Tetsuhiko Kobayashi

List of Publications by Year in descending order

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	41344	18130
15,801	49	120
citations	h-index	g-index
122	122	10005
132	132	12325
docs citations	times ranked	citing authors
	citations 132	15,801 49 citations h-index 132 132

#	Article	IF	CITATIONS
1	Energy Research in AIST. Advanced Energy Materials, 2019, 9, 1901510.	19.5	0
2	γ-Al2â^'xMxO3±y (M = Ti4+ through Ga3+): potential pseudo-3D mesoporous materials with tunable acidity and electronic structure. Journal of Materials Chemistry, 2012, 22, 13484.	6.7	56
3	Electrochemical oxidation of ammonia borane on gold electrode. International Journal of Hydrogen Energy, 2009, 34, 174-179.	7.1	35
4	Thermal Stability and Dispersion Behavior of Nanostructured Ce _{<i>x</i>} Zr _{1â^²<i>x</i>} O ₂ Mixed Oxides over Anatase-TiO ₂ : A Combined Study of CO Oxidation and Characterization by XRD, XPS, TPR, HREM, and UVâ^²Vis DRS. Industrial & Engineering Chemistry Research, 2009, 48, 453-462.	3.7	43
5	Hydrogen production via steam reforming of ethyl alcohol over nano-structured indium oxide catalysts. Journal of Power Sources, 2008, 179, 566-570.	7.8	48
6	Time evolution of palladium structure change with redox fluctuations in a LaFePdO3 perovskite automotive catalyst by high-speed analysis with in situ DXAFS. Catalysis Communications, 2008, 9, 311-314.	3.3	34
7	Structural Characterization and Catalytic Activity of Nanosized Ceriaâ^'Terbia Solid Solutions. Journal of Physical Chemistry C, 2008, 112, 16393-16399.	3.1	69
8	Effect of the Composition and Coating Condition on the Structure and Performance of Catalyst Layer of PEFC. Journal of Chemical Engineering of Japan, 2007, 40, 808-816.	0.6	2
9	Existence of the Naâ^'Hδ-··Ĥδ +â^'O Dihydrogen Bond in the Hydrogenation Process by Na2O:  A First-Principles Identification. Journal of Physical Chemistry C, 2007, 111, 5064-5068.	3.1	5
10	A Platinumâ€Free Zeroâ€Carbonâ€Emission Easy Fuelling Direct Hydrazine Fuel Cell for Vehicles. Angewandte Chemie - International Edition, 2007, 46, 8024-8027.	13.8	292
11	Dehydrogenation Reaction for NaOH System: A Firstâ€Principles Study. ChemPhysChem, 2007, 8, 1979-1987.	2.1	2
12	A new fuel cell using aqueous ammonia-borane as the fuel. Journal of Power Sources, 2007, 168, 167-171.	7.8	69
13	Structural Characterization and Oxidative Dehydrogenation Activity of V2O5/CexZr1-xO2/SiO2Catalysts. Journal of Physical Chemistry B, 2006, 110, 9140-9147.	2.6	63
14	A novel DME steam-reforming catalyst designed with fact database on-demand. Applied Surface Science, 2006, 252, 2593-2597.	6.1	38
15	Reaction of hydrogen with sodium oxide: A reversible hydrogenation/dehydrogenation system. Journal of Power Sources, 2006, 155, 167-171.	7.8	22
16	C2F6 plasma treatment of a carbon support for a PEM fuel cell electrocatalyst. Journal of Power Sources, 2006, 161, 836-838.	7.8	18
17	Effects of alkali metal cations on the structures, physico-chemical properties and catalytic behaviors of silica-supported vanadium oxide catalysts for the selective oxidation of ethane and the complete oxidation of diesel soot. Topics in Catalysis, 2006, 38, 309-325.	2.8	18
18	Effect of support on the activity of Ga2O3 species for steam reforming of dimethyl ether. Applied Catalysis A: General, 2006, 300, 58-66.	4.3	26

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19	Optimization of reaction conditions for cyclohexene epoxidation with H2O2 over nanocrystalline mesoporous TiO2 loaded with RuO2. Journal of Molecular Catalysis A, 2006, 248, 226-232.	4.8	15
20	A Direct CO Polymer Electrolyte Membrane Fuel Cell. Angewandte Chemie - International Edition, 2006, 45, 3120-3122.	13.8	46
21	Utilization of Combinatorial Method and High Throughput Experimentation for Development of Heterogeneous Catalysts. Journal of the Japan Petroleum Institute, 2006, 49, 157-167.	0.6	14
22	Catalysis of nanocrystalline mesoporous TiO2 on cyclohexene epoxidation with H2O2: Effects of mesoporosity and metal oxide additives. Journal of Molecular Catalysis A, 2005, 241, 23-32.	4.8	51
23	Graphite intercalation compounds as PEMFC electrocatalyst supports. Carbon, 2005, 43, 2374-2378.	10.3	19
24	The reducing capability of palladium segregated from perovskite-type LaFePdOx automotive catalysts. Applied Catalysis A: General, 2005, 296, 114-119.	4.3	39
25	Redox behavior of palladium at start-up in the Perovskite-type LaFePdOx automotive catalysts showing a self-regenerative function. Applied Catalysis B: Environmental, 2005, 57, 267-273.	20.2	131
26	Surface characterization and catalytic activity of sulfate-, molybdate- and tungstate-promoted Al2O3–ZrO2 solid acid catalysts. Journal of Molecular Catalysis A, 2005, 227, 81-89.	4.8	83
27	Metal oxide catalysts for DME steam reforming: Ga2O3 and Ga2O3–Al2O3 catalysts with and without copper. Applied Catalysis A: General, 2005, 286, 11-22.	4.3	65
28	Metal oxide catalysts for DME steam reforming: Ga2O3 and Ga2O3?Al2O3 catalysts. Catalysis Letters, 2005, 100, 247-253.	2.6	29
29	Combinatorial Catalysis for Hydrogen Production from Ethanol. Materials Research Society Symposia Proceedings, 2005, 894, 1.	0.1	0
30	A semiconductor gas sensor system for high throughput screening of heterogeneous catalysts for the production of benzene derivatives. Measurement Science and Technology, 2005, 16, 229-234.	2.6	9
31	Gas Sensor Technology for High-Throughput Screening in Catalysis. , 2005, , 189-209.		0
32	Instruments for preparation of heterogeneous catalysts by an impregnation method. Review of Scientific Instruments, 2005, 76, 062226.	1.3	7
33	Graphite intercalation compounds used for electrocatalyst support. Tanso, 2005, 2005, 155-158.	0.1	1
34	Dispersion Control of Nano-Particles and the Effect of the Coating Condition on the Performance of Proton-Exchange Membrane Fuel Cells (PEMFCs). Journal of Chemical Engineering of Japan, 2004, 37, 31-39.	0.6	14
35	A combinatorial study on catalytic synergism in supported metal catalysts for fuel cell technology. Applied Surface Science, 2004, 223, 102-108.	6.1	18
36	High-throughput screening of PEMFC anode catalysts by IR thermography. Applied Surface Science, 2004, 223, 220-223.	6.1	19

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37	Novel Selective Oxidation of Light Alkanes Using Carbon Dioxide. Oxidized Diamond as a Novel Catalytic Medium ChemInform, 2004, 35, no.	0.0	0
38	Oxidized Diamond as a Simultaneous Production Medium of Carbon Nanomaterials and Hydrogen for Fuel Cell ChemInform, 2004, 35, no.	0.0	0
39	The roles of redox and acid–base properties of silica-supported vanadia catalysts in the selective oxidation of ethane. Catalysis Today, 2004, 93-95, 163-171.	4.4	60
40	Potential application of anion-exchange membrane for hydrazine fuel cell electrolyte. Electrochemistry Communications, 2003, 5, 892-896.	4.7	245
41	Effect of anode electrocatalyst for direct hydrazine fuel cell using proton exchange membrane. Journal of Power Sources, 2003, 122, 132-137.	7.8	102
42	Electrochemical oxidation of CO in sulfuric acid solution over Pt and PtRu catalysts modified with TaOx and NbOx. Catalysis Today, 2003, 84, 223-229.	4.4	32
43	Investigation of PEM type direct hydrazine fuel cell. Journal of Power Sources, 2003, 115, 236-242.	7.8	137
44	Optical CO sensitivity of Au–CuO composite film by use of the plasmon absorption change. Sensors and Actuators B: Chemical, 2003, 96, 589-595.	7.8	80
45	High throughput experiments on methane partial oxidation using molecular oxygen over silica doped with various elements. Applied Catalysis A: General, 2003, 254, 45-58.	4.3	20
46	Structural Characterization of CeO2â^'TiO2and V2O5/CeO2â^'TiO2Catalysts by Raman and XPS Techniques. Journal of Physical Chemistry B, 2003, 107, 5162-5167.	2.6	323
47	Synthesis Gas Production from Methane Using Oxidized-Diamond-Supported Group VIII Metal Catalysts. Energy & Fuels, 2003, 17, 971-976.	5.1	22
48	Oxidized Diamond as a Simultaneous Production Medium of Carbon Nanomaterials and Hydrogen for Fuel Cell. Chemistry of Materials, 2003, 15, 4571-4575.	6.7	37
49	Direct Formation of Acetaldehyde from Ethane Using Carbon Dioxide as a Novel Oxidant over Oxidized Diamond-Supported Catalysts. Journal of Physical Chemistry B, 2003, 107, 13419-13424.	2.6	25
50	The Role of Chemisorbed Oxygen on Diamond Surfaces for the Dehydrogenation of Ethane in the Presence of Carbon Dioxide. Journal of Physical Chemistry B, 2003, 107, 4048-4056.	2.6	66
51	Direct Polymer Electrolyte Fuel Cells Using L-Ascorbic Acid as a Fuel. Electrochemical and Solid-State Letters, 2003, 6, A257.	2.2	50
52	Structural Characterization of CeO2â^'MO2(M = Si4+, Ti4+, and Zr4+) Mixed Oxides by Raman Spectroscopy, X-ray Photoelectron Spectroscopy, and Other Techniques. Journal of Physical Chemistry B, 2003, 107, 11475-11484.	2.6	166
53	Raman and X-ray Photoelectron Spectroscopy Study of CeO2â^'ZrO2and V2O5/CeO2â^'ZrO2Catalysts. Langmuir, 2003, 19, 3025-3030.	3.5	153
54	56 High throughput experiment on the investigation of oxidation catalysts with gas sensor system. Studies in Surface Science and Catalysis, 2003, 145, 275-278.	1.5	0

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55	Simple Preparation Method of Isolated Iron (III) Species on Silica Surface. Chemistry Letters, 2003, 32, 208-209.	1.3	10
56	Novel Selective Oxidation of Light Alkanes Using Carbon Dioxide. Oxidized Diamond as a Novel Catalytic Medium. Chemistry Letters, 2003, 32, 866-867.	1.3	12
57	High-Throughput Screening of Oxidation Catalysts with Gas Sensors. , 2003, , 247-259.		3
58	Surface Characterization of CeO2/SiO2 and V2O5/CeO2/SiO2 Catalysts by Raman, XPS, and Other Techniques. Journal of Physical Chemistry B, 2002, 106, 10964-10972.	2.6	149
59	Surface characterization of sulfate, molybdate, and tungstate promoted TiO2-ZrO2 solid acid catalysts by XPS and other techniques. Applied Catalysis A: General, 2002, 228, 269-278.	4.3	130
60	Surface Characterization of La2O3â^'TiO2and V2O5/La2O3â^'TiO2Catalysts. Journal of Physical Chemistry B, 2002, 106, 5695-5700.	2.6	119
61	Title is missing!. Catalysis Letters, 2002, 80, 161-164.	2.6	24
62	Optimization of Fe/SiO2 based metal oxides as selective oxidation catalyst of propane with combinatorial approach. Research on Chemical Intermediates, 2002, 28, 397-407.	2.7	12
63	Oxidized Diamond Supported Ni Catalyst for Synthesis Gas Formation from Methane. Chemistry Letters, 2001, 30, 460-461.	1.3	20
64	Transient response of catalyst bed temperature in the pulsed reaction of partial oxidation of methane to synthesis gas over supported group VIII metal catalysts. Catalysis Today, 2001, 64, 31-41.	4.4	35
65	Odor identification using a SnO2-based sensor array. Sensors and Actuators B: Chemical, 2001, 80, 51-58.	7.8	54
66	Partial oxidation of ethane into acetaldehyde and acrolein by oxygen over silica-supported bismuth catalysts. Applied Catalysis A: General, 2001, 207, 139-149.	4.3	13
67	Novel catalysts having NOx-adsorption sites for the selective oxidation of ethane. Applied Catalysis A: General, 2001, 209, 391-399.	4.3	11
68	Role of Carbon Dioxide in the Dehydrogenation of Ethane over Gallium-Loaded Catalysts. Journal of Catalysis, 2001, 203, 87-93.	6.2	159
69	Rapid evaluation of oxidation catalysis by gas sensor system: total oxidation, oxidative dehydrogenation, and selective oxidation over metal oxide catalysts. Catalysis Today, 2001, 67, 379-387.	4.4	31
70	Selective oxidation of light alkanes to aldehydes over silica catalysts supporting mononuclear active sites — acrolein formation from ethane. Catalysis Today, 2001, 71, 69-76.	4.4	30
71	ā,»āf³ā,•āf³ā,°ææ–™ā«āŠāʿā,‹āfŠāfŽā,µā,ª,°åŠ¹æžœ. Electrochemistry, 2001, 69, 872-875.	1.4	6
72	Oxidized Diamond: A Novel Support for Catalytic Dehydrogenation. Chemistry Letters, 2000, 29, 1100-1101.	1.3	29

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73	Influence of dissolved oxygen on intensity modulated photocurrent spectroscopy (IMPS) at a silicon–hydrofluoric acid interface. Electrochimica Acta, 2000, 45, 2219-2225.	5.2	5
74	Effect of UV light irradiation on the morphology of pyrolyzed Co3O4 films. Solid State Ionics, 2000, 136-137, 1291-1293.	2.7	5
75	Oxidation of ethane into acetaldehyde and acrolein over silica containing cesium and a very small amount of additives. Applied Catalysis A: General, 2000, 196, 37-42.	4.3	13
76	Title is missing!. Catalysis Letters, 2000, 64, 215-221.	2.6	88
77	Selective Oxidation of Ethane to Acetaldehyde and Acrolein over Silica-Supported Vanadium Catalysts Using Oxygen as Oxidant. Journal of Catalysis, 2000, 190, 215-227.	6.2	56
78	Partial oxidation of methane to synthesis gas over iridium–nickel bimetallic catalysts. Applied Catalysis A: General, 1999, 180, 183-193.	4.3	46
79	Oxidation of alkanes by TBHP in the presence of soluble titanium complexes. Journal of Molecular Catalysis A, 1999, 142, 77-84.	4.8	14
80	Oxidative removal of co contained in hydrogen by using metal oxide catalysts. International Journal of Hydrogen Energy, 1999, 24, 355-358.	7.1	114
81	Optical humidity sensitivity of plasma-oxidized nickel oxide films. Solid State Ionics, 1999, 121, 307-311.	2.7	16
82	Transient Response of Catalyst Bed Temperature in the Pulsed Reaction of Partial Oxidation of Methane to Synthesis Gas over Supported Rhodium and Iridium Catalysts. Journal of Catalysis, 1999, 186, 405-413.	6.2	59
83	Acrolein formation in the oxidation of ethane over silica catalysts supporting iron and cesium. Catalysis Letters, 1999, 63, 79-82.	2.6	16
84	Partial oxidation of propene over metal oxide catalysts pretreated with NO2. Catalysis Letters, 1998, 53, 73-76.	2.6	8
85	Title is missing!. Catalysis Letters, 1998, 55, 33-38.	2.6	24
86	Effect of support on the conversion of methane to synthesis gas over supported iridium catalysts. Catalysis Letters, 1998, 51, 163-167.	2.6	65
87	Two conversion maxima at 373 and 573K in the reduction of nitrogen monoxide with hydrogen over Pd/TiO2 catalyst. Catalysis Today, 1998, 45, 135-138.	4.4	144
88	Partial oxidation of methane to synthesis gas over supported iridium catalysts. Applied Catalysis A: General, 1998, 169, 281-290.	4.3	74
89	Dehydrogenation of ethane over gallium oxide in the presence of carbon dioxide. Chemical Communications, 1998, , 1025-1026.	4.1	154
90	Formation of Oxygenates in the Propane Oxidation over K+Modified Fe/SiO2Catalyst. Chemistry Letters, 1998, 27, 327-328.	1.3	14

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91	Two Reaction Paths at Different Temperatures in the Reduction of Nitrogen Monoxide with Hydrogen over Supported Palladium Catalysts. Chemistry Letters, 1998, 27, 595-596.	1.3	5
92	Optical recognition of CO and H2 by use of gas-sensitive Au–Co3O4 composite films. Journal of Materials Chemistry, 1997, 7, 1779-1783.	6.7	200
93	Low-temperature water–gas shift reaction over gold deposited on TiO2. Chemical Communications, 1997, , 271-272.	4.1	179
94	Combined effects of small gold particles on the optical gas sensing by transition metal oxide films. Catalysis Today, 1997, 36, 135-141.	4.4	93
95	Partial Oxidation of Methane to Synthesis Gas with Iridium-loaded Titania Catalyst. Chemistry Letters, 1996, 25, 1029-1030.	1.3	9
96	Humidity-sensitive optical absorption of Co3O4 film. Sensors and Actuators B: Chemical, 1996, 32, 157-160.	7.8	63
97	Oxidation of methane to formaldehyde over FeSiO2 and Snî—,W mixed oxides. Catalysis Today, 1996, 32, 171-175.	4.4	68
98	Large optical CO sensitivity of NO2-pretreated Auî—,NiO composite films. Sensors and Actuators B: Chemical, 1996, 36, 513-516.	7.8	23
99	Optical CO detection by use of CuO/Au composite films. Sensors and Actuators B: Chemical, 1995, 25, 851-853.	7.8	47
100	Formation of methanol by the gas phase partial oxidation of methane under normal pressures. Journal of the Chemical Society Chemical Communications, 1995, , 93.	2.0	11
101	Photoinduced hydrogen production from an aqueous solution of ethylene glycol over ultrafine gold supported on TiO2. Journal of Photochemistry and Photobiology A: Chemistry, 1994, 77, 59-67.	3.9	81
102	Influence of dry operating conditions: observation of oscillations and low temperature CO oxidation over Co3O4 and Au/Co3O4 catalysts. Catalysis Letters, 1994, 25, 257-264.	2.6	164
103	Enhancement in the optical CO sensitivity of NiO film by the deposition of ultrafine gold particles. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 1011.	1.7	44
104	Partial oxidation of methane over silica catalysts promoted by 3d transition metal ions. Journal of the Chemical Society Chemical Communications, 1994, , 1609.	2.0	39
105	Low-Temperature Oxidation of CO over Gold Supported on TiO2, α-Fe2O3, and Co3O4. Journal of Catalysis, 1993, 144, 175-192.	6.2	2,148
106	Development of carbon monoxide detector using Au fine particles-doped α-Fe2O3. Sensors and Actuators B: Chemical, 1993, 14, 536-538.	7.8	37
107	Enhancing effect of gold deposition in the optical detection of reducing gases in air by metal oxide thin films. Sensors and Actuators B: Chemical, 1993, 14, 545-546.	7.8	23
108	Preparation of Highly Dispersed Gold on Titanium and Magnesium Oxide. Studies in Surface Science and Catalysis, 1991, , 695-704.	1.5	119

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109	Thin films of supported gold catalysts for CO detection. Sensors and Actuators B: Chemical, 1990, 1, 222-225.	7.8	77
110	Gold catalysts prepared by coprecipitation for low-temperature oxidation of hydrogen and of carbon monoxide. Journal of Catalysis, 1989, 115, 301-309.	6.2	3,040
111	XAFS studies of ultra-fine gold catalysts supported on hematite prepared from coprecipitated precursors. Physica B: Condensed Matter, 1989, 158, 183-184.	2.7	10
112	A selective CO sensor using Ti-doped α-Fe2O3 with coprecipitated ultrafine particles of gold. Sensors and Actuators, 1988, 13, 339-349.	1.7	120
113	Electrochromism in Iridium Oxide Films Prepared by Thermal Oxidation of Iridiumâ€Carbon Composite Films. Journal of the Electrochemical Society, 1987, 134, 570-575.	2.9	51
114	Novel Gold Catalysts for the Oxidation of Carbon Monoxide at a Temperature far Below 0 °C. Chemistry Letters, 1987, 16, 405-408.	1.3	2,872
115	Electrochemical reactions concerned with electrochromism of polyaniline film-coated electrodes. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1984, 177, 281-291.	0.1	384
116	Oxidative degradation pathway of polyaniline film electrodes. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1984, 177, 293-297.	0.1	352
117	Polyaniline film-coated electrodes as electrochromic display devices. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1984, 161, 419-423.	0.1	648
118	Role of Pt Overlayers on TiO2 Electrodes in Enhancement of the Rate of Cathodic Processes. Journal of the Electrochemical Society, 1983, 130, 1706-1711.	2.9	25
119	Effective surfaces of semiconductor catalysts for light-induced heterogeneous reactions evaluated by simultaneous photodeposition of both oxidation and reduction products. The Journal of Physical Chemistry, 1983, 87, 768-775.	2.9	47
120	Photoelectrochemical properties of Srî—,Feî—,Nb oxides having perovskite structure. Electrochimica Acta, 1982, 27, 1129-1133.	5.2	7
121	The role of surface flaws in competitive photoanodic processes at TiO2 electrodes. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1982, 138, 105-119.	0.1	12
122	Factors Governing the Competition in Electrochemical Reactions at Illuminated Semiconductors. ACS Symposium Series, 1981, , 131-143.	0.5	1
123	Effects of illumination intensity and solution pH on the competitive oxidation of halide ions and water at an illuminated TiO2 electrode. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1981, 122, 133-145.	0.1	17
124	Influence of the reactivity of reducing agents on anodic photocurrents at TiO2 electrodes. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1981, 124, 179-188.	0.1	11
125	Effects of illumination intensity and solution pH on the competitive oxidation of halide ions and water at an illuminated TiO2 electrode. Journal of Electroanalytical Chemistry (1959), 1981, 122, 133-145.	0.1	0
126	EFFECT OF ILLUMINATION INTENSITY ON STABILIZATION OF ZnO PHOTOANODES IN HALIDE SOLUTIONS. Chemistry Letters, 1979, 8, 457-460.	1.3	7