Isao Nakamura

List of Publications by Year
in descending order

64 papers	4,098 citations	126858 33 h-index	114418 63 g-index
67 all docs	67 docs citations	67 times ranked	4814 citing authors

#	Article	IF	Citations
1	Role of oxygen vacancy in the plasma-treated TiO2 photocatalyst with visible light activity for NO removal. Journal of Molecular Catalysis A, 2000, 161, 205-212.	4.8	1,110
2	Hydrogen Dissociation by Gold Clusters. Angewandte Chemie - International Edition, 2009, 48, 9515-9518.	7.2	277
3	Mechanism and Active Sites of the Oxidation of CO over Au/TiO₂. Angewandte Chemie - International Edition, 2011, 50, 10144-10147.	7.2	206
4	The kinetics and mechanism of methanol synthesis by hydrogenation of CO2 over a Zn-deposited Cu(111) surface. Surface Science, 1997, 383, 285-298.	0.8	185
5	Heterogeneous Catalysis by Gold. Advances in Catalysis, 2012, 55, 1-126.	0.1	139
6	Phosphorus-modified ZSM-5 for conversion of ethanol to propylene. Applied Catalysis A: General, 2010, 384, 201-205.	2.2	126
7	A Surface Science Investigation of Methanol Synthesis over a Zn-Deposited Polycrystalline Cu Surface. Journal of Catalysis, 1996, 160, 65-75.	3.1	121
8	Preparation of Visible-Light-Responsive Titanium Oxide Photocatalysts by Plasma Treatment. Chemistry Letters, 2000, 29, 1354-1355.	0.7	85
9	Promotional effect of SO2 on the activity of Ir/SiO2 for NO reduction with CO under oxygen-rich conditions. Journal of Catalysis, 2005, 229, 197-205.	3.1	83
10	The synthesis of methanol and the reverse water-gas shift reaction over Zn-deposited Cu(100) and Cu(110) surfaces: comparison with Zn/Cu(111). Surface Science, 1998, 400, 387-400.	0.8	79
11	Structure-Dependent Kinetics for Synthesis and Decomposition of Formate Species over Cu(111) and Cu(110) Model Catalysts. Journal of Physical Chemistry B, 2001, 105, 1355-1365.	1.2	79
12	Evidence for a special formate species adsorbed on the Cuâ€“Zn active site for methanol synthesis. Surface Science, 1998, 402-404, 92-95.	0.8	75
13	Methanol synthesis over a Zn-deposited copper model catalyst. Catalysis Letters, 1995, 31, 325-331.	1.4	72
14	A model catalyst for methanol synthesis: Znâ€deposited and Znâ€free Cu surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 1464-1468.	0.9	71
15	Effects of added phosphorus on conversion of ethanol to propylene over ZSM-5 catalysts. Applied Catalysis A: General, 2012, 423-424, 162-167.	2.2	67
16	Role of Water in CO Oxidation on Gold Catalysts. Catalysis Letters, 2014, 144, 1475-1486.	1.4	66
17	Role of metal oxide supports in NH 3 decomposition over Ni catalysts. Applied Catalysis A: General, 2016, 524, 45-49.	2.2	65
18	Model studies of methanol synthesis on copper catalysts. Studies in Surface Science and Catalysis, 1996, 101, 1389-1399.	1.5	61

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19	Methanol Synthesis from CO and CO2Hydrogenations over Supported Palladium Catalysts. Bulletin of the Chemical Society of Japan, 2002, 75, 1393-1398.	2.0	56
20	Adsorption behavior and reaction properties of NO and CO on Rh(111). Surface Science, 2006, 600, 3235-3242.	0.8	51
21	Adsorption and Reactions of NO on Clean and CO-Precovered Ir(111). Journal of Physical Chemistry B, 2005, 109, 17603-17607.	1.2	48
22	Study of active sites on the MFI zeolite catalysts for the transformation of ethanol into propylene. Journal of Molecular Catalysis A, 2010, 328, 114-118.	4.8	48
23	Adsorption and decomposition of NO on Pd surfaces. Surface Science, 2002, 514, 409-413.	0.8	47
24	Difference between the mechanisms of propylene production from methanol and ethanol over ZSM-5 catalysts. Applied Catalysis A: General, 2013, 467, 380-385.	2.2	47
25	Mechanism for NO Photooxidation over the Oxygen-Deficient TiO2Powder under Visible Light Irradiation. Chemistry Letters, 2000, 29, 1276-1277.	0.7	44
26	Active Sites for Hydrogen Dissociation over TiO_{<i>x</i>}/Au(111) Surfaces. Journal of Physical Chemistry C, 2011, 115, 16074-16080.	1.5	41
27	Methanol synthesis by the hydrogenation of CO2 over Zn-deposited Cu(111) and Cu(110) surfaces. Catalysis Letters, 1995, 35, 297-302.	1.4	40
28	Effects of added 3d transition-metals on Ag-based catalysts for direct epoxidation of propylene by oxygen. Applied Catalysis A: General, 2005, 294, 34-39.	2.2	39
29	Methanol synthesis by hydrogenation of CO2 over a Zn-deposited Cu(111): formate intermediate. Applied Surface Science, 1997, 121-122, 583-586.	3.1	37
30	Synthesis and decomposition of formate on Cu(111) and Cu(110) surfaces: Structure sensitivity. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 1592-1595.	0.9	36
31	Catalytic performance of H-ZSM-5 zeolites for conversion of ethanol or ethylene to propylene: Effect of reaction pressure and SiO2/Al2O3 ratio. Catalysis Communications, 2017, 91, 62-66.	1.6	36
32	Selective Dissociation of O3 and Adsorption of CO on Various Au Single Crystal Surfaces. Catalysis Letters, 2009, 129, 400-403.	1.4	35
33	Effect of surface structure of supported palladium catalysts on the activity for direct decomposition of nitrogen monoxide. Journal of Catalysis, 2003, 218, 405-410.	3.1	33
34	Highly selective catalytic conversion of ethanol to propylene over yttrium-modified zirconia catalyst. Catalysis Communications, 2017, 90, 10-13.	1.6	32
35	Effects of particle size on catalytic conversion of ethanol to propylene over H-ZSM-5 catalystsâ€"Smaller is better. Catalysis Communications, 2016, 73, 27-33.	1.6	30
36	Kinetics and mechanism of NO reduction with CO on Ir surfaces. Journal of Catalysis, 2008, 253, 139-147.	3.1	29

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37	H₂O Dissociation at the Perimeter Interface between Gold Nanoparticles and TiO₂ Is Crucial for Oxidation of CO. ACS Catalysis, 2020, 10, 2517-2521.	5.5	29
38	Role of tungsten in promoting selective reduction of NO with CO over Ir/WO3â€“SiO2 catalysts. Catalysis Letters, 2006, 112, 133-138.	1.4	23
39	Comprehensive study combining surface science and real catalyst for NO direct decomposition. Chemical Communications, 2002, , 2816-2817.	2.2	22
40	Catalytic Active Site for NO Decomposition Elucidated by Surface Science and Real Catalyst. Catalysis Surveys From Asia, 2005, 9, 207-215.	1.0	22
41	Adsorption and reactivity of SO2 on Ir(111) and Rh(111). Surface Science, 2007, 601, 1615-1622.	0.8	19
42	Excellent Promoting Effect of Ba Addition on the Catalytic Activity of Ir/WO3â€“SiO2for the Selective Reduction of NO with CO. Chemistry Letters, 2006, 35, 420-421.	0.7	17
43	Effect of Catalyst Preparation Method on Ammonia Decomposition Reaction over Ru/MgO Catalyst. Bulletin of the Chemical Society of Japan, 2020, 93, 1186-1192.	2.0	16
44	A density functional study of NO adsorption and decomposition on Ni(211) and Pd(211) surfaces. Journal of Chemical Physics, 2005, 122, 014703.	1.2	15
45	Studies of NO Adsorption on Pt(110)-(1Ã—2) and (1Ã—1) Surfaces Using Density Functional Theory. Journal of Physical Chemistry B, 2005, 109, 10312-10318.	1.2	15
46	Continuous-flow synthesis of Pd@Pt core-shell nanoparticles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 620, 126607.	2.3	15
47	Adsorption and decomposition of NO on K-deposited Pd(111). Surface Science, 2003, 544, 45-50.	0.8	13
48	Adsorption and decomposition of NO on stepped and K-deposited Pd surfaces: a comparison of NO stretching vibrational frequencies calculated by density functional theory and measured by infrared spectroscopy. Surface Science, 2004, 571, 102-116.	0.8	13
49	Adsorption Behavior and Reaction Properties of NO and CO on Ir(111) and Rh(111). Catalysis Surveys From Asia, 2009, 13, 22-29.	1.0	13
50	Fundamental roles of ZnO and ZrO₂in the conversion of ethanol to 1,3-butadiene over ZnOâ€“ZrO₂/SiO₂. Catalysis Science and Technology, 2020, 10, 7531-7541.	2.1	13
51	Characteristics and Photocatalytic Properties of Thin Film Prepared by Sputter Deposition and Post-N⁺Ion Implantation. Advances in Materials Science and Engineering, 2012, 2012, 1-7.	1.0	12
52	Direct decomposition of nitrogen monoxide over a K-deposited Co(0001) surface: Comparison to K-doped cobalt oxide catalysts. Journal of Electron Spectroscopy and Related Phenomena, 2006, 150, 150-154.	0.8	10
53	Reaction properties of NO and CO over an Ir(211) surface. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 1143-1146.	0.9	10
54	Flow reactor approach for the facile and continuous synthesis of efficient Pd@Pt core-shell nanoparticles for acceptorless dehydrogenative synthesis of pyrimidines from alcohols and amidines. Applied Catalysis A: General, 2021, 619, 118158.	2.2	9

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55	Influence of Au and TiO_2 structures on hydrogen dissociation over TiO_2/Au(100). Surface Science, 2012, 606, 1581-1585.	0.8	8
56	Mechanism and active sites of CO oxidation over single-crystal Au surfaces and a Au/TiO_2 (110) model surface. Chinese Journal of Catalysis, 2016, 37, 1676-1683.	6.9	8
57	High-throughput development of highly active catalyst system to convert bioethanol to 1,3-butadiene. Reaction Chemistry and Engineering, 2021, 6, 1381-1385.	1.9	7
58	NO Decomposition on an Mn-Deposited Pd(100) Surface. Catalysis Letters, 2003, 87, 91-96.	1.4	4
59	Direct synthesis of triazines from alcohols and amidines using supported Pt nanoparticle catalysts <i>via</i> the acceptorless dehydrogenative methodology. Catalysis Science and Technology, 2022, 12, 4679-4687.	2.1	4
60	Effect of Water on Low-Temperature CO Oxidation Over a Au/Al_2O_3 Model Catalyst. Catalysis Letters, 2014, 144, 1113-1117.	1.4	2
61	Adsorption and Reaction Properties of NO and CO over the Ir and Rh Surfaces. Journal of the Vacuum Society of Japan, 2009, 52, 61-66.	0.3	1
62	Structure and NO reactivity of Zr-deposited Pd surfaces. Applied Surface Science, 2005, 240, 77-84.	3.1	0
63	Reactivity of NO over K-deposited Pd(111) and surface structure of the catalyst. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 1051-1054.	0.9	0
64	Effect of Al_2O_3 support on morphology and NO reactivity of Rh. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2009, 27, 895-899.	0.9	0