Tetsuo Umegaki

List of Publications by Year
in descending order

90 papers	1,872 citations	430442 18 h-index	276539 41 g-index
91 all docs	91 docs citations	91 times ranked	1764 citing authors

#	Article	IF	Citations
1	Boron- and nitrogen-based chemical hydrogen storage materials. International Journal of Hydrogen Energy, 2009, 34, 2303-2311.	3.8	337
2	Bimetallic Auâ€“Ni Nanoparticles Embedded in SiO₂ Nanospheres: Synergetic Catalysis in Hydrolytic Dehydrogenation of Ammonia Borane. Chemistry - A European Journal, 2010, 16, 3132-3137.	1.7	196
3	Preparation and catalysis of poly(N-vinyl-2-pyrrolidone) (PVP) stabilized nickel catalyst for hydrolytic dehydrogenation of ammonia borane. International Journal of Hydrogen Energy, 2009, 34, 3816-3822.	3.8	170
4	Hollow Niâ€“SiO2 nanosphere-catalyzed hydrolytic dehydrogenation of ammonia borane for chemical hydrogen storage. Journal of Power Sources, 2009, 191, 209-216.	4.0	138
5	Coâ€“SiO2 nanosphere-catalyzed hydrolytic dehydrogenation of ammonia borane for chemical hydrogen storage. Journal of Power Sources, 2010, 195, 8209-8214.	4.0	76
6	Optimization of Cu oxide catalysts for methanol synthesis by combinatorial tools using 96 well microplates, artificial neural network and genetic algorithm. Catalysis Today, 2004, 89, 455-464.	2.2	51
7	Low-pressure DME synthesis with Cu-based hybrid catalysts using temperature-gradient reactor. Fuel, 2002, 81, 1605-1609.	3.4	49
8	Hydrogen production via steam reforming of ethyl alcohol over nano-structured indium oxide catalysts. Journal of Power Sources, 2008, 179, 566-570.	4.0	48
9	Metallic ruthenium nanoparticles for hydrogenation of supercritical carbon dioxide. Catalysis Science and Technology, 2016, 6, 409-412.	2.1	41
10	Development of Plasmonic Cu₂O/Cu Composite Arrays as Visible- and Near-Infrared-Light-Driven Plasmonic Photocatalysts. Langmuir, 2017, 33, 5685-5695.	1.6	40
11	Optimization of the Temperature Profile of a Temperature Gradient Reactor for DME Synthesis Using a Simple Genetic Algorithm Assisted by a Neural Network. Energy & Fuels, 2003, 17, 836-841.	2.5	39
12	Optimization of Catalyst for Methanol Synthesis by a Combinatorial Approach Using a Parallel Activity Test and Genetic Algorithm Assisted by a Neural Network. Energy & Fuels, 2003, 17, 850-856.	2.5	31
13	Fabrication of hollow metal oxideâ€“nickel composite spheres and their catalytic activity for hydrolytic dehydrogenation of ammonia borane. International Journal of Hydrogen Energy, 2013, 38, 1397-1404.	3.8	30
14	Fabrication of hollow nickel-silica composite spheres using l(+)-arginine and their catalytic performance for hydrolytic dehydrogenation of ammonia borane. Journal of Molecular Catalysis A, 2013, 371, 1-7.	4.8	23
15	Synthesis of orange-red-emitting Eu2+, Pr3+ codoped SrS long afterglow phosphor. Journal of Luminescence, 2014, 146, 42-45.	1.5	22
16	Porous Materials for Hydrolytic Dehydrogenation of Ammonia Borane. Materials, 2015, 8, 4512-4534.	1.3	22
17	Simultaneous Optimization of Preparation Conditions and Composition of the Methanol Synthesis Catalyst by an All-Encompassing Calculation on an Artificial Neural Network. Industrial & Engineering Chemistry Research, 2004, 43, 3282-3288.	1.8	21
18	Influence of preparation conditions on the morphology of hollow silicaâ€“alumina composite spheres and their activity for hydrolytic dehydrogenation of ammonia borane. Microporous and Mesoporous Materials, 2014, 196, 349-353.	2.2	21

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19	Fluorescent properties of a blue-to green-emitting Ce3+, Tb3+ codoped amorphous calcium silicate phosphors. Journal of Luminescence, 2012, 132, 2992-2996.	1.5	19
20	Fabrication of hollow silicaâ€"alumina composite spheres and their activity for hydrolytic dehydrogenation of ammonia borane. International Journal of Hydrogen Energy, 2014, 39, 17136-17143.	3.8	19
21	Effect of pH on formation of single-phase vaterite. Journal of Crystal Growth, 2019, 517, 35-38.	0.7	19
22	Optimization of Cu oxide catalyst for methanol synthesis under high CO2 partial pressure using combinatorial tools. Applied Catalysis A: General, 2004, 262, 207-214.	2.2	17
23	Development of a high performance Cu-based ternary oxide catalyst for oxidative steam reforming of methanol using an artificial neural network. Applied Catalysis A: General, 2008, 351, 210-216.	2.2	17
24	Design and Development of Cuâˆ'Zn Oxide Catalyst for Direct Dimethyl Ether Synthesis Using an Artificial Neural Network and Physicochemical Properties of Elements. Industrial & Engineering Chemistry Research, 2006, 45, 4905-4910.	1.8	16
25	Influence of Morphology of Silica-Alumina Composites on Their Activity for Hydrolytic Dehydrogenation of Ammonia Borane. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2016, 95, 480-486.	0.2	16
26	<i>In situ</i> synthesized hollow spheres of a silicaâ€"rutheniumâ€"nickel composite catalyst for the hydrolytic dehydrogenation of ammonia borane. New Journal of Chemistry, 2020, 44, 450-455.	1.4	16
27	Influence of preparation conditions of hollow silicaâ€"nickel composite spheres on their catalytic activity for hydrolytic dehydrogenation of ammonia borane. Journal of Alloys and Compounds, 2014, 588, 615-621.	2.8	15
28	Effect of l-arginine on the catalytic activity and stability of nickel nanoparticles for hydrolytic dehydrogenation of ammonia borane. Journal of Power Sources, 2012, 216, 363-367.	4.0	14
29	Fabrication of hollow spheres of Co3O4 for catalytic oxidation ofÂcarbon monoxide. Journal of Alloys and Compounds, 2016, 663, 68-76.	2.8	14
30	Influence of aluminum precursors on structure and acidic properties of hollow silicaâ€"alumina composite spheres, and their activity for hydrolytic dehydrogenation of ammonia borane. International Journal of Hydrogen Energy, 2017, 42, 22318-22324.	3.8	14
31	The influence of the pore structure of hollow silicaâ€"alumina composite spheres on their activity for hydrolytic dehydrogenation of ammonia borane. Inorganic Chemistry Frontiers, 2017, 4, 1568-1574.	3.0	14
32	Catalyst Development for Methanol Synthesis Using Parallel Reactors for High-throughput Screening Based on a 96 Well Microplate System. Journal of the Japan Petroleum Institute, 2003, 46, 328-334.	0.4	14
33	Optimization of Cu-Zn-Al Oxide Catalyst for Methanol Synthesis Using Genetic Algorithm.. Sekiyu Gakkaishi (Journal of the Japan Petroleum Institute), 2001, 44, 327-331.	0.1	14
34	Design of Cu-Zn-Al-Sc Oxide Catalyst for Methanol Synthesis Using Genetic Algorithm Based on Radial Basis Function Network as the Evaluation Function. Journal of the Japan Petroleum Institute, 2003, 46, 189-195.	0.4	13
35	Fluorescent properties of a green- to red-emitting Eu3+, Tb3+ codoped amorphous calcium silicate phosphor. Journal of Luminescence, 2012, 132, 2648-2652.	1.5	13
36	Optimization of Cu-Zn-Al Oxide Catalyst for Methanol Synthesis Using Genetic Algorithm and Neural Network as Its Evaluation Function.. Journal of the Japan Petroleum Institute, 2002, 45, 192-195.	0.4	13

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37	In situ synthesized spherical nickelâ€“silica composite particles for hydrolytic dehydrogenation of ammonia borane. Journal of Alloys and Compounds, 2013, 580, S313-S316.	2.8	12
38	Control of Particle Size of Hollow Silica-alumina Composite Spheres and Their Activity for Hydrolytic Dehydrogenation of Ammonia Borane. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2014, 93, 511-516.	0.2	12
39	Fabrication of hollow silicaâ€“zirconia composite spheres and their activity for hydrolytic dehydrogenation of ammonia borane. Journal of Alloys and Compounds, 2014, 608, 261-265.	2.8	12
40	Influence of Si/Al molar ratio of hollow silicaâ€“alumina composite spheres on their activity for hydrolytic dehydrogenation of ammonia borane. International Journal of Hydrogen Energy, 2015, 40, 6151-6157.	3.8	12
41	Preparation of hollow mesoporous silica spheres with immobilized silicomolybdic acid and their catalytic activity for the hydrolytic dehydrogenation of ammonia borane. Microporous and Mesoporous Materials, 2016, 223, 152-156.	2.2	12
42	Application of Genetic Algorithm to Optimize the Composition of Cu-Zn-Al-Sc Oxide Catalyst for Methanol Synthesis. Journal of the Japan Petroleum Institute, 2003, 46, 181-188.	0.4	12
43	Effect of Oxide Coating on Performance of Copper-Zinc Oxide-Based Catalyst for Methanol Synthesis via Hydrogenation of Carbon Dioxide. Materials, 2015, 8, 7738-7744.	1.3	11
44	Fabrication of hollow silicaâ€“nickel particles for the hydrolytic dehydrogenation of ammonia borane using rape pollen templates. New Journal of Chemistry, 2017, 41, 992-996.	1.4	11
45	Optimization of Cu-based Oxide Catalyst for Methanol Synthesis Using a Neural Network Trained by Design of Experiment. Journal of the Japan Petroleum Institute, 2003, 46, 387-391.	0.4	10
46	Control of pore size in shell of hollow silicaâ€“alumina composite spheres for hydrolytic dehydrogenation of ammonia borane. Journal of Porous Materials, 2019, 26, 611-617.	1.3	9
47	Hydrogen Production via Steam Reforming of Ethyl Alcohol over Palladium/Indium Oxide Catalyst. Research Letters in Physical Chemistry, 2009, 2009, 1-4.	0.3	8
48	Screening Using Artificial Neural Network of Additives for Cu-Zn Oxide Catalyst for Methanol Synthesis from Syngas. Journal of the Japan Petroleum Institute, 2005, 48, 145-149.	0.4	7
49	Influence of preparation conditions of hollow titaniaâ€“nickel composite spheres on their catalytic activity for hydrolytic dehydrogenation of ammonia borane. Materials Research Bulletin, 2014, 52, 117-121.	2.7	7
50	Influence of alcohol solvents on morphology of hollow silicaâ€“alumina composite spheres and their activity for hydrolytic dehydrogenation of ammonia borane. Journal of Sol-Gel Science and Technology, 2017, 82, 92-100.	1.1	7
51	Influence of morphology of hollow silicaâ€“alumina composite spheres on their activity for hydrolytic dehydrogenation of ammonia borane. Journal of Advanced Ceramics, 2017, 6, 368-375.	8.9	6
52	Fabrication of copper supported on hollow silicaâ€“alumina composite spheres for catalytic decomposition of nitrous oxide. Journal of Sol-Gel Science and Technology, 2019, 92, 715-722.	1.1	6
53	Optimization of Cu-based Oxide Catalyst for Methanol Synthesis by the Activity Map Envelope Derived from a Neural Network. Journal of the Japan Petroleum Institute, 2003, 46, 383-386.	0.4	6
54	Production of Synthesis Gas by Catalytic Partial Oxidation of Tar Derived from Pyrolysis of Spent Malt. Journal of the Japan Petroleum Institute, 2005, 48, 162-172.	0.4	6

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55	Control of Shell Thickness of Hollow Silica-Alumina Composite Spheres and their Activity for Hydrolytic Dehydrogenation of Ammonia Borane. Key Engineering Materials, 2014, 617, 166-169.	0.4	5
56	Influence of the Water/Titanium Alkoxide Ratio on the Morphology and Catalytic Activity of Titaniaâ€“Nickel Composite Particles for the Hydrolysis of Ammonia Borane. ChemistryOpen, 2018, 7, 611-616.	0.9	5
57	Influence of swelling agents on pore size distributions of porous silica-alumina hollow sphere particles in acid-promoted hydrolytic generation of hydrogen from ammonia borane. International Journal of Hydrogen Energy, 2020, 45, 19531-19538.	3.8	5
58	Response to â€œSha's Comment on Our Article Titled â€˜Optimization of the Temperature Profile of a Temperature Gradient Reactor for DME Synthesis Using a Simple Genetic Algorithm Assisted by a Neural Network'â€• Energy & Fuels, 2007, 21, 381-382.	2.5	4
59	Influence of preparation conditions on morphology of in-situ synthesized hollow ruthenium-silica composite spheres for hydrolytic dehydrogenation of ammonia borane. Journal of Sol-Gel Science and Technology, 2017, 81, 711-716.	1.1	4
60	Fabrication of Spherical Silica Particles from Sodium Silicate and Their Application as Support Materials for Ruthenium-based Catalysts for the Hydrogenation of Supercritical Carbon Dioxide into Formic Acid. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2017, 96, 332-338.	0.2	4
61	Control of aragonite formation and its crystal shape in CaCl2-Na2CO3-H2O reaction system. Journal of Crystal Growth, 2021, 559, 125964.	0.7	4
62	Influence of Preparation Conditions on the Morphology and Catalytic Activity of Hollow Spheres of Copper-Cerium Composite Oxide for Oxidation of Carbon Monoxide. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2014, 93, 1244-1250.	0.2	4
63	Influence of Preparation Conditions on Morphology of in-situ Synthesized Hollow Nickel-silica Spheres for Hydrolytic Dehydrogenation of Ammonia Borane. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2014, 93, 323-327.	0.2	4
64	Effect Of Silica Coating On Performance Of Copper-zinc Oxide Based Catalyst For Methanol Synthesis. Advanced Materials Letters, 2015, 6, 1026-1030.	0.3	4
65	Influence Of Hollow Silica-Alumina Composite Spheres Prepared Using Various Amount Of L(+)-Arginine On Their Activity For Hydrolytic Dehydrogenation Of Ammonia Borane. Advanced Materials Letters, 2016, 7, 339-343.	0.3	4
66	Fabrication of copper supported porous silicaâ€“alumina hollow spheres for catalytic decomposition of nitrous oxide. New Journal of Chemistry, 2022, 46, 11166-11173.	1.4	4
67	Immobilized molybdic acid on porous silica-alumina hollow sphere particles for acid-promoted hydrolytic hydrogen evolution from ammonia borane. International Journal of Hydrogen Energy, 2021, 46, 6659-6668.	3.8	3
68	Influence of Pore Structure of Silica Coated on Copper-Zinc Oxide-Based Catalyst for Carbon Dioxide into Methanol. Topics in Catalysis, 2021, 64, 576-581.	1.3	3
69	60 Simple GA program developed for optimization of methanol and dimethyl ether synthesis. Studies in Surface Science and Catalysis, 2003, 145, 291-294.	1.5	2
70	Influence of pH on immobilization of molybdosilicic acid on hollow silica spheres and promotion of hydrolytic dehydrogenation of ammonia borane. Transactions of the Materials Research Society of Japan, 2015, 40, 179-182.	0.2	2
71	Synthesis of mesoporous silicaâ€“zirconia composite hollow spheres with enhanced activity toward hydrolysis of ammonia borane. Microporous and Mesoporous Materials, 2020, 294, 109839.	2.2	2
72	Catalytic Properties of Palladium Nanoparticles for Hydrogenation of Carbon Dioxide into Formic Acid. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2017, 96, 487-492.	0.2	2

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73	Fabrication of Hollow Spheres of Copper-Cerium Composite Oxide for Catalytic Decomposition of Nitrous Oxide. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2020, 99, 52-56.	0.2	2
74	Artificial Neural Network-Aided Catalyst Research for Low-Pressure DME Synthesis from Syngas. ACS Symposium Series, 2007, , 211-224.	0.5	1
75	Decontamination of Radioactive Cesium from Sea Sludge Using Microbial Activity. Key Engineering Materials, 2014, 617, 117-120.	0.4	1
76	Fabrication of Hollow Silica-Alumina Composite Spheres Using L(+)-Arginine and their Catalytic Performance for Hydrolytic Dehydrogenation of Ammonia Borane. Key Engineering Materials, 2014, 617, 170-173.	0.4	1
77	Effect of Solvents on Morphology of Hollow Nickel-Silica Composite Spheres and Their Catalytic Performance for Hydrolytic Dehydrogenation of Ammonia Borane. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2014, 93, 703-709.	0.2	1
78	Design of Low Cost Pipe Fitting Device for High-throughput Screening Reactor for Screening of Methanol Synthesis Catalyst. Journal of the Japan Petroleum Institute, 2004, 47, 218-221.	0.4	1
79	SYNTHESIS OF ULTRAFINE HYDROXYAPATITE IN A Ca(OH)2-H3PO4-H2O REACTION SYSTEM USING ULTRASOUND IRRADIATION. Phosphorus Research Bulletin, 2019, 35, 42-47.	0.1	1
80	The porous composite BN@SHS made of boron nitride, silica hollow spheres and Siâ€"Oâ€"B interface. Journal of Porous Materials, 2022, 29, 651-662.	1.3	1
81	Combinatorial Catalysis for Hydrogen Production from Ethanol. Materials Research Society Symposia Proceedings, 2005, 894, 1.	0.1	0
82	Development of Advanced Reforming System for H2 Station Using CO Converter Equipped with CO2 Selective Membrane II. ECS Transactions, 2009, 17, 589-598.	0.3	0
83	Effect of RE³⁺ Codopant on Afterglow Time of SrS:Eu²⁺,RE³⁺. Key Engineering Materials, 2014, 617, 131-134.	0.4	0
84	Preparation of Spherical Molybdosilicic Acid-silica Composite Particles for Acid Promoted Hydrolytic Dehydrogenation of Ammonia Borane. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2018, 97, 240-244.	0.2	0
85	Role of Interparticle Space in Hollow Spheres of Silica-Based Solid Acids on Their Acidic Properties and Activity for Hydrolytic Dehydrogenation of Ammonia Borane. , 0, , .		0
86	Fabrication of porous nickelâ€"silica composite particles through catalytic hydrogen evolution reaction from aqueous ammonia borane solution. Functional Materials Letters, 2018, 11, 1850078.	0.7	0
87	The Coordination Structure and Activity of Hollow Silica-alumina Composite Spheres for Hydrogen Evolution from Aqueous Ammonia Borane Solution. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2019, 98, 312-317.	0.2	0
88	Influence of Nitrilotriacetic Acid (NTA) Addition on the Activity of Spherical Silica-nickel Particles for Hydrolytic Dehydrogenation of Ammonia Borane. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2018, 97, 330-335.	0.2	0
89	Synthesis of colored calcium carbonate and its color. Journal of the Ceramic Society of Japan, 2022, 130, 94-99.	0.5	0
90	Influence of the Pore Structure of Molybdic Acid Immobilized Silica-alumina Hollow Spheres on Acid-promoted Hydrogen Evolution from Ammonia Borane. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2022, 101, 76-82.	0.2	0