

# Akihiko Hirata

## List of Publications by Year in descending order

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Version: 2024-02-01

166  
papers

15,580  
citations

19657

61  
h-index

16650

123  
g-index

170  
all docs

170  
docs citations

170  
times ranked

18550  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Unveiling a Chemisorbed Crystallographically Heterogeneous Graphene/ $1 \times 1$ -FePd Interface with a Robust and Perpendicular Orbital Moment. <i>ACS Nano</i> , 2022, 16, 4139-4151.   | 14.6 | 10        |
| 2  | Local structure analysis of amorphous materials by angstrom-beam electron diffraction. <i>Microscopy (Oxford, England)</i> , 2021, 70, 171-177.  | 1.5  | 11        |
| 3  | The Characterization of the Oxide Film Formed on Brightly Annealed Al-Added $18\frac{1}{4}\%$ Cr Steel. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2021, , .   | 0.4  | 0         |
| 4  | Vapor phase dealloying kinetics of MnZn alloys. <i>Acta Materialia</i> , 2021, 212, 116916.  | 7.9  | 19        |
| 5  | Crystallization behaviors in superionic conductor Na <sub>3</sub> PS <sub>4</sub> . <i>Journal of Power Sources</i> , 2021, 511, 230444.   | 7.8  | 9         |
| 6  | Topological trends in ionic transport through metal-oxide composites. <i>Applied Physics Letters</i> , 2021, 118, 054102.  | 3.3  | 4         |
| 7  | Relationship between diffraction peak, network topology, and amorphous-forming ability in silicon and silica. <i>Scientific Reports</i> , 2021, 11, 22180.   | 3.3  | 11        |
| 8  | Correlation between the Charge-Transport Properties and the 3D-Phase Connectivities in Patterned Pt/CeO <sub>2</sub> Nanostructured Composites: Implications for Solid-Oxide Fuel Cells. <i>ACS Applied Nano Materials</i> , 2021, 4, 13602-13611. | 5.0  | 1         |
| 9  | Improving glass forming ability of off-eutectic metallic glass formers by manipulating primary crystallization reactions. <i>Acta Materialia</i> , 2020, 200, 710-719.   | 7.9  | 16        |
| 10 | Frank-Kasper Z16 local structures in Cu-Zr metallic glasses. <i>Physical Review B</i> , 2020, 102, .   | 3.2  | 2         |
| 11 | Structural changes during glass formation extracted by computational homology with machine learning. <i>Communications Materials</i> , 2020, 1, .  | 6.9  | 22        |
| 12 | Dealloying Kinetics of AgAu Nanoparticles by <i>In Situ</i> Liquid-Cell Scanning Transmission Electron Microscopy. <i>Nano Letters</i> , 2020, 20, 1944-1951.  | 9.1  | 47        |
| 13 | Structure and properties of densified silica glass: characterizing the order within disorder. <i>NPG Asia Materials</i> , 2020, 12, .  | 7.9  | 57        |
| 14 | Understanding Diffraction from Disordered Materials and the Extraction of Topology Hidden in the Pairwise Correlations by Persistent Homology. <i>Nihon Kessho Gakkaishi</i> , 2020, 62, 43-50.  | 0.0  | 0         |
| 15 | Boson Peak Investigation of Unusually Disproportionated Amorphous Silicon Monoxide via Terahertz Spectroscopy. , 2020, , .   |      | 0         |
| 16 | Effect of Ca Doping on Modulated Structures in Multiferroic Bi <sub>1-x</sub> Ca <sub>x</sub> FeO <sub>3</sub> . <i>Journal of the Physical Society of Japan</i> , 2019, 88, 054601.   | 1.6  | 1         |
| 17 | Operando Observations of SEI Film Evolution by Mass-Sensitive Scanning Transmission Electron Microscopy. <i>Advanced Energy Materials</i> , 2019, 9, 1902675.  | 19.5 | 64        |
| 18 | High-temperature bulk metallic glasses developed by combinatorial methods. <i>Nature</i> , 2019, 569, 99-103.  | 27.8 | 185       |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Temperature-dependent compression behavior of an Al <sub>0.5</sub> CoCrCuFeNi high-entropy alloy. <i>Materialia</i> , 2019, 5, 100243.  | 2.7  | 16        |
| 20 | Effects of mixing enthalpy and cooling rate on phase formation of Al <sub>x</sub> CoCrCuFeNi high-entropy alloys. <i>Materialia</i> , 2019, 6, 100292.  | 2.7  | 40        |
| 21 | Fast coalescence of metallic glass nanoparticles. <i>Nature Communications</i> , 2019, 10, 5249.  | 12.8 | 37        |
| 22 | Time-resolved atomic-scale observations of deformation and fracture of nanoporous gold under tension. <i>Acta Materialia</i> , 2019, 165, 99-108.   | 7.9  | 39        |
| 23 | Free-standing nanoporous gold for direct plasmon enhanced electro-oxidation of alcohol molecules. <i>Nano Energy</i> , 2019, 56, 286-293.   | 16.0 | 48        |
| 24 | Lithium intercalation into bilayer graphene. <i>Nature Communications</i> , 2019, 10, 275.  | 12.8 | 136       |
| 25 | Operando characterization of cathodic reactions in a liquid-state lithium-oxygen micro-battery by scanning transmission electron microscopy. <i>Scientific Reports</i> , 2018, 8, 3134.         | 3.3  | 25        |
| 26 | Three-dimensional bicontinuous nanoporous materials by vapor phase dealloying. <i>Nature Communications</i> , 2018, 9, 276.   | 12.8 | 123       |
| 27 | Synthesizing 1Tâ€™1H Two-Phase Mo <sub>1-x</sub> W <sub>x</sub> S <sub>2</sub> Monolayers by Chemical Vapor Deposition. <i>ACS Nano</i> , 2018, 12, 1571-1579.                                  | 14.6 | 62        |
| 28 | Bilayered nanoporous graphene/molybdenum oxide for high rate lithium ion batteries. <i>Nano Energy</i> , 2018, 45, 273-279.   | 16.0 | 54        |
| 29 | Intercalation pseudocapacitance of amorphous titanium dioxide@nanoporous graphene for high-rate and large-capacity energy storage. <i>Nano Energy</i> , 2018, 49, 354-362.                      | 16.0 | 74        |
| 30 | Operando observations of RuO <sub>2</sub> catalyzed Li <sub>2</sub> O <sub>2</sub> formation and decomposition in a Li-O <sub>2</sub> micro-battery. <i>Nano Energy</i> , 2018, 47, 427-433.    | 16.0 | 47        |
| 31 | Transmission electron microscopy characterization of dislocation structure in a face-centered cubic high-entropy alloy Al <sub>0.1</sub> CoCrFeNi. <i>Acta Materialia</i> , 2018, 144, 107-115. | 7.9  | 187       |
| 32 | 2pA_SS3-7Direct observation and modeling of local atomic structures of amorphous materials. <i>Microscopy (Oxford, England)</i> , 2018, 67, i22-i22.  | 1.5  | 0         |
| 33 | Microstructural origins for a strong and ductile Al <sub>0.1</sub> CoCrFeNi high-entropy alloy with ultrafine grains. <i>Materialia</i> , 2018, 4, 395-405.                                     | 2.7  | 43        |
| 34 | Graphene-based quasi-solid-state lithiumâ€™oxygen batteries with high energy efficiency and a long cycling lifetime. <i>NPG Asia Materials</i> , 2018, 10, 1037-1045.                           | 7.9  | 35        |
| 35 | Crystalline Approximant of Amorphous Fe-Si-B Structures. <i>Materials Transactions</i> , 2018, 59, 1047-1050.   | 1.2  | 5         |
| 36 | Amorphous Structure Analysis of Si Anode for Li Ion Battery. <i>Microscopy and Microanalysis</i> , 2018, 24, 1526-1527.   | 0.4  | 0         |

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|----|--|------|-----------|
| 37 | Spatial heterogeneity as the structure feature for structure–property relationship of metallic glasses. <i>Nature Communications</i> , 2018, 9, 3965.  | 12.8 | 115       |
| 38 | Distortion of Local Atomic Structures in Amorphous Ge-Sb-Te Phase Change Materials. <i>Physical Review Letters</i> , 2018, 120, 205502.  | 7.8  | 35        |
| 39 | Heavily Doped and Highly Conductive Hierarchical Nanoporous Graphene for Electrochemical Hydrogen Production. <i>Angewandte Chemie</i> , 2018, 130, 13486-13491.   | 2.0  | 10        |
| 40 | Heavily Doped and Highly Conductive Hierarchical Nanoporous Graphene for Electrochemical Hydrogen Production. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 13302-13307.  | 13.8 | 64        |
| 41 | Deformation behaviour of 18R long-period stacking ordered structure in an Mg-Zn-Y alloy under shock loading. <i>Intermetallics</i> , 2018, 102, 21-25.   | 3.9  | 3         |
| 42 | Structure of crystallized particles in sputter-deposited amorphous germanium films. <i>Journal of Applied Crystallography</i> , 2018, 51, 1467-1473.   | 4.5  | 7         |
| 43 | Noble–Metal–Free Metallic Glass as a Highly Active and Stable Bifunctional Electrocatalyst for Water Splitting. <i>Advanced Materials Interfaces</i> , 2017, 4, 1601086.   | 3.7  | 60        |
| 44 | Ultrastrong steel via minimal lattice misfit and high-density nanoprecipitation. <i>Nature</i> , 2017, 544, 460-464.   | 27.8 | 843       |
| 45 | Tunable Nanoporous Metallic Glasses Fabricated by Selective Phase Dissolution and Passivation for Ultrafast Hydrogen Uptake. <i>Chemistry of Materials</i> , 2017, 29, 4478-4483.  | 6.7  | 38        |
| 46 | Full Performance Nanoporous Graphene Based $\text{Li}_2\text{O}$ Batteries through Solution Phase Oxygen Reduction and Redox–Additive Mediated $\text{Li}_2\text{O}$ Oxidation. <i>Advanced Energy Materials</i> , 2017, 7, 1601933.                     | 19.5 | 65        |
| 47 | Structure and mechanical properties of boron-rich boron carbides. <i>Journal of the European Ceramic Society</i> , 2017, 37, 4514-4523.  | 5.7  | 89        |
| 48 | Structure and viscosity of phase-separated $\text{BaO}$ – $\text{SiO}_2$ glasses. <i>Journal of the American Ceramic Society</i> , 2017, 100, 1982-1993.   | 3.8  | 20        |
| 49 | Engineering the internal surfaces of three-dimensional nanoporous catalysts by surfactant-modified dealloying. <i>Nature Communications</i> , 2017, 8, 1066.   | 12.8 | 69        |
| 50 | Chemical Selectivity at Grain Boundary Dislocations in Monolayer $\text{Mo}_1\text{W}_1\text{S}_2$ Transition Metal Dichalcogenides. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 29438-29444.   | 8.0  | 10        |
| 51 | Formation and Characterization of Hydrogen Boride Sheets Derived from $\text{MgB}_2$ by Cation Exchange. <i>Journal of the American Chemical Society</i> , 2017, 139, 13761-13769.   | 13.7 | 157       |
| 52 | Direct Observations of the Formation and Redox–Mediator–Assisted Decomposition of $\text{Li}_2\text{O}$ in a Liquid–Cell $\text{Li}_2\text{O}$ Microbattery by Scanning Transmission Electron Microscopy. <i>Advanced Materials</i> , 2017, 29, 1702752. | 21.0 | 41        |
| 53 | Tuning Surface Structure of 3D Nanoporous Gold by Surfactant–Free Electrochemical Potential Cycling. <i>Advanced Materials</i> , 2017, 29, 1703601.  | 21.0 | 54        |
| 54 | Correlation between Local Structure Order and Spatial Heterogeneity in a Metallic Glass. <i>Physical Review Letters</i> , 2017, 119, 215501.   | 7.8  | 116       |

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|----|--|------|-----------|
| 55 | Transparent magnetic semiconductor with embedded metallic glass nano-granules. <i>Materials and Design</i> , 2017, 132, 208-214.   | 7.0  | 16        |
| 56 | Effect of Chemical Doping on Cathodic Performance of Bicontinuous Nanoporous Graphene for $\text{Li}^{\oplus}\text{O}^{\ominus 2}$ Batteries. <i>Advanced Energy Materials</i> , 2016, 6, 1501870. | 19.5 | 132       |
| 57 | Graphene@Nanoporous Nickel Cathode for $\text{Li}^{\oplus}\text{O}^{\ominus 2}$ Batteries. <i>ChemNanoMat</i> , 2016, 2, 176-181.  | 2.8  | 12        |
| 58 | 3D Nanoporous Metal Phosphides toward High Efficiency Electrochemical Hydrogen Production. <i>Advanced Materials</i> , 2016, 28, 2951-2955.  | 21.0 | 163       |
| 59 | Intrinsic correlation between $\hat{\Gamma}^2$ -relaxation and spatial heterogeneity in a metallic glass. <i>Nature Communications</i> , 2016, 7, 11516.   | 12.8 | 197       |
| 60 | Metallic Glasses. <i>SpringerBriefs in the Mathematics of Materials</i> , 2016, , 9-14.  | 0.3  | 0         |
| 61 | Structural Analysis of Metallic Glasses with Computational Homology. <i>SpringerBriefs in the Mathematics of Materials</i> , 2016, , .   | 0.3  | 7         |
| 62 | Versatile nanoporous bimetallic phosphides towards electrochemical water splitting. <i>Energy and Environmental Science</i> , 2016, 9, 2257-2261.  | 30.8 | 535       |
| 63 | Earth Abundant and Durable Nanoporous Catalyst for Exhaust Gas Conversion. <i>Advanced Functional Materials</i> , 2016, 26, 1609-1616.   | 14.9 | 18        |
| 64 | An ultrahigh volumetric capacitance of squeezable three-dimensional bicontinuous nanoporous graphene. <i>Nanoscale</i> , 2016, 8, 18551-18557.   | 5.6  | 13        |
| 65 | Initial Atomic Motion Immediately Following Femtosecond-Laser Excitation in Phase-Change Materials. <i>Physical Review Letters</i> , 2016, 117, 135501.  | 7.8  | 45        |
| 66 | Chemical Vapor Deposition of Monolayer $\text{Mo}1^{\oplus}\text{W}^{\oplus}\text{S}^{\ominus 2}$ Crystals with Tunable Band Gaps. <i>Scientific Reports</i> , 2016, 6, 21536.                     | 3.3  | 101       |
| 67 | Hierarchical nanoporosity enhanced reversible capacity of bicontinuous nanoporous metal based $\text{Li-O}_2$ battery. <i>Scientific Reports</i> , 2016, 6, 33466.                                 | 3.3  | 52        |
| 68 | Unveiling Three-Dimensional Stacking Sequences of 1T Phase $\text{MoS}_2$ Monolayers by Electron Diffraction. <i>ACS Nano</i> , 2016, 10, 10308-10316.   | 14.6 | 21        |
| 69 | Atomic-scale disproportionation in amorphous silicon monoxide. <i>Nature Communications</i> , 2016, 7, 11591.  | 12.8 | 138       |
| 70 | Structure Analysis of Amorphous Materials Using a STEM Electron Diffraction Method. <i>Materia Japan</i> , 2016, 55, 8-14.   | 0.1  | 1         |
| 71 | Hierarchical structures of amorphous solids characterized by persistent homology. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 7035-7040.   | 7.1  | 221       |
| 72 | Visualizing Under- Coordinated Surface Atoms on 3D Nanoporous Gold Catalysts. <i>Advanced Materials</i> , 2016, 28, 1753-1759.   | 21.0 | 85        |

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|----|--|------|-----------|
| 73 | Bicontinuous nanotubular graphene-polypyrrole hybrid for high performance flexible supercapacitors. <i>Nano Energy</i> , 2016, 19, 391-400.  | 16.0 | 137       |
| 74 | Non-aqueous nanoporous gold based supercapacitors with high specific energy. <i>Scripta Materialia</i> , 2016, 116, 76-81.   | 5.2  | 22        |
| 75 | B11-O-06Depth-Resolution Imaging of Crystalline Nano Clusters Using Aberration-Corrected TEM. <i>Microscopy (Oxford, England)</i> , 2015, 64, i13.1-i13.   | 1.5  | 0         |
| 76 | On-Chip Micro-Pseudocapacitors for Ultrahigh Energy and Power Delivery. <i>Advanced Science</i> , 2015, 2, 1500067.  | 11.2 | 66        |
| 77 | Nanoporous Metal Papers for Scalable Hierarchical Electrode. <i>Advanced Science</i> , 2015, 2, 1500086.   | 11.2 | 26        |
| 78 | 3D Nanoporous Nitrogen-Doped Graphene with Encapsulated RuO <sub>2</sub> Nanoparticles for Li-O <sub>2</sub> Batteries. <i>Advanced Materials</i> , 2015, 27, 6137-6143.                                 | 21.0 | 195       |
| 79 | Nanoporous Graphene with Single-Atom Nickel Dopants: An Efficient and Stable Catalyst for Electrochemical Hydrogen Production. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14031-14035. | 13.8 | 628       |
| 80 | Extraordinary Supercapacitor Performance of a Multicomponent and Mixed-Valence Oxyhydroxide. <i>Angewandte Chemie</i> , 2015, 127, 8218-8222.  | 2.0  | 16        |
| 81 | Extraordinary Supercapacitor Performance of a Multicomponent and Mixed-Valence Oxyhydroxide. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 8100-8104.                                     | 13.8 | 50        |
| 82 | Visualization of topological landscape in shear-flow dynamics of amorphous solids. <i>Europhysics Letters</i> , 2015, 110, 38002.  | 2.0  | 2         |
| 83 | Sample size induced brittle-to-ductile transition of single-crystal aluminum nitride. <i>Acta Materialia</i> , 2015, 88, 252-259.  | 7.9  | 38        |
| 84 | Nanoporous metal/oxide hybrid materials for rechargeable lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 3620-3626.   | 10.3 | 45        |
| 85 | Persistent homology and many-body atomic structure for medium-range order in the glass. <i>Nanotechnology</i> , 2015, 26, 304001.  | 2.6  | 73        |
| 86 | Depth-resolution imaging of crystalline nanoclusters attached on and embedded in amorphous films using aberration-corrected TEM. <i>Ultramicroscopy</i> , 2015, 151, 224-231.                            | 1.9  | 13        |
| 87 | A nanoporous metal recuperated MnO <sub>2</sub> anode for lithium ion batteries. <i>Nanoscale</i> , 2015, 7, 15111-15116.  | 5.6  | 58        |
| 88 | Nanoscale phase separation in a fcc-based CoCrCuFeNiAl <sub>0.5</sub> high-entropy alloy. <i>Acta Materialia</i> , 2015, 84, 145-152.  | 7.9  | 193       |
| 89 | Direct Observation of High-Temperature Superconductivity in One-Unit-Cell FeSe Films. <i>Chinese Physics Letters</i> , 2014, 31, 017401.   | 3.3  | 222       |
| 90 | Nanoporous Metal Enhanced Catalytic Activities of Amorphous Molybdenum Sulfide for High-Efficiency Hydrogen Production. <i>Advanced Materials</i> , 2014, 26, 3100-3104.                                 | 21.0 | 204       |

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|-----|---|------|-----------|
| 91  | Three-Dimensional Hierarchical Nanoporosity for Ultrahigh Power and Excellent Cyclability of Electrochemical Pseudocapacitors. <i>Advanced Energy Materials</i> , 2014, 4, 1301809. | 19.5 | 27        |
| 92  | Raman characterization of pseudocapacitive behavior of polypyrrole on nanoporous gold. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 3523.                                 | 2.8  | 56        |
| 93  | Monolayer MoS <sub>2</sub> Films Supported by 3D Nanoporous Metals for High-Efficiency Electrocatalytic Hydrogen Production. <i>Advanced Materials</i> , 2014, 26, 8023-8028.       | 21.0 | 299       |
| 94  | Chemically exfoliated ReS <sub>2</sub> nanosheets. <i>Nanoscale</i> , 2014, 6, 12458-12462.   | 5.6  | 160       |
| 95  | Asymmetric metal oxide pseudocapacitors advanced by three-dimensional nanoporous metal electrodes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 8448.                         | 10.3 | 74        |
| 96  | Grain rotation mediated by grain boundary dislocations in nanocrystalline platinum. <i>Nature Communications</i> , 2014, 5, 4402.   | 12.8 | 286       |
| 97  | Self-Grown Oxy-Hydroxide@ Nanoporous Metal Electrode for High-Performance Supercapacitors. <i>Advanced Materials</i> , 2014, 26, 269-272.   | 21.0 | 152       |
| 98  | Asymmetric twins in rhombohedral boron carbide. <i>Applied Physics Letters</i> , 2014, 104, 021907.   | 3.3  | 32        |
| 99  | Atomic Observation of Catalysis-Induced Nanopore Coarsening of Nanoporous Gold. <i>Nano Letters</i> , 2014, 14, 1172-1177.  | 9.1  | 109       |
| 100 | Fabrication of large-scale nanoporous nickel with a tunable pore size for energy storage. <i>Journal of Power Sources</i> , 2014, 247, 896-905.                                     | 7.8  | 140       |
| 101 | Angstrom-beam electron diffraction of amorphous materials. <i>Journal of Non-Crystalline Solids</i> , 2014, 383, 52-58.   | 3.1  | 15        |
| 102 | High-energy-density nonaqueous MnO <sub>2</sub> @nanoporous gold based supercapacitors. <i>Journal of Materials Chemistry A</i> , 2013, 1, 9202.                                    | 10.3 | 84        |
| 103 | Geometric Frustration of Icosahedron in Metallic Glasses. <i>Science</i> , 2013, 341, 376-379.  | 12.6 | 423       |
| 104 | A Core-Shell Nanoporous Pt-Cu Catalyst with Tunable Composition and High Catalytic Activity. <i>Advanced Functional Materials</i> , 2013, 23, 4156-4162.                            | 14.9 | 118       |
| 105 | In situ atomic-scale observation of continuous and reversible lattice deformation beyond the elastic limit. <i>Nature Communications</i> , 2013, 4, 2413.                           | 12.8 | 147       |
| 106 | Synergistic alloying effect on microstructural evolution and mechanical properties of Cu precipitation-strengthened ferritic alloys. <i>Acta Materialia</i> , 2013, 61, 7726-7740.  | 7.9  | 85        |
| 107 | Microstructure characterization of Cu-rich nanoprecipitates in a Fe-2.5 Cu-1.5 Mn-4.0 Ni-1.0 Al multicomponent ferritic alloy. <i>Acta Materialia</i> , 2013, 61, 2133-2147.        | 7.9  | 153       |
| 108 | Nanoporous Gold Based Optical Sensor for Sub-ppt Detection of Mercury Ions. <i>ACS Nano</i> , 2013, 7, 4595-4600.   | 14.6 | 175       |

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|-----|---|------|-----------|
| 109 | Enhanced Supercapacitor Performance of MnO <sub>2</sub> by Atomic Doping. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 1664-1667.   | 13.8 | 251       |
| 110 | Electroplated Thick Manganese Oxide Films with Ultrahigh Capacitance. <i>Advanced Energy Materials</i> , 2013, 3, 857-863.  | 19.5 | 70        |
| 111 | Geometrically Controlled Nanoporous PdAu Bimetallic Catalysts with Tunable Pd/Au Ratio for Direct Ethanol Fuel Cells. <i>ACS Catalysis</i> , 2013, 3, 1220-1230.  | 11.2 | 152       |
| 112 | A nanoscale co-precipitation approach for property enhancement of Fe-base alloys. <i>Scientific Reports</i> , 2013, 3, 1327.  | 3.3  | 79        |
| 113 | Fabrication of Nickel/Organic-Molecule/Nickel Nanoscale Junctions Utilizing Thin-Film Edges and Their Structural and Electrical Properties. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 065202.                              | 1.5  | 1         |
| 114 | Atomic origins of the high catalytic activity of nanoporous gold. <i>Nature Materials</i> , 2012, 11, 775-780.  | 27.5 | 803       |
| 115 | Deposition of multicomponent metallic glass films by single-target magnetron sputtering. <i>Intermetallics</i> , 2012, 21, 105-114.   | 3.9  | 52        |
| 116 | Characterization of oxide nanoprecipitates in an oxide dispersion strengthened 14YWT steel using aberration-corrected STEM. <i>Acta Materialia</i> , 2012, 60, 5686-5696.   | 7.9  | 65        |
| 117 | Direct synthesis of fullerene-intercalated porous carbon nanofibers by chemical vapor deposition. <i>Carbon</i> , 2012, 50, 5162-5166.  | 10.3 | 12        |
| 118 | Structural Origins of the Excellent Glass Forming Ability of $Pd_{40}Ni_{20}P_{20}$ . <i>Physical Review Letters</i> , 2012, 108, 175501.   | 7.8  | 115       |
| 119 | Innovative processing of high-strength and low-cost ferritic steels strengthened by TiO nanoclusters. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 544, 59-69. | 5.6  | 27        |
| 120 | Electron diffraction study on chemical short-range order in covalent amorphous solids. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2012, 277, 70-76.   | 1.4  | 3         |
| 121 | Wrinkled Nanoporous Gold Films with Ultrahigh Surface-Enhanced Raman Scattering Enhancement. <i>ACS Nano</i> , 2011, 5, 4407-4413.  | 14.6 | 249       |
| 122 | Atomic structure of nanoclusters in oxide-dispersion-strengthened steels. <i>Nature Materials</i> , 2011, 10, 922-926.  | 27.5 | 306       |
| 123 | Effect of Residual Silver on Surface-Enhanced Raman Scattering of Dealloyed Nanoporous Gold. <i>Journal of Physical Chemistry C</i> , 2011, 115, 19583-19587.   | 3.1  | 66        |
| 124 | Characterization of Nanoscale Mechanical Heterogeneity in a Metallic Glass by Dynamic Force Microscopy. <i>Physical Review Letters</i> , 2011, 106, 125504.   | 7.8  | 347       |
| 125 | Local Structure Analysis of Metallic Glasses by Angstrom Beam Electron Diffraction Using Aberration Corrected STEM. <i>Nihon Kessho Gakkaishi</i> , 2011, 53, 326-331.  | 0.0  | 0         |
| 126 | Direct observation of local atomic order in a metallic glass. <i>Nature Materials</i> , 2011, 10, 28-33.  | 27.5 | 483       |

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|-----|---|------|-----------|
| 127 | Nanoporous metal/oxide hybrid electrodes for electrochemical supercapacitors. Nature Nanotechnology, 2011, 6, 232-236.  | 31.5 | 1,914     |
| 128 | Nanoporous PdNi Bimetallic Catalyst with Enhanced Electrocatalytic Performances for Electro-oxidation and Oxygen Reduction Reactions. Advanced Functional Materials, 2011, 21, 4364-4370.   | 14.9 | 251       |
| 129 | Modulated Na <sub>2</sub> Ti <sub>4</sub> O <sub>9</sub> :Zr Nanobelt via Site-Specific Zr Doping. Applied Physics Express, 2011, 4, 085003.  | 2.4  | 3         |
| 130 | Surface and Interface Structures and Magnetic Properties of Ni and Ni <sub>75</sub> Fe <sub>25</sub> Thin Films on Polyethylene Naphthalate Organic Substrates. Journal of the Vacuum Society of Japan, 2011, 54, 203-206.  | 0.3  | 0         |
| 131 | Fabrication and Current-Voltage Characteristics of Ni Spin Quantum Cross Devices with P3HT:PCBM Organic Materials. Materials Research Society Symposia Proceedings, 2010, 1252, 8.  | 0.1  | 0         |
| 132 | Structure Analyses of Fe-based Metallic Glasses by Electron Diffraction. Materials, 2010, 3, 5263-5273.   | 2.9  | 14        |
| 133 | The fabrication of Ni quantum cross devices with a 17 nm junction and their current-voltage characteristics. Nanotechnology, 2010, 21, 015301.  | 2.6  | 4         |
| 134 | Quasicrystal-like structure and its crystalline approximant in an Fe <sub>48</sub> Cr <sub>15</sub> Mo <sub>14</sub> C <sub>15</sub> B <sub>6</sub> Tm <sub>2</sub> bulk metallic glass. Journal of Alloys and Compounds, 2010, 504, S186-S189.   | 5.5  | 12        |
| 135 | Nanoscale metastable state exhibiting pseudotenfold diffraction pattern in Fe-based bulk metallic glass. Physical Review B, 2009, 79, .   | 3.2  | 11        |
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