Akira Yamaguchi

List of Publications by Year
in descending order

122	2,468	218677	254184
papers	citations	26 h-index	43 g-index

123	123	123	2770
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quasi-Monte Carlo sampling method for simulation-based dynamic probabilistic risk assessment of nuclear power plants. Journal of Nuclear Science and Technology, 2022, 59, 357-367.	1.3	5
2	New insights into error accumulation due to biased particle distribution in semi-implicit particle methods. Computer Methods in Applied Mechanics and Engineering, 2022, 388, 114219.	6.6	17
3	Direct imaging of visible-light-induced one-step charge separation at the chromium(<scp>iii</scp>) oxideâ€“strontium titanate interface. Journal of Materials Chemistry A, 2022, 10, 752-761.	10.3	6
4	Multi-Regression Analysis of CO₂ Electroreduction Activities on Metal Sulfides. Journal of Physical Chemistry C, 2022, 126, 2772-2779.	3.1	9
5	Charge partitioning by intertwined metal-oxide nano-architectural networks for the photocatalytic dry reforming of methane. Chem Catalysis, 2022, 2, 321-329.	6.1	9
6	Inactivation of various variant types of SARS-CoV-2 by indoor-light-sensitive TiO2-based photocatalyst. Scientific Reports, 2022, 12, 5804.	3.3	29
7	Photocatalytic dry reforming of methane by rhodium supported monoclinic TiO2-B nanobelts. Journal of Energy Chemistry, 2022, 71, 562-571.	12.9	23
8	Gasâ€Phase Photoelectrocatalysis Mediated by Oxygen Ions for Uphill Conversion of Greenhouse Gases. ChemPhotoChem, 2021, 5, 275-281.	3.0	7
9	Active site separation of photocatalytic steam reforming of methane using a gas-phase photoelectrochemical system. Chemical Communications, 2021, 57, 8007-8010.	4.1	7
10	Tuning the intermediate reaction barriers by a CuPd catalyst to improve the selectivity of CO2 electroreduction to C2 products. Chinese Journal of Catalysis, 2021, 42, 1500-1508.	14.0	56
11	In situ FTIR study of CO₂ reduction on inorganic analogues of carbon monoxide dehydrogenase. Chemical Communications, 2021, 57, 3267-3270.	4.1	26
12	Photocatalytic Methane Reforming: Recent Advances. Catalysts, 2021, 11, 18.	3.5	12
13	Fabrication of Hydrogen Boride Thin Film by Ion Exchange in MgB2. Molecules, 2021, 26, 6212.	3.8	7
14	Visible-Light-Induced CO₂ Reduction by Mixed-Valence Tin Oxide. ACS Applied Energy Materials, 2021, 4, 13415-13419.	5.1	11
15	Recent advances in the utilization of copper sulfide compounds for electrochemical CO2 reduction. Nano Materials Science, 2020, 2, 235-247.	8.8	45
16	Metal Carbide as A Lightâ€Harvesting and Anticoking Catalysis Support for Dry Reforming of Methane. Global Challenges, 2020, 4, 1900067.	3.6	17
17	Acid Assisted Synthesis of HB Sheets through Exfoliation of MgB₂ Bulk in Organic Media. Chemistry Letters, 2020, 49, 1194-1196.	1.3	17
18	Green light active photocatalyst for complete oxidation of organic molecules. Chemical Communications, 2020, 56, 9210-9213.	4.1	7

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19	Crystal Structure-mediated Difference in Spectroscopic Behavior of OER Intermediate on MnO₂ in the Presence of Pyridine. Chemistry Letters, 2020, 49, 481-484.	1.3	0
20	Temperature dependence on bandgap of semiconductor photocatalysts. Journal of Chemical Physics, 2020, 152, 231101.	3.0	30
21	Visible-light-driven dry reforming of methane using a semiconductor-supported catalyst. Chemical Communications, 2020, 56, 4611-4614.	4.1	46
22	Hydrogen Boride Sheets as Reductants and the Formation of Nanocomposites with Metal Nanoparticles. Chemistry Letters, 2020, 49, 789-793.	1.3	16
23	Development of Source Term Evaluation Method Applicable to Dynamic PRA. Transactions of the Atomic Energy Society of Japan, 2020, 19, 34-46.	0.3	0
24	Photocatalytic uphill conversion of natural gas beyond the limitation of thermal reaction systems. Nature Catalysis, 2020, 3, 148-153.	34.4	194
25	Visible-light-driven photocatalysis via reductant-to-band charge transfer in Cr(III) nanocluster-loaded SrTiO3 system. Applied Catalysis B: Environmental, 2020, 270, 118883.	20.2	16
26	Synthesis of CaFe₂O₄ Nanorod Thin Film Using Molten Salt Method and Analysis of Its Photoelectrochemical Properties. Chemistry Letters, 2020, 49, 1462-1464.	1.3	3
27	Decomposition of 2-naphthol in water and antibacterial property by NiO and CeO<i>_x</i> modified TiO₂ in the dark or under visible light. Journal of the Ceramic Society of Japan, 2019, 127, 688-695.	1.1	3
28	Photoinduced hydrogen release from hydrogen boride sheets. Nature Communications, 2019, 10, 4880.	12.8	63
29	Electrochemical characterization of manganese oxides as a water oxidation catalyst in proton exchange membrane electrolysers. Royal Society Open Science, 2019, 6, 190122.	2.4	23
30	Effects of MoO modification on photocatalytic activity of hydroxyapatite and Ti-doped hydroxyapatite. Advanced Powder Technology, 2019, 30, 1617-1624.	4.1	12
31	Photocatalytic Partial Oxidation of Methane on Palladiumâ€Loaded Strontium Tantalate. Solar Rrl, 2019, 3, 1900076.	5.8	15
32	Optical properties of single crystalline copper iodide with native defects: Experimental and density functional theoretical investigation. Journal of Applied Physics, 2019, 125, .	2.5	26
33	CO2 oxidative coupling of methane using an earth-abundant CaO-based catalyst. Scientific Reports, 2019, 9, 15454.	3.3	14
34	Synergistic photothermal and photochemical partial oxidation of methane over noble metals incorporated in mesoporous silica. Chemical Communications, 2019, 55, 13765-13768.	4.1	19
35	Geoelectrochemical CO production: Implications for the autotrophic origin of life. Science Advances, 2018, 4, eaao7265.	10.3	41
36	Evidence that Crystal Facet Orientation Dictates Oxygen Evolution Intermediates on Rutile Manganese Oxide. Advanced Functional Materials, 2018, 28, 1706319.	14.9	50

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37	A Cuâ€“Zn nanoparticle promoter for selective carbon dioxide reduction and its application in visible-light-active Z-scheme systems using water as an electron donor. Chemical Communications, 2018, 54, 3947-3950.	4.1	28
38	Dynamic scenario quantification for level 2 PRA of sodium-cooled fast reactor based on continuous Markov chain and Monte Carlo method coupled with meta-model of thermalâ€“hydraulic analysis. Journal of Nuclear Science and Technology, 2018, 55, 850-858.	1.3	7
39	Photocatalytic reduction of CO2 on Cu2O-loaded Zn-Cr layered double hydroxides. Applied Catalysis B: Environmental, 2018, 224, 783-790.	20.2	129
40	Nanoporous Nickel Composite Catalyst for the Dry Reforming of Methane. ACS Omega, 2018, 3, 16651-16657.	3.5	9
41	Growth of Large Single Crystals of Copper Iodide by a Temperature Difference Method Using Feed Crystal Under Ambient Pressure. Crystal Growth and Design, 2018, 18, 6748-6756.	3.0	12
42	Visible-Light-Active Photoelectrochemical Z-Scheme System Based on Top 5 Clarke-Number Elements. ACS Applied Energy Materials, 2018, 1, 5954-5959.	5.1	10
43	BIAN-Fluorene Copolymer Bearing Ruthenium Pendant as Sensitizer of Titanium Nanotubes for Photocatalytic Hydrogen Evolution. Journal of the Electrochemical Society, 2018, 165, J3166-J3172.	2.9	6
44	Photocatalytic CO₂ Reduction Using a Pristine Cu₂ZnSnS₄ Film Electrode under Visible Light Irradiation. Journal of Physical Chemistry C, 2018, 122, 21695-21702.	3.1	35
45	Photo-assisted Dry Reforming of Methane over Strontium Titanate. Chemistry Letters, 2018, 47, 935-937.	1.3	19
46	Preparation of Polyoxometalate-based Photo-responsive Membranes for the Photo-activation of Manganese Oxide Catalysts. Journal of Visualized Experiments, 2018, , .	0.3	2
47	Direct Observation of Interfacial Charge Transfer between Rutile TiO₂ and Ultrathin CuO_x Film by Visibleâ€Light Illumination and Its Application for Efficient Photocatalysis. ChemCatChem, 2018, 10, 3666-3670.	3.7	22
48	Selective electro- or photo-reduction of carbon dioxide to formic acid using a Cuâ€“Zn alloy catalyst. Journal of Materials Chemistry A, 2017, 5, 12113-12119.	10.3	92
49	Element strategy of oxygen evolution electrocatalysis based on in situ spectroelectrochemistry. Chemical Communications, 2017, 53, 7149-7161.	4.1	40
50	Strontium Titanate Based Artificial Leaf Loaded with Reduction and Oxidation Cocatalysts for Selective CO₂ Reduction Using Water as an Electron Donor. ACS Applied Materials & Interfaces, 2017, 9, 20613-20619.	8.0	36
51	Molybdenum Sulfide: A Bioinspired Electrocatalyst for Dissimilatory Ammonia Synthesis with Geoelectrical Current. Journal of Physical Chemistry C, 2017, 121, 2154-2164.	3.1	40
52	Efficiency of Oxygen Evolution on Iridium Oxide Determined from the pH Dependence of Charge Accumulation. Journal of Physical Chemistry C, 2017, 121, 17873-17881.	3.1	40
53	Design of Metal-to-Metal Charge-Transfer Chromophores for Visible-Light Activation of Oxygen-Evolving Mn Oxide Catalysts in a Polymer Film. Chemistry of Materials, 2017, 29, 7234-7242.	6.7	5
54	2ï¼ŽMné…¸åŒ–ç‰©ã®ç‰¹ç•°ãªé»æ°—åŒ–å¦çš„æŒ™å‹•ã,‰è¦‹ãˆã¦ããŸé«˜æ´»æ€§é…¸ç´ ç™ºç”Ÿè§¦åª’ã®åŸºæœ¬è¨è¨ˆæŒ‡é‡ E		1.4

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55	Legitimate intermediates of oxygen evolution on iridium oxide revealed by in situ electrochemical evanescent wave spectroscopy. Physical Chemistry Chemical Physics, 2016, 18, 15199-15204.	2.8	40
56	Stability of organic compounds on the oxygen-evolving center of photosystem II and manganese oxide water oxidation catalysts. Chemical Communications, 2016, 52, 13760-13763.	4.1	18
57	Evaluation of the Fuel Melting Character of FBR Core Caused by Seismic Reactivity Insertion. Transactions of the Atomic Energy Society of Japan, 2016, 15, 133-145.	0.3	0
58	Special Issue on the 10th International Topical Meeting on Nuclear Thermal Hydraulics, Operation and Safety (NUTHOS-10). Journal of Nuclear Science and Technology, 2016, 53, 613-613.	1.3	0
59	Water Splitting Using Electrochemical Approach. Lecture Notes in Energy, 2016, , 175-189.	0.3	1
60	CO2 Reduction Using an Electrochemical Approach from Chemical, Biological, and Geological Aspects in the Ancient and Modern Earth. Lecture Notes in Energy, 2016, , 213-228.	0.3	3
61	Numerical study on structural integrity of inner barrel caused by thermal stratification in upper plenum of Monju. Journal of Nuclear Science and Technology, 2016, 53, 554-565.	1.3	2
62	Electrochemical CO2 Reduction by Ni-containing Iron Sulfides: How Is CO2 Electrochemically Reduced at Bisulfide-Bearing Deep-sea Hydrothermal Precipitates?. Electrochimica Acta, 2014, 141, 311-318.	5.2	100
63	Regulating proton-coupled electron transfer for efficient water splitting by manganese oxides at neutral pH. Nature Communications, 2014, 5, 4256.	12.8	151
64	In situ UV-vis Absorption Spectra of Intermediate Species for Oxygen-Evolution Reaction on the Surface of MnO2 in Neutral and Alkaline Media. Electrochemistry, 2014, 82, 325-327.	1.4	25
65	Multielectron-transfer reactions at single Cu(ii) centers embedded in polyoxotungstates driven by photo-induced metal-to-metal charge transfer from anchored Ce(iii) to framework W(vi). Chemical Communications, 2012, 48, 2964.	4.1	25
66	Visible-Light-Absorbing Polyoxometalates as Building Blocks for All-Inorganic Photosynthetic Assemblies. ECS Meeting Abstracts, 2012, , .	0.0	0
67	Hydrogenation and Dehydrogenation Properties of [AlN-Pd]/Y and [AlOx-Pd]/[AlN-Pd]/Y Films. Materials Transactions, 2007, 48, 635-636.	1.2	2
68	Oxidation Behavior of Al4SiC4-SiC Sintered Bodies.. Journal of the Ceramic Society of Japan, 2003, 111, 126-132.	1.3	12
69	Densification and Improvement of Slaking Resistance of Calcia Ceramics by Addition of MgO.. Journal of the Ceramic Society of Japan, 2003, 111, 181-185.	1.3	0
70	Thermal Conductivity and Temperature Dependence of Linear Thermal Expansion Coefficient of Al4SiC4 Sintered Bodies Prepared by Pulse Electronic Current Sintering. Journal of the Ceramic Society of Japan, 2003, 111, 348-351.	1.3	33
71	Temperature Dependence of Electrical Resistivity of the Al4SiC4 Sintered Bodies Prepared by Pulse Electronic Current Sintering. Journal of the Ceramic Society of Japan, 2003, 111, 267-270.	1.3	14
72	Thermal Conductivity and Temperature Dependence of Electrical Resistivity of Al4SiC4-SiC Sintered Bodies Prepared by Pulse Electronic Current Sintering. Journal of the Ceramic Society of Japan, 2003, 111, 466-470.	1.3	12

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73	Fabrication and Oxidation Resistance of Al4SiC4 Body.. Journal of the Ceramic Society of Japan, 2002, 110, 1010-1015.	1.3	22
74	Sintering of CaO-ZrO2 Composite and Its Property of Slaking Resistance.. Journal of the Ceramic Society of Japan, 2002, 110, 1058-1061.	1.3	7
75	Size Control of Spherical Leucite Crystals.. Journal of the Ceramic Society of Japan, 2002, 110, 27-31.	1.3	4
76	Carbonation of CaO Clinkers and Improvement of Their Hydration Resistance.. Journal of the Ceramic Society of Japan, 2002, 110, 512-517.	1.3	12
77	Formation of Solid Solution (Al2OC)1-x(AlN)x and Its Application in Spinel-Carbon Clinker Preparation.. Journal of the Ceramic Society of Japan, 2002, 110, 6-11.	1.3	5
78	Effect of Al and Alumina Additions on Oxidation Rate of MgO-C Refractory.. Journal of the Ceramic Society of Japan, 2002, 110, 699-702.	1.3	2
79	Synthesis of .BETA.-Al2O3 Platelets from .GAMMA.-Al2O3 and NaF.. Journal of the Ceramic Society of Japan, 2002, 110, 587-590.	1.3	0
80	Densification and Improvement of Slaking Resistance of Calcia Clinker by Addition of ZrO2.. Journal of the Ceramic Society of Japan, 2002, 110, 975-979.	1.3	2
81	Microstructure of Sputtered CoFe2O4 Film. Physica Status Solidi A, 2002, 191, 359-369.	1.7	16
82	Preparation and Properties of Aluminum Oxynitride (.GAMMA.-AlON).. Journal of the Ceramic Society of Japan, 2001, 109, 310-314.	1.3	6
83	Synthesis of MgAl2O4 (Spinel) Powder Using MgCl2.. Journal of the Ceramic Society of Japan, 2001, 109, 894-896.	1.3	5
84	Thermoelastic Martensitic Transformation and Shape Memory Effect in Sr2(Si, Ge)O4.. Journal of the Ceramic Society of Japan, 2001, 109, 1017-1022.	1.3	1
85	Oxidation of Aluminum Oxynitride-Boron Nitride (AlON-BN) Composite Prepared by Reaction Sintering.. Journal of the Ceramic Society of Japan, 2001, 109, 94-99.	1.3	7
86	Preparation and Properties of AlON-SiAlON Composites.. Journal of the Ceramic Society of Japan, 2001, 109, 434-439.	1.3	7
87	Formation of Spinel-Carbon Composite Clinker.. Journal of the Ceramic Society of Japan, 2001, 109, 851-857.	1.3	1
88	Oxidation Protection of MgOâ€“C Refractories by Means of Al₈B₄C₇. Journal of the American Ceramic Society, 2001, 84, 577-582.	3.8	45
89	Characterization of Liquid Exsolved by Remelting Reaction of Belite. Journal of the American Ceramic Society, 2001, 84, 1155-1160.	3.8	9
90	Synthesis of Al8B4C7 and Its Oxidation Properties in Air.. Journal of the Ceramic Society of Japan, 2000, 108, 375-380.	1.3	17

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91	Antioxidation Behavior and Effect of Al8B4C7 Added to Carbon-Containing Refractories.. Journal of the Ceramic Society of Japan, 2000, 108, 818-822.	1.3	19
92	Synthesis of Needlelike Leucite Crystals Using Potassium Sulfate Flux.. Journal of the Ceramic Society of Japan, 2000, 108, 710-713.	1.3	4
93	Synthesis of Spherical Leucite Crystals.. Journal of the Ceramic Society of Japan, 2000, 108, 40-44.	1.3	6
94	Some properties of sintered Al8B4C7. Journal of Materials Science Letters, 2000, 19, 1045-1046.	0.5	21
95	Synthesis of Î±â€“Al₂O₃ platelets using sodium sulfate flux. Journal of Materials Research, 1999, 14, 4667-4672.	2.6	55
96	Near-noble transition-metal-based ohmic contacts to p-InP: Comparison of Ni and Pd as a base metal. Journal of Applied Physics, 1999, 85, 7792-7796.	2.5	8
97	Fabrication and properties of novel composites in the system Alâ€“Zrâ€“C. Journal of Materials Science, 1998, 33, 4835-4842.	3.7	20
98	Effect of ZrO₂ on Sintering Characteristics of MgO and MgO-Al₂O₃ System Powder Compacts. Journal of the Ceramic Society of Japan, 1997, 105, 655-659.	1.3	2
99	Synthesis of Î²-SiAlON Whiskers from Pyrophyllite. Journal of the Ceramic Society of Japan, 1997, 105, 821-823.	1.3	13
100	Preparation and characterization of ceramic porous sheet composed of platelet (Cr, Al)2O3 crystals. Journal of Materials Science, 1997, 32, 5703-5708.	3.7	2
101	Sintering Characteristics in the System MgO-Cr₂O₃ and Formation of (Mg_{8-x}Cr_x)Cr₁₆O₃₂ (0â‰xâ‰2.88). Journal of the Ceramic Society of Japan, 1996, 104, 1121-1124.	1.3	1
102	Effects of CaO and Al₂O₃ Added to MgO-C Refractories on MgO-C Reaction. Journal of the Ceramic Society of Japan, 1996, 104, 84-88.	1.3	14
103	Hydration Resistances and Reactions with CO of Al₄O₄C and Al₂OC Formed in Carbon-Containing Refractories with Al. Journal of the Ceramic Society of Japan, 1996, 104, 393-398.	1.3	34
104	Growth of Cr2O3 whiskers by the vapour-liquid-solid mechanism. Journal of Materials Science, 1996, 31, 317-322.	3.7	3
105	Synthesis of MgAl2O4 Whiskers by an Oxidation-Reduction Reaction. Journal of the American Ceramic Society, 1996, 79, 491-494.	3.8	18
106	Growth Morphology and Mechanism of a Hollow ZnO Polycrystal. Journal of the American Ceramic Society, 1996, 79, 1121-1123.	3.8	15
107	Preparation of Porous Cr3C2 Grains with Cr2O3. Journal of the American Ceramic Society, 1996, 79, 2503-2505.	3.8	7
108	Effect of Refractory Oxides on the Oxidation of Graphite and Amorphous Carbon. Journal of the American Ceramic Society, 1996, 79, 2509-2511.	3.8	41

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109	Synthesis and Some Properties of Al₄SiC₄. Journal of the Ceramic Society of Japan, 1995, 103, 20-24.	1.3	41
110	Effect of Al₄SiC₄ Addition to Carbon-Containing Refractories. Journal of the Ceramic Society of Japan, 1995, 103, 235-239.	1.3	29
111	Crystallization and Oxidation Behavior of Carbon from Phenolic Resin in MgO-C and Al₂O₃-C Refractories. Journal of the Ceramic Society of Japan, 1995, 103, 274-277.	1.3	8
112	Mechanism of Metal Precipitating in Alumina Grain in Sintered Al₂O₃-C. Journal of the Ceramic Society of Japan, 1995, 103, 370-373.	1.3	2
113	Hydration of Synthesized Al₄C₃ and Its Prevention Effect by Si Addition. Journal of the Ceramic Society of Japan, 1995, 103, 475-478.	1.3	4
114	Growth of Hollow Cr3C2Polycrystals with Cr2O3. Journal of the American Ceramic Society, 1995, 78, 1985-1988.	3.8	3
115	Synthesis of Mg2SiO4Whiskers by an Oxidation-Reduction Reaction. Journal of the American Ceramic Society, 1995, 78, 1989-1991.	3.8	5
116	Temperature dependence of growth rate for diamonds grown using a hot filament assisted chemical vapor deposition method at low substrate temperatures. Applied Physics Letters, 1994, 64, 1306-1308.	3.3	22
117	Behavior of Carbon Obtained from Pitch and Resin Added to Carbon-Containing Refractories. Journal of the Ceramic Society of Japan, 1994, 102, 73-77.	1.3	4
118	Effects of B₄C on the Crystallization and Oxidation Resistance of Carbon from Resin. Journal of the Ceramic Society of Japan, 1994, 102, 830-834.	1.3	14
119	Behavior of Al on Microstructure and Properties of MgO-C-Al Refractories. Journal of the Ceramic Society of Japan, 1993, 101, 475-479.	1.3	11
120	Effect of backâ€surface polycrystalline silicon layer on oxygen precipitation in Czochralski silicon wafers. Applied Physics Letters, 1989, 54, 1748-1750.	3.3	16
121	Effect of oxidationâ€induced stacking faults on dielectric breakdown characteristics of thermal silicon dioxide. Journal of Applied Physics, 1989, 66, 5651-5653.	2.5	5
122	Pseudo Two-Dimensional Analysis of Fluid-Structure Interaction due to Pressure Wave Propagation in Straight Pipe. Journal of Nuclear Science and Technology, 1982, 19, 845-851.	1.3	0