19
56	Correlation between catalytic activity of supported gold catalysts for carbon monoxide oxidation and metal-oxygen binding energy of the support metal oxides. <i>Chinese Journal of Catalysis</i> , 2016, 37, 1651-1655.	14.0	22
57	NH ₃ -efficient ammoxidation of toluene by hydrothermally synthesized layered tungsten-vanadium complex metal oxides. <i>Journal of Catalysis</i> , 2016, 344, 346-353.	6.2	24
58	Preparation of gold nanoparticles supported on Nb ₂ O ₅ by deposition precipitation and deposition reduction methods and their catalytic activity for CO oxidation. <i>Chinese Journal of Catalysis</i> , 2016, 37, 1694-1701.	14.0	29
59	Synthesis of Vanadium-Incorporated, Polyoxometalate-Based Open Frameworks and Their Applications for Cathode-Active Materials. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 1242-1250.	2.0	17
60	Hydrothermal synthesis of microporous W ₆ O ₁₉ as an efficient catalyst for ammoxidation of 3-picoline. <i>Applied Catalysis A: General</i> , 2016, 509, 118-122.	4.3	18
61	Direct oxidative transformation of glycerol to acrylic acid over Nb-based complex metal oxide catalysts. <i>Catalysis Today</i> , 2016, 259, 205-212.	4.4	51
62	Synthesis of crystalline Mo ₆ W ₆ O ₄₂ complex oxides with orthorhombic and trigonal structures and their application as catalysts. <i>Journal of Lithic Studies</i> , 2015, 1, 71-77.	0.5	3
63	Ultrathin inorganic molecular nanowire based on polyoxometalates. <i>Nature Communications</i> , 2015, 6, 7731.	12.8	50
64	Redox Treatment of Orthorhombic Mo ₂₉ V ₁₁ O ₁₁₂ and Relationships between Crystal Structure, Microporosity and Catalytic Performance for Selective Oxidation of Ethane. <i>Journal of Physical Chemistry C</i> , 2015, 119, 7195-7206.	3.1	49
65	Selective carbon dioxide adsorption of μ -Keggin-type zirconomolybdate-based purely inorganic 3D frameworks. <i>Journal of Materials Chemistry A</i> , 2015, 3, 746-755.	10.3	39
66	Catalysis field in orthorhombic Mo ₃ VO _x oxide catalyst for the selective oxidation of ethane, propane and acrolein. <i>Catalysis Today</i> , 2014, 238, 35-40.	4.4	57
67	Reduced Vanadium and Molybdenum Oxides Catalyze the Equivalent Formation of Ethane and Acetaldehyde from Ethanol. <i>ChemCatChem</i> , 2014, 6, 741-744.	3.7	18
68	Heptagonal channel micropore of orthorhombic Mo ₃ VO _x as catalysis field for the selective oxidation of ethane. <i>Applied Catalysis A: General</i> , 2014, 474, 10-17.	4.3	58
69	Tetrahedral Connection of μ -Keggin-type Polyoxometalates To Form an All-Inorganic Octahedral Molecular Sieve with an Intrinsic 3D Pore System. <i>Inorganic Chemistry</i> , 2014, 53, 903-911.	4.0	65
70	Investigation of the formation process of zeolite-like 3D frameworks constructed with μ -Keggin-type polyoxovanadomolybdates with binding bismuth ions and preparation of a nano-crystal. <i>Dalton Transactions</i> , 2014, 43, 13584.	3.3	19
71	Preparation, Structural Characterization, and Ion-Exchange Properties of Two New Zeolite-like 3D Frameworks Constructed by μ -Keggin-Type Polyoxometalates with Binding Metal Ions, H _{11.4} [ZnMo ₁₂ O ₄₀ Zn ₂] ^{1.5+} and H _{7.5} [Mn _{0.2} Mo ₁₂ O ₄₀ Mn ₂] ^{2.1+} . <i>Inorganic Chemistry</i> , 2014, 53, 7309-7318.	4.0	48
72	Hydrogen-transfer dehydration between alcohols over V ₂ O ₃ and MoO ₂ catalysts for the formation of corresponding alkanes and aldehydes. <i>Journal of Molecular Catalysis A</i> , 2014, 394, 137-144.	4.8	8

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73	Hydrothermal synthesis of octahedra-based layered niobium oxide and its catalytic activity as a solid acid. <i>Catalysis Science and Technology</i> , 2014, 4, 4250-4257.	4.1	133
74	Crystalline Mo-V-W-mixed Oxide with Orthorhombic and Trigonal Structures as Highly Efficient Oxidation Catalysts of Acrolein to Acrylic Acid. <i>Topics in Catalysis</i> , 2014, 57, 1163-1170.	2.8	37
75	Seed-Assisted Synthesis of Crystalline Mo_3VO_x Oxides and Their Crystal Formation Mechanism. <i>Crystal Growth and Design</i> , 2014, 14, 4553-4561.	3.0	12
76	Direct Oxidative Transformation of Glycerol into Acrylic Acid over Phosphoric Acid-added W-Nb Complex Metal Oxide Catalysts. <i>Chemistry Letters</i> , 2014, 43, 435-437.	1.3	22
77	Hydrothermal synthesis of W-Nb complex metal oxides and their application to catalytic dehydration of glycerol to acrolein. <i>Catalysis Today</i> , 2013, 201, 7-11.	4.4	65
78	An orthorhombic Mo_3VO_x catalyst most active for oxidative dehydrogenation of ethane among related complex metal oxides. <i>Catalysis Science and Technology</i> , 2013, 3, 380-387.	4.1	90
79	Electrocatalysis of heat-treated cobalt-porphyrin/carbon for hydrogen peroxide formation. <i>Electrochimica Acta</i> , 2013, 108, 321-329.	5.2	53
80	Assembly of a Pentagonal Polyoxomolybdate Building Block, $[\text{Mo}_6\text{O}_{21}]^{6-}$, into Crystalline MoV Oxides. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 1731-1736.	2.0	35
81	Synthesis of Novel Orthorhombic Mo and V Based Complex Oxides Coordinating Alkylammonium Cation in Its Heptagonal Channel and Their Application as a Catalyst. <i>Chemistry of Materials</i> , 2013, 25, 2211-2219.	6.7	34
82	Single-Crystalline Phase Mo_3VO_x : An Efficient Catalyst for the Partial Oxidation of Acrolein to Acrylic Acid. <i>ChemCatChem</i> , 2013, 5, 2869-2873.	3.7	44
83	Quantitative Analysis of Coke Formation during Steam Reforming of Methane on a Nickel-Hydroxalcite Catalyst under Practical Operation Conditions. <i>Chemistry Letters</i> , 2013, 42, 124-126.	1.3	4
84	Phosgene-Free Method for Diphenyl Carbonate Synthesis at the $\text{Pd}^0/\text{Ketjenblack}$ Anode. <i>Journal of Physical Chemistry C</i> , 2012, 116, 10607-10616.	3.1	20
85	Synthesis of porous and acidic complex metal oxide catalyst based on group 5 and 6 elements. <i>Catalysis Today</i> , 2012, 185, 224-229.	4.4	14
86	Morphology-controlled preparation of iron-based oxides using a paper template. <i>Materials Letters</i> , 2012, 81, 80-83.	2.6	2
87	Redox tunable reversible molecular sieves: orthorhombic molybdenum vanadium oxide. <i>Chemical Communications</i> , 2011, 47, 10812.	4.1	40
88	Electrosynthesis of Neutral H_2O_2 Solution from O_2 and Water at a Mixed Carbon Cathode Using an Exposed Solid-Polymer-Electrolyte Electrolysis Cell. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5792-5799.	3.1	69
89	A Fuel Cell Reactor for the Direct Synthesis of Hydrogen Peroxide Alkaline Solutions from H_2 and O_2 . <i>ChemSusChem</i> , 2011, 4, 494-501.	6.8	31
90	Catalytic neutral hydrogen peroxide synthesis from O_2 and H_2 by PEMFC fuel. <i>Catalysis Today</i> , 2011, 164, 163-168.	4.4	19

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91	Direct synthesis of diphenyl carbonate by mediated electrocarbonylation of phenol at Pd ²⁺ -supported activated carbon anode. <i>Electrochimica Acta</i> , 2011, 56, 2926-2933.	5.2	11
92	Preparation and formation mechanism of three-dimensionally ordered macroporous (3DOM) MgO, MgSO ₄ , CaCO ₃ , and SrCO ₃ , and photonic stop band properties of 3DOM CaCO ₃ . <i>Journal of Solid State Chemistry</i> , 2011, 184, 2299-2305.	2.9	17
93	Study of the Electrochemical Carbonylation of Ethanol and Ethylene at Pd/C Anode. <i>ECS Transactions</i> , 2010, 25, 35-40.	0.5	2
94	Direct Synthesis of Diphenyl Carbonate by Electrocarbonylation at a Pd ²⁺ -supported Anode. <i>Chemistry Letters</i> , 2010, 39, 418-419.	1.3	7
95	Catalytic Synthesis of Neutral Hydrogen Peroxide at a CoN ₂ C _x Cathode of a Polymer Electrolyte Membrane Fuel Cell (PEMFC). <i>ChemSusChem</i> , 2010, 3, 59-62.	6.8	51
96	Neutral H ₂ O ₂ Synthesis by Electrolysis of O ₂ and Water. <i>ECS Transactions</i> , 2009, 25, 19-24.	0.5	2
97	Catalytic Synthesis of Neutral H ₂ O ₂ Solutions from O ₂ and H ₂ by a Fuel Cell Reaction. <i>ChemSusChem</i> , 2008, 1, 988-992.	6.8	47
98	Neutral H ₂ O ₂ Synthesis by Electrolysis of Water and O ₂ . <i>Angewandte Chemie - International Edition</i> , 2008, 47, 1900-1902.	13.8	162