Kohei Kusada

List of Publications by Year
in descending order

70 papers	2,649 citations	236925 25 h-index	189892 50 g-index
76 all docs	76 docs citations	76 times ranked	2596 citing authors

#	Article	IF	Citations
1	Discovery of Face-Centered-Cubic Ruthenium Nanoparticles: Facile Size-Controlled Synthesis Using the Chemical Reduction Method. Journal of the American Chemical Society, 2013, 135, 5493-5496.	13.7	290
2	Solid Solution Alloy Nanoparticles of Immiscible Pd and Ru Elements Neighboring on Rh: Changeover of the Thermodynamic Behavior for Hydrogen Storage and Enhanced CO-Oxidizing Ability. Journal of the American Chemical Society, 2014, 136, 1864-1871.	13.7	229
3	Platinum-Group-Metal High-Entropy-Alloy Nanoparticles. Journal of the American Chemical Society, 2020, 142, 13833-13838.	13.7	223
4	On the electronic structure and hydrogen evolution reaction activity of platinum group metal-based high-entropy-alloy nanoparticles. Chemical Science, 2020, 11, 12731-12736.	7.4	142
5	Efficient overall water splitting in acid with anisotropic metal nanosheets. Nature Communications, 2021, 12, 1145.	12.8	124
6	Hydrogen-Storage Properties of Solid-Solution Alloys of Immiscible Neighboring Elements with Pd. Journal of the American Chemical Society, 2010, 132, 15896-15898.	13.7	112
7	Creation of Novel Solid-Solution Alloy Nanoparticles on the Basis of Density-of-States Engineering by Interelement Fusion. Accounts of Chemical Research, 2015, 48, 1551-1559.	15.6	107
8	Significant Enhancement of Hydrogen Evolution Reaction Activity by Negatively Charged Pt through Light Doping of W. Journal of the American Chemical Society, 2020, 142, 17250-17254.	13.7	103
9	Noble-Metal High-Entropy-Alloy Nanoparticles: Atomic-Level Insight into the Electronic Structure. Journal of the American Chemical Society, 2022, 144, 3365-3369.	13.7	94
10	Selective control of fcc and hcp crystal structures in Auâ€“Ru solid-solution alloy nanoparticles. Nature Communications, 2018, 9, 510.	12.8	90
11	Solidâ€Solution Alloy Nanoparticles of the Immiscible Iridiumâ€“Copper System with a Wide Composition Range for Enhanced Electrocatalytic Applications. Angewandte Chemie - International Edition, 2018, 57, 4505-4509.	13.8	86
12	Hydrogen in Palladium and Storage Properties of Related Nanomaterials: Size, Shape, Alloying, and Metalâ€Organic Framework Coating Effects. ChemPhysChem, 2019, 20, 1158-1176.	2.1	80
13	A Route for Phase Control in Metal Nanoparticles: A Potential Strategy to Create Advanced Materials. Advanced Materials, 2016, 28, 1129-1142.	21.0	72
14	Hybrid materials of Ni NP@MOF prepared by a simple synthetic method. Chemical Communications, 2015, 51, 12463-12466.	4.1	70
15	Continuous-Flow Reactor Synthesis for Homogeneous 1 nm-Sized Extremely Small High-Entropy Alloy Nanoparticles. Journal of the American Chemical Society, 2022, 144, 11525-11529.	13.7	60
16	Size dependence of structural parameters in fcc and hcp Ru nanoparticles, revealed by Rietveld refinement analysis of high-energy X-ray diffraction data. Scientific Reports, 2016, 6, 31400.	3.3	50
17	Emergence of high ORR activity through controlling local density-of-states by alloying immiscible Au and Ir. Chemical Science, 2019, 10, 652-656.	7.4	50
18	Recent progress in the structure control of Pdâ€“Ru bimetallic nanomaterials. Science and Technology of Advanced Materials, 2016, 17, 583-596.	6.1	49

#	Article	IF	Citations
19	Solid-solution alloy nanoparticles of a combination of immiscible Au and Ru with a large gap of reduction potential and their enhanced oxygen evolution reaction performance. Chemical Science, 2019, 10, 5133-5137.	7.4	48
20	A Synthetic Pseudo-Rh: NOx Reduction Activity and Electronic Structure of Pdâ€“Ru Solid-solution Alloy Nanoparticles. Scientific Reports, 2016, 6, 28265.	3.3	44
21	New Aspects of Platinum Group Metalâ€Based Solidâ€Solution Alloy Nanoparticles: Binary to Highâ€Entropy Alloys. Chemistry - A European Journal, 2020, 26, 5105-5130.	3.3	41
22	Crystal Structure Control of Binary and Ternary Solid-Solution Alloy Nanoparticles with a Face-Centered Cubic or Hexagonal Close-Packed Phase. Journal of the American Chemical Society, 2022, 144, 4224-4232.	13.7	40
23	Origin of the catalytic activity of face-centered-cubic ruthenium nanoparticles determined from an atomic-scale structure. Physical Chemistry Chemical Physics, 2016, 18, 30622-30629.	2.8	39
24	The valence band structure of AgxRh1â€“x alloy nanoparticles. Applied Physics Letters, 2014, 105, .	3.3	27
25	Firstâ€Principles Calculation, Synthesis, and Catalytic Properties of Rhâ€Cu Alloy Nanoparticles. Chemistry - A European Journal, 2017, 23, 57-60.	3.3	26
26	Dual Lewis Acidic/Basic Pd_{0.5}Ru_{0.5}â€“Poly(<i>N</i>â€vinylâ€2â€pyrrolidone) Alloyed Nanoparticle: Outstanding Catalytic Activity and Selectivity in Suzukiâ€“Miyaura Crossâ€Coupling Reaction. ChemCatChem, 2015, 7, 3887-3894.	3.7	25
27	Synthesis of Mo and Ru solid-solution alloy NPs and their hydrogen evolution reaction activity. Chemical Communications, 2020, 56, 14475-14478.	4.1	23
28	Highly Stable and Active Solidâ€Solutionâ€Alloy Threeâ€Way Catalyst by Utilizing Configurationalâ€Entropy Effect. Advanced Materials, 2021, 33, e2005206.	21.0	22
29	Discovery of face-centred cubic Os nanoparticles. Chemical Communications, 2020, 56, 372-374.	4.1	20
30	Nonequilibrium Flow-Synthesis of Solid-Solution Alloy Nanoparticles: From Immiscible Binary to High-Entropy Alloys. Journal of Physical Chemistry C, 2021, 125, 458-463.	3.1	18
31	Boosting reverse water-gas shift reaction activity of Pt nanoparticles through light doping of W. Journal of Materials Chemistry A, 2021, 9, 15613-15617.	10.3	17
32	Continuous-flow syntheses of alloy nanoparticles. Materials Horizons, 2022, 9, 547-558.	12.2	17
33	Facile Synthesis of Size-controlled Rh Nanoparticles via Microwave-assisted Alcohol Reduction and Their Catalysis of CO Oxidation. Chemistry Letters, 2017, 46, 1254-1257.	1.3	16
34	Rational Synthesis for a Noble Metal Carbide. Journal of the American Chemical Society, 2020, 142, 1247-1253.	13.7	15
35	Carbon-supported WO_{<i>x</i>}â€“Ru-based catalysts for the selective hydrogenolysis of glycerol to 1,2-propanediol. Catalysis Science and Technology, 2022, 12, 259-272.	4.1	15
36	Solidâ€Solution Alloy Nanoparticles of the Immiscible Iridiumâ€“Copper System with a Wide Composition Range for Enhanced Electrocatalytic Applications. Angewandte Chemie, 2018, 130, 4595-4599.	2.0	13

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37	Electronic Structure Evolution with Composition Alteration of RhxCuy Alloy Nanoparticles. Scientific Reports, 2017, 7, 41264.	3.3	12
38	Correlation between the electronic/local structure and CO-oxidation activity of Pd_xRu_{1â^'x} alloy nanoparticles. Nanoscale Advances, 2019, 1, 546-553.	4.6	12
39	Size effects on rhodium nanoparticles related to hydrogen-storage capability. Physical Chemistry Chemical Physics, 2018, 20, 15183-15191.	2.8	11
40	Observation of the Formation Processes of Hexagonal Close-packed and Face-centered Cubic Ru Nanoparticles. Chemistry Letters, 2019, 48, 1062-1064.	1.3	11
41	Chemoselective hydrogenation of heteroarenes and arenes by Pdâ€"Ruâ€"PVP under mild conditions. RSC Advances, 2020, 10, 44191-44195.	3.6	11
42	Changeover of the Thermodynamic Behavior for Hydrogen Storage in Rh with Increasing Nanoparticle Size. Chemistry Letters, 2013, 42, 55-56.	1.3	10
43	Phase Control of Noble Monometallic and Alloy Nanomaterials by Chemical Reduction Methods. ChemPlusChem, 2021, 86, 504-519.	2.8	9
44	Stacking fault density and bond orientational order of fcc ruthenium nanoparticles. Applied Physics Letters, 2017, 111, 253101.	3.3	8
45	Crystal Structure-dependent Thermal Stability and Catalytic Performance of AuRu3 Solid-solution Alloy Nanoparticles. Chemistry Letters, 2018, 47, 559-561.	1.3	8
46	Crystalline to amorphous transformation in solid-solution alloy nanoparticles induced by boron doping. Chemical Communications, 2020, 56, 12941-12944.	4.1	8
47	Structural studies of metal nanoparticles using high-energy x-ray diffraction. AIP Conference Proceedings, 2016, , .	0.4	5
48	Investigation of selective chemisorption of fcc and hcp Ru nanoparticles using X-ray photoelectron spectroscopy analysis. Journal of Catalysis, 2019, 380, 247-253.	6.2	5
49	Quantitative Characterization of the Thermally Driven Alloying State in Ternary Irâ€"Pdâ€"Ru Nanoparticles. ACS Nano, 2022, 16, 1612-1624.	14.6	5
50	Compositional dependence of structures and hydrogen evolution reaction activity of platinum-group-metal quinary RuRhPdIrPt alloy nanoparticles. Chemical Communications, 2022, 58, 6421-6424.	4.1	5
51	Ni@onion-like carbon and Co@amorphous carbon: control of carbon structures by metal ion species in MOFs. Chemical Communications, 2021, 57, 5897-5900.	4.1	4
52	Phase Control of Solid-Solution Nanoparticles beyond the Phase Diagram for Enhanced Catalytic Properties. ACS Materials Au, 2022, 2, 110-116.	6.0	4
53	Enhanced Hydrogenation Catalytic Activity of Ruthenium Nanoparticles by Solidâ€Solution Alloying with Molybdenum. European Journal of Inorganic Chemistry, 2021, 2021, 1186-1189.	2.0	3
54	Investigation of Local Structure and Enhanced Thermal Stability of Ir-Doped PdRu Nanoparticles for Three-Way Catalytic Applications. Journal of Physical Chemistry C, 2021, 125, 20583-20591.	3.1	3

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55	Synchrotron-radiation-based MÃ¶ssbauer absorption spectroscopy with high resonant energy nuclides. Hyperfine Interactions, 2019, 240, 1.	0.5	2
56	Statistical Evaluation of the Solid-Solution State in Ternary Nanoalloys. Journal of Physical Chemistry C, 2020, 124, 21843-21852.	3.1	2
57	Investigation of microstructure and hydrogen absorption properties of bulk immiscible AgRh alloy nanoparticles. Journal of Alloys and Compounds, 2021, 869, 159268.	5.5	2
58	Magnetic-Field Dependence of Novel Gap Behavior Related to the Quantum-Size Effect. Journal of the Physical Society of Japan, 2020, 89, 095002.	1.6	2
59	Cuâ€“Pdâ€“B Alloy Nanoparticles Synthesized by External Boron Doping Method. Chemistry Letters, 2021, 50, 611-614.	1.3	1
60	First Observation of Superconductivity in Molybdenumâ€“Rutheniumâ€“Carbon Alloy Nanoparticles. Chemistry Letters, 2021, 50, 596-598.	1.3	1
61	First synthesis of air-stable NiZn homogeneous alloy nanoparticles through chemical reduction. Materials Advances, 2021, 2, 684-687.	5.4	1
62	The Effect of Ru Precursor and Support on the Hydrogenation of Aromatic Aldehydes/Ketones to Alcohols. ChemCatChem, 2022, 14, .	3.7	1
63	Systematic Study of the Hydrogen Storage Properties and the CO-oxidizing Abilities of Solid Solution Alloy Nanoparticles in an Immiscible Pdâ€“Ru System. Springer Theses, 2014, , 29-57.	0.1	0
64	Metal Nanoparticles: A Route for Phase Control in Metal Nanoparticles: A Potential Strategy to Create Advanced Materials (Adv. Mater. 6/2016). Advanced Materials, 2016, 28, 978-978.	21.0	0
65	Frontispiece: New Aspects of Platinum Group Metalâ€Based Solidâ€Solution Alloy Nanoparticles: Binary to Highâ€Entropy Alloys. Chemistry - A European Journal, 2020, 26, .	3.3	0
66	Hydrogen absorption and desorption on Rh nanoparticles revealed by <i>in situ</i> dispersive X-ray absorption fine structure spectroscopy. RSC Advances, 2020, 10, 19751-19758.	3.6	0
67	Quantum Size Effect Probed by NMR Measurements. Creative Economy, 2021, , 215-230.	0.1	0
68	Changeover of the Thermodynamic Behavior for Hydrogen Storage in Rh with Increasing Nanoparticle Size. Springer Theses, 2014, , 69-76.	0.1	0
69	Total x-ray scattering setup for crystalline particles at SPring-8 BL15XU NIMS beamline. Review of Scientific Instruments, 2021, 92, 113905.	1.3	0
70	Enhancing Hydrogen Storage Capacity of Pd Nanoparticles by Sandwiching between Inorganic Nanosheets. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 0, , .	1.2	0