Takeshi Kasama

List of Publications by Year
in descending order

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119 papers	5,497 citations	87888 38 h-index	88630 70 g-index
119 all docs	119 docs citations	119 times ranked	8250 citing authors

#	Article	IF	Citations
1	Large-Scale Synthesis of Single-Crystalline Iron Oxide Magnetic Nanorings. Journal of the American Chemical Society, 2008, 130, 16968-16977.	13.7	438
2	Multifunctional Roles for Serum Protein Fetuin-A in Inhibition of Human Vascular Smooth Muscle Cell Calcification. Journal of the American Society of Nephrology: JASN, 2005, 16, 2920-2930.	6.1	326
3	A high-mobility two-dimensional electron gas at the spinel/perovskite interface of Î³-Al2O3/SrTiO3. Nature Communications, 2013, 4, 1371.	12.8	285
4	Ledge-flow-controlled catalyst interface dynamics during Si nanowire growth. Nature Materials, 2008, 7, 372-375.	27.5	248
5	Domain Size Effect on Dielectric Properties of Barium Titanate Ceramics. Japanese Journal of Applied Physics, 2008, 47, 7607.	1.5	190
6	Direct observation of heavy metal-mineral association from the Clark Fork River Superfund Complex: Implications for metal transport and bioavailability. Geochimica Et Cosmochimica Acta, 2005, 69, 1651-1663.	3.9	169
7	Enhancement of the chemical stability in confinedÂÎ´-Bi2O3. Nature Materials, 2015, 14, 500-504.	27.5	148
8	Three-Dimensional Tomographic Imaging and Characterization of Iron Compounds within Alzheimer's Plaque Core Material. Journal of Alzheimer's Disease, 2008, 14, 235-245.	2.6	136
9	Solar nebula magnetic fields recorded in the Semarkona meteorite. Science, 2014, 346, 1089-1092.	12.6	130
10	Direct observation of domain-wall pinning at nanoscale constrictions. Applied Physics Letters, 2005, 87, 102509.	3.3	127
11	The cation diffusion facilitator proteins MamB and MamM of Magnetospirillum gryphiswaldense have distinct and complex functions, and are involved in magnetite biomineralization and magnetosome membrane assembly. Molecular Microbiology, 2011, 82, 818-835.	2.5	125
12	Dipolar Magnetism in Ordered and Disordered Low-Dimensional Nanoparticle Assemblies. Scientific Reports, 2013, 3, 1234.	3.3	120
13	Off-axis electron holography of magnetic nanowires and chains, rings, and planar arrays of magnetic nanoparticles. Microscopy Research and Technique, 2004, 64, 390-402.	2.2	106
14	Environmentally important, poorly crystalline Fe/Mn hydrous oxides: Ferrihydrite and a possibly new vernadite-like mineral from the Clark Fork River Superfund Complex. American Mineralogist, 2005, 90, 718-724.	1.9	101
15	The effect of microorganisms on Fe precipitation rates at neutral pH. Chemical Geology, 2001, 180, 117-128.	3.3	90
16	Creation of High Mobility Two-Dimensional Electron Gases via Strain Induced Polarization at an Otherwise Nonpolar Complex Oxide Interface. Nano Letters, 2015, 15, 1849-1854.	9.1	89
17	Nonadiabatic Spin Torque Investigated Using Thermally Activated Magnetic Domain Wall Dynamics. Physical Review Letters, 2010, 105, 056601.	7.8	86
18	Oxidation of Bioethanol using Zeoliteâ€Encapsulated Gold Nanoparticles. Angewandte Chemie - International Edition, 2014, 53, 12513-12516.	13.8	80

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19	A Polyphenylene Support for Pd Catalysts with Exceptional Catalytic Activity. Angewandte Chemie - International Edition, 2014, 53, 8645-8648.	13.8	72
20	Visualized effect of oxidation on magnetic recording fidelity in pseudo-single-domain magnetite particles. Nature Communications, 2014, 5, 5154.	12.8	71
21	Long-lived magnetism from solidification-driven convection on the pallasite parent body. Nature, 2015, 517, 472-475.	27.8	68
22	Room Temperature Formation of Highâ€Mobility Twoâ€Dimensional Electron Gases at Crystalline Complex Oxide Interfaces. Advanced Materials, 2014, 26, 1462-1467.	21.0	65
23	Magnetic properties, microstructure, composition, and morphology of greigite nanocrystals in magnetotactic bacteria from electron holography and tomography. American Mineralogist, 2006, 91, 1216-1229.	1.9	64
24	Interactions of uranium with bacteria and kaolinite clay. Chemical Geology, 2005, 220, 237-243.	3.3	61
25	Electron Holography for the Study of Magnetic Nanomaterials. Accounts of Chemical Research, 2008, 41, 665-674.	15.6	61
26	Magnetic induction mapping of magnetite chains in magnetotactic bacteria at room temperature and close to the Verwey transition using electron holography. Journal of Physics: Conference Series, 2005, 17, 108-121.	0.4	57
27	Spin torque and heating effects in current-induced domain wall motion probed by transmission electron microscopy. Applied Physics Letters, 2007, 90, 132506.	3.3	57
28	Effects of internal mineral structures on the magnetic remanence of silicate-hosted titanomagnetite inclusions: An electron holography study. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	50
29	Direct observation of ferrimagnetic/ferroelastic domain interactions in magnetite below the Verwey transition. Earth and Planetary Science Letters, 2010, 297, 10-17.	4.4	48
30	Uranium Biosorption by the LichenTrapelia involutaat a Uranium Mine. Geomicrobiology Journal, 2004, 21, 159-167.	2.0	44
31	Iron oxidation state of a 2.45-Byr-old paleosol developed on mafic volcanics. Geochimica Et Cosmochimica Acta, 2003, 67, 213-221.	3.9	42
32	Self-assembly and flux closure studies of magnetic nanoparticle rings. Journal of Materials Chemistry, 2011, 21, 16686.	6.7	42
33	Origin of Spontaneous Coreâ€“Shell AlGaAs Nanowires Grown by Molecular Beam Epitaxy. Crystal Growth and Design, 2016, 16, 7251-7255.	3.0	42
34	Nano-mineralogy and -geochemistry of high-grade diasporic karst-type bauxite from Parnassos-Ghiona mines, Greece. Ore Geology Reviews, 2017, 84, 228-244.	2.7	42
35	Environmental TEM Study of Electron Beam Induced Electrochemistry of Pr_{0.64}Ca_{0.36}MnO₃ Catalysts for Oxygen Evolution. Journal of Physical Chemistry C, 2015, 119, 5301-5310.	3.1	41
36	Anoxic dissolution processes of biotite: implications for Fe behavior during Archean weathering. Earth and Planetary Science Letters, 2004, 224, 117-129.	4.4	39

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37	Effects of nanoscale exsolution in hematiteâ€“ilmenite on the acquisition of stable natural remanent magnetization. Earth and Planetary Science Letters, 2004, 224, 461-475.	4.4	39
38	Conventional and back-side focused ion beam milling for off-axis electron holography of electrostatic potentials in transistors. Ultramicroscopy, 2005, 103, 67-81.	1.9	39
39	Quantitative determination of domain wall coupling energetics. Applied Physics Letters, 2006, 88, 212510.	3.3	39
40	Transverse domain walls in nanoconstrictions. Applied Physics Letters, 2007, 91, 112502.	3.3	39
41	Magnetic fluctuations in nanosized goethite (Î±-FeOOH) grains. Journal of Physics Condensed Matter, 2009, 21, 016007.	1.8	39
42	Nanomagnetic intergrowths in Feâ€“Ni meteoritic metal: The potential for time-resolved records of planetesimal dynamo fields. Earth and Planetary Science Letters, 2014, 388, 237-248.	4.4	38
43	Direct measurement of the charge distribution along a biased carbon nanotube bundle using electron holography. Applied Physics Letters, 2011, 98, .	3.3	36
44	Highly Dense Isolated Metal Atom Catalytic Sites: Dynamic Formation and In Situ Observations. Chemistry - A European Journal, 2015, 21, 17397-17402.	3.3	36
45	Ferrimagnetic/ferroelastic domain interactions in magnetite below the Verwey transition. Part I: electron holography and Lorentz microscopy. Phase Transitions, 2013, 86, 67-87.	1.3	35
46	Multi-scale three-dimensional characterization of iron particles in dusty olivine: Implications for paleomagnetism of chondritic meteorites. American Mineralogist, 2016, 101, 2070-2084.	1.9	35
47	The quantitative measurement of magnetic moments from phase images of nanoparticles and nanostructuresâ€”I. Fundamentals. Ultramicroscopy, 2010, 110, 425-432.	1.9	34
48	Mineral magnetism of dusty olivine: A credible recorder of pre-accretionary remanence. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	34
49	Off-axis electron holography observation of magnetic microstructure in a magnetite (001) thin film containing antiphase domains. Physical Review B, 2006, 73, .	3.2	33
50	Reversal of Flux Closure States in Cobalt Nanoparticle Rings With Coaxial Magnetic Pulses. Advanced Materials, 2008, 20, 4248-4252.	21.0	33
51	Hydrothermal Formation of Hydroxyapatite Layers on the Surface of Type-A Zeolite. Journal of the American Ceramic Society, 2004, 87, 1395-1397.	3.8	31
52	Towards quantitative electrostatic potential mapping of working semiconductor devices using off-axis electron holography. Ultramicroscopy, 2015, 152, 10-20.	1.9	31
53	Towards quantitative off-axis electron holographic mapping of the electric field around the tip of a sharp biased metallic needle. Journal of Applied Physics, 2014, 116, .	2.5	30
54	Interferometric methods for mapping static electric and magnetic fields. Comptes Rendus Physique, 2014, 15, 126-139.	0.9	30

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55	Low-temperature exchange coupling betweenFe2O3andFeTiO3: Insight into the mechanism of giant exchange bias in a natural nanoscale intergrowth. Physical Review B, 2007, 76, .	3.2	29
56	Formation process and superparamagnetic properties of (Mn,Ga)As nanocrystals in GaAs fabricated by annealing of (Ga,Mn)As layers with low Mn content. Physical Review B, 2011, 84, .	3.2	27
57	Observing thermomagnetic stability of nonideal magnetite particles: Good paleomagnetic recorders?. Geophysical Research Letters, 2014, 41, 7041-7047.	4.0	26
58	Magnetic and microscopic characterization of magnetite nanoparticles adhered to clay surfaces. American Mineralogist, 2009, 94, 1120-1129.	1.9	25
59	Measurement of the penetration depth and coherence length of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">MgB</mml:mi><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>in all directions using transmission electron microscopy. Physical Review B, 2015, 91, .	3.2	25
60	Kinetics of Fe³⁺mineral crystallization from ferrihydrite in the presence of Si at alkaline conditions and implications for nuclear waste disposal. American Mineralogist, 2016, 101, 2057-2069.	1.9	25
61	Oxidation of Dodecanoate Intercalated Iron(II)â€“Iron(III) Layered Double Hydroxide to Form 2D Iron(III) (Hydr)oxide Layers. European Journal of Inorganic Chemistry, 2013, 2013, 5718-5727.	2.0	24
62	Synthesis and characterization of Feâ€“Ni/É£-Al2O3 egg-shell catalyst for H2 generation by ammonia decomposition. Applied Catalysis A: General, 2015, 505, 548-556.	4.3	24
63	Synthesis and characterisation of silica encapsulated cobalt nanoparticles and nanoparticle chains. Journal of Magnetism and Magnetic Materials, 2006, 301, 336-342.	2.3	23
64	Off-axis electron holography of pseudo-spin-valve thin-film magnetic elements. Journal of Applied Physics, 2005, 98, 013903.	2.5	22
65	Remanent magnetic states and interactions in nano-pillars. Nanotechnology, 2006, 17, 4367-4373.	2.6	22
66	Domain walls, domain wall transformations and structural changes in permalloy nanowires when subjected to current pulses. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 3922-3928.	1.8	22
67	Doping GaP Coreâ€“Shell Nanowire pnâ€Junctions: A Study by Offâ€Axis Electron Holography. Small, 2015, 11, 2687-2695.	10.0	22
68	Localized Magnetic Fields in Arbitrary Directions Using Patterned Nanomagnets. Nano Letters, 2010, 10, 1549-1553.	9.1	21
69	Reagentâ€Free Synthesis and Plasmonic Antioxidation of Unique Nanostructured Metalâ€“Metal Oxide Coreâ€“Shell Microfibers. Advanced Materials, 2016, 28, 4097-4104.	21.0	21
70	Off-axis electron holography of ferromagnetic multilayer nanowires. Journal of Applied Physics, 2014, 116, 023902.	2.5	20
71	In-situ TEM investigation of microstructural evolution in magnetron sputtered Alâ€“Zr and Alâ€“Zrâ€“Si coatings during heat treatment. Materials and Design, 2016, 89, 1071-1078.	7.0	20
72	Origin of Self-Reversed Thermoremanent Magnetization. Physical Review Letters, 2005, 95, 268501.	7.8	19

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73	Quantitative determination of vortex core dimensions in head-to-head domain walls using off-axis electron holography. Applied Physics Letters, 2008, 92, 112502.	3.3	19
74	Stability of a Bifunctional Cu-Based Core@Zeolite Shell Catalyst for Dimethyl Ether Synthesis Under Redox Conditions Studied by Environmental Transmission Electron Microscopy andIn SituX-Ray Ptychography. Microscopy and Microanalysis, 2017, 23, 501-512.	0.4	19
75	Calixarene-stabilised cobalt nanoparticle rings: Self-assembly and collective magnetic properties. Supramolecular Chemistry, 2009, 21, 189-195.	1.2	18
76	The application of Lorentz transmission electron microscopy to the study of lamellar magnetism in hematite-ilmenite. American Mineralogist, 2009, 94, 262-269.	1.9	18
77	Texture and microstructure evolution in nickel electrodeposited from an additive-free Watts electrolyte. Surface and Coatings Technology, 2016, 299, 1-6.	4.8	18
78	Structural and optical properties of self-catalytic GaAs:Mn nanowires grown by molecular beam epitaxy on silicon substrates. Nanoscale, 2013, 5, 7410.	5.6	17
79	Lamellar magnetism: effects of interface versus exchange interactions of nanoscale exsolutions in the ilmenite-hematite system. Journal of Physics: Conference Series, 2005, 17, 154-167.	0.4	16
80	Synthesis of Nano-sized Boehmites for Optimum Phosphate Sorption. Separation Science and Technology, 2011, 46, 818-824.	2.5	16
81	The role of nano-perovskite in the negligible thorium release in seawater from Greek bauxite residue (red mud). Scientific Reports, 2016, 6, 21737.	3.3	16
82	Evolution and propagation of magnetic vortices in chains of Permalloy nanospheres. Journal of Applied Physics, 2006, 99, 08G103.	2.5	15
83	Thermal modification of hematite-ilmenite intergrowths in the Ecstall pluton, British Columbia, Canada. American Mineralogist, 2010, 95, 153-160.	1.9	15
84	Magnetic microstructure of iron sulfide crystals in magnetotactic bacteria from off-axis electron holography. Physica B: Condensed Matter, 2006, 384, 249-252.	2.7	14
85	Voids and Mn-rich inclusions in a (Ga,Mn)As ferromagnetic semiconductor investigated by transmission electron microscopy. Journal of Applied Physics, 2011, 109, .	2.5	14
86	Ferrimagnetic/ferroelastic domain interactions in magnetite below the Verwey transition: Part II. Micromagnetic and image simulations. Phase Transitions, 2013, 86, 88-102.	1.3	14
87	A divergent heritage for complex organics in Isheyevo lithic clasts. Geochimica Et Cosmochimica Acta, 2017, 205, 119-148.	3.9	14
88	Remanent magnetization states and interactions in square arrays of 100-nm cobalt dots measured using transmission electron microscopy. Journal of Applied Physics, 2005, 98, 053909.	2.5	13
89	Fabrication of curved-line nanostructures on membranes for transmission electron microscopy investigations of domain walls. Microelectronic Engineering, 2006, 83, 1726-1729.	2.4	13
90	Magnetic properties of ilmenite-hematite single crystals from the Ecstall pluton near Prince Rupert, British Columbia. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	13

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91	RAFT copolymerization of itaconic anhydride and 2-methoxyethyl acrylate: a multifunctional scaffold for preparation of â€œclickableâ€•gold nanoparticles. Chemical Communications, 2013, 49, 4803.	4.1	13
92	Periodic Inclusion of Room-Temperature-Ferromagnetic Metal Phosphide Nanoparticles in Carbon Nanotubes. Journal of Physical Chemistry B, 2006, 110, 9759-9763.	2.6	12
93	GaAsâ€“MnAs nanowires. Physica Status Solidi (B): Basic Research, 2011, 248, 1576-1580.	1.5	12
94	Spin reorientation inÎ±-Fe2O3nanoparticles induced by interparticle exchange interactions inÎ±-Fe2O3/NiO nanocomposites. Physical Review B, 2011, 84, .	3.2	12
95	Effect of maghemization on the magnetic properties of nonstoichiometric pseudoâ€singleâ€domain magnetite particles. Geochemistry, Geophysics, Geosystems, 2015, 16, 2969-2979.	2.5	12
96	Comparison of approaches and artefacts in the measurement of detector modulation transfer functions. Ultramicroscopy, 2013, 129, 18-29.	1.9	11
97	Magnetic characterization of synthetic titanomagnetites: Quantifying the recording fidelity of ideal synthetic analogs. Geochemistry, Geophysics, Geosystems, 2014, 15, 161-175.	2.5	11
98	Electron microscopy study of CeOxâ€“Pd/Î±-Al2O3 catalysts for methane dry reforming. Journal of Applied Physics, 2009, 105, 083531.	2.5	10
99	Longitudinal domain wall formation in elongated assemblies of ferromagnetic nanoparticles. Scientific Reports, 2015, 5, 14536.	3.3	10
100	Characterization of the magnetic properties of a GdBa2Cu3O7/La0.75Sr0.25MnO3 superlattice using off-axis electron holography. Applied Surface Science, 2006, 252, 3977-3983.	6.1	9
101	Local study of the magnetism of Co-doped ZnO thin films. Journal Physics D: Applied Physics, 2006, 39, 1739-1742.	2.8	9
102	Correlation between magnetic spin structure and the three-dimensional geometry in chemically synthesized nanoscale magnetite rings. Applied Physics Letters, 2008, 92, .	3.3	9
103	Interpretation of electron beam induced charging of oxide layers in a transistor studied using electron holography. Journal of Physics: Conference Series, 2010, 209, 012064.	0.4	9
104	Effect of post-growth annealing on secondary phase formation in low-temperature-grown Mn-doped GaAs. Journal Physics D: Applied Physics, 2013, 46, 145309.	2.8	9
105	Transmission electron microscopy of unstained hybrid Au nanoparticles capped with PPAA (plasma-poly-allylamine): Structure and electron irradiation effects. Micron, 2014, 67, 1-9.	2.2	8
106	The Role of Magnetic Vortex Formation in Chains of Spherical FeNi Nanoparticles: A Micromagnetics Study. Japanese Journal of Applied Physics, 2009, 48, 103002.	1.5	7
107	Early Proterozoic weathering processes under low O2 conditions reconstructed from a 2.45 Ga paleosol in Pronto, Canada. American Mineralogist, 2011, 96, 1613-1623.	1.9	7
108	The measurement of electrostatic potentials in core/shell GaN nanowires using off-axis electron holography. Journal of Physics: Conference Series, 2013, 471, 012041.	0.4	7

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109	Tomographic Heating Holder for In Situ TEM: Study of Pt/C and PtPd/Al₂O₃ Catalysts as a Function of Temperature. Microscopy and Microanalysis, 2014, 20, 982-990.	0.4	7
110	Biominerals at the nanoscale. , 0, , 377-435.		7
111	Influence of Aging Products on Tensile Deformation Behavior of Al-0.62 mass%Mg-0.32 mass%Si Alloy. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2015, 79, 273-279.	0.4	5
112	Theoretical and experimental factors affecting measurements of semiconductor mean inner potentials. Journal of Physics: Conference Series, 2010, 209, 012030.	0.4	3
113	Hydrothermal synthesis, off-axis electron holography and magnetic properties of Fe₃O₄nanoparticles. Journal of Physics: Conference Series, 2014, 522, 012062.	0.4	3
114	Mapping boron in silicon solar cells using electron energy-loss spectroscopy. Journal of Physics: Conference Series, 2011, 326, 012052.	0.4	1
115	Conventional and 360 degree electron tomography of a micro-crystalline silicon solar cell. Journal of Physics: Conference Series, 2011, 326, 012057.	0.4	1
116	Aberration-corrected electron microscopy of MnAs and As nanocrystals and voids in annealed (Ga,Mn)As. Journal of Physics: Conference Series, 2011, 326, 012018.	0.4	1
117	3D visualization of TiO2nanocrystals in mesoporous nanocomposite using energy filtered transmission electron microscopy tomography. Microscopy (Oxford, England), 2014, 63, i27.1-i27.	1.5	1
118	Effects of dissolved oxygen concentration and iron addition on immediate-early gene expression of Magnetospirillum gryphiswaldense MSR-1. FEMS Microbiology Letters, 2017, 364, .	1.8	1
119	Biomineralization and Magnetism in Magnetotactic Bacteria. Microscopy and Microanalysis, 2009, 15, 90-91.	0.4	0