

Nobuyuki Zettsu

List of Publications by Year in descending order

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84
papers

1,963
citations

218677

26
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265206

42
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86
all docs

86
docs citations

86
times ranked

2407
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular gate effects observed in fluoroalkylsilane self-assembled monolayers grafted on $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ cathodes: an application to efficient ion-exchange reactions. <i>Materials Advances</i> , 2021, 2, 5406-5414.	5.4	5
2	Metastable oxysulfide surface formation on $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ single crystal particles by carbothermal reaction with sulfur-doped heterocarbon nanoparticles: new insight into their structural and electrochemical characteristics, and their potential applications. <i>Journal of Materials Chemistry A</i> , 2020, 8, 22302-22314.	10.3	17
3	Effects of a solid electrolyte coating on the discharge kinetics of a LiCoO_2 electrode: mechanism and potential applications. <i>Journal of Materials Chemistry A</i> , 2020, 8, 20979-20986.	10.3	16
4	Three-dimensional assembly of multiwalled carbon nanotubes for creating a robust electron-conducting network in silicon-carbon microsphere-based electrodes. <i>Scientific Reports</i> , 2020, 10, 2342.	3.3	4
5	Exclusive Growth of Low-Aspect Ratio, Polyhedral h-BN Crystals in Molten Li_2CO_3 as the Reactive Flux. <i>Crystal Growth and Design</i> , 2019, 19, 5720-5728.	3.0	8
6	Waterproof molecular monolayers stabilize 2D materials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 20844-20849.	7.1	32
7	Three-dimensional SWCNT and MWCNT hybrid networks for extremely high-loading and high rate cathode materials. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17412-17419.	10.3	10
8	Thin and Dense Solid-solid Heterojunction Formation Promoted by Crystal Growth in Flux on a Substrate. <i>Scientific Reports</i> , 2018, 8, 96.	3.3	3
9	Impact of trace extrinsic defect formation on the local symmetry transition in spinel $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ systems and their electrochemical characteristics. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22749-22757.	10.3	10
10	One-Dimensional Growth of $\text{Li}_2\text{NiPO}_4\text{F}$ Single Crystals from Intermediate LiNiPO_4 Crystal Surface Using KCl Fluxes. <i>Crystal Growth and Design</i> , 2018, 18, 6777-6785.	3.0	11
11	Flux-Mediated Topochemical Growth of Platelet-Shaped Perovskite LiNbO_3 Single Crystals from Layered Potassium Niobate Crystals. <i>Crystal Growth and Design</i> , 2018, 18, 4111-4116.	3.0	3
12	Molecular Dynamics Studies on the Lithium Ion Conduction Behaviors Depending on Tilted Grain Boundaries with Various Symmetries in Garnet-Type $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$. <i>Journal of Physical Chemistry C</i> , 2018, 122, 21755-21762.	3.1	31
13	New Insight for Surface Chemistries in Ultra-thin Self-assembled Monolayers Modified High-voltage Spinel Cathodes. <i>Scientific Reports</i> , 2018, 8, 11771.	3.3	11
14	Internal Flow and Crystal Growth by Crucible Rotation Control. <i>The Proceedings of Conference of Hokuriku-Shinetsu Branch</i> , 2018, 2018.55, F043.	0.0	0
15	Crystal growth of titania by photocatalytic reaction. <i>Applied Catalysis B: Environmental</i> , 2017, 217, 241-246.	20.2	13
16	Three-dimensional electric micro-grid networks for high-energy-density lithium-ion battery cathodes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22797-22804.	10.3	18
17	Intrinsic electrochemical characteristics of one $\text{LiNi}_0.5\text{Mn}_{1.5}\text{O}_4$ spinel particle. <i>Journal of Electroanalytical Chemistry</i> , 2017, 799, 468-472.	3.8	20
18	Full picture discovery for mixed-fluorine anion effects on high-voltage spinel lithium nickel manganese oxide cathodes. <i>NPG Asia Materials</i> , 2017, 9, e398-e398.	7.9	22

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19	Growth of idiomorphic LiMnPO_4 crystals in molten NaCl-KCl and LiF-NaCl-KCl fluxes. <i>CrystEngComm</i> , 2017, 19, 93-98.	2.6	8
20	Intrinsic Electrochemical Characteristics in the Individual Needle-like LiCoO_2 Crystals Synthesized by Flux Growth. <i>Electrochemistry</i> , 2017, 85, 72-76.	1.4	8
21	Molybdate flux growth of idiomorphic $\text{Li}(\text{Ni}_{1/3}\text{Co}_{1/3}\text{Mn}_{1/3})\text{O}_2$ single crystals and characterization of their capabilities as cathode materials for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 7289-7296.	10.3	76
22	Growth Manner of Octahedral-Shaped $\text{Li}(\text{Ni}_{1/3}\text{Co}_{1/3}\text{Mn}_{1/3})\text{O}_2$ Single Crystals in Molten Na_2SO_4 . <i>Crystal Growth and Design</i> , 2016, 16, 2618-2623.	3.0	69
23	Effect of Side-Plane Width on Lithium-Ion Transportation in Additive-Free LiCoO_2 Crystal Layer-Based Cathodes for Rechargeable Lithium-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2016, 120, 18496-18502.	3.1	5
24	Surface Modification of Titanium Metal Plate Using Alkali Metal Chlorides. <i>Chemistry Letters</i> , 2016, 45, 729-731.	1.3	2
25	Sub-20 nm Thick Fluoroalkylsilane Self-Assembled Monolayer-Coated High Voltage Spinel Crystals as Promising Cathode Materials for Lithium Ion Batteries. <i>Scientific Reports</i> , 2016, 6, 31999.	3.3	21
26	Phase-selective hydrothermal synthesis of hydrous lithium titanates nanoparticles as a precursor to $\text{Li}_4\text{Ti}_5\text{O}_{12}$ anode material for lithium ion rechargeable batteries. <i>Ceramics International</i> , 2015, 41, 10988-10994.	4.8	4
27	Chloride Flux Growth of $\text{La}_2\text{Ti}_2\text{O}_7$ Crystals and Subsequent Nitridation To Form LaTiO_2N Crystals. <i>Crystal Growth and Design</i> , 2015, 15, 124-128.	3.0	27
28	Growth of Individual, Highly Oriented LiFePO_4 Crystals on a SUS Substrate Using NaCl-KCl Flux Coating. <i>Crystal Growth and Design</i> , 2015, 15, 3922-3928.	3.0	19
29	Defect Formation Energy in Spinel $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ Using Ab Initio DFT Calculations. <i>Journal of Physical Chemistry C</i> , 2015, 119, 9117-9124.	3.1	37
30	Low-temperature growth of idiomorphic cubic-phase $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ crystals using LiOH flux. <i>CrystEngComm</i> , 2015, 17, 3487-3492.	2.6	6
31	Unique Growth Manner of $\text{Li}_5\text{La}_3\text{Ta}_2\text{O}_{12}$ Crystals from Lithium Hydroxide Flux at Low Temperature. <i>Crystal Growth and Design</i> , 2015, 15, 4863-4868.	3.0	10
32	Direct Fabrication of Densely Packed Idiomorphic $\text{Li}_4\text{Ti}_5\text{O}_{12}$ Crystal Layers on Substrates by Using a LiCl-NaCl Mixed Flux and Their Additive-Free Electrode Characteristics. <i>Crystal Growth and Design</i> , 2014, 14, 5634-5639.	3.0	10
33	Low-temperature growth of spinel-type $\text{Li}_{1+x}\text{Mn}_{2x}\text{O}_4$ crystals using a LiCl-KCl flux and their performance as a positive active material in lithium-ion rechargeable batteries. <i>CrystEngComm</i> , 2014, 16, 1157-1162.	2.6	13
34	Fabrication of LiCoO_2 Crystal Layers Using a Flux Method and Their Application for Additive-Free Lithium-Ion Rechargeable Battery Cathodes. <i>Crystal Growth and Design</i> , 2014, 14, 1882-1887.	3.0	40
35	Fabrication of Combined One-Dimensional and Three-Dimensional Structure of Potassium Tungstate Crystal Layers by Spray Deposition with Polystyrene Colloidal Crystal Templates. <i>Crystal Growth and Design</i> , 2013, 13, 3294-3298.	3.0	5
36	Coherent Diffraction Imaging Analysis of Shape-Controlled Nanoparticles with Focused Hard X-ray Free-Electron Laser Pulses. <i>Nano Letters</i> , 2013, 13, 6028-6032.	9.1	57

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37	Fundamental research on the label-free detection of protein adsorption using near-infrared light-responsive plasmonic metal nanoshell arrays with controlled nanogap. <i>Nanoscale Research Letters</i> , 2013, 8, 274.	5.7	2
38	Flux growth of Sr ₂ Ta ₂ O ₇ crystals and subsequent nitridation to form SrTaO ₂ N crystals. <i>CrystEngComm</i> , 2013, 15, 8133.	2.6	34
39	The adsorption mechanism of titanium-binding ferritin to amphoteric oxide. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 102, 435-440.	5.0	9
40	Gold Nanoparticles Supported on SrTiO ₃ by Solution Plasma Sputter Deposition for Enhancing UV- and Visible-light Photocatalytic Efficiency. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1509, 1.	0.1	6
41	Practical protein removal using atmospheric-pressure helium plasma for densely packed gold nanoparticle arrays assembled by ferritin-based encapsulation/transport system. <i>Applied Physics Letters</i> , 2012, 101, 073702.	3.3	2
42	Nanometer-level self-aggregation and three-dimensional growth of copper nanoparticles under dielectric barrier discharge at atmospheric pressure. <i>Current Applied Physics</i> , 2012, 12, S63-S68.	2.4	10
43	Relationship between peroxide radical species on plasma-treated PFA surface and adhesion strength of PFA/electroless copper-plating film. <i>Current Applied Physics</i> , 2012, 12, S38-S41.	2.4	9
44	Towards high-resolution ptychographic x-ray diffraction microscopy. <i>Physical Review B</i> , 2011, 83, .	3.2	71
45	Improvement in Thickness Uniformity of Thick SOI by Numerically Controlled Local Wet Etching. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 2910-2915.	0.9	0
46	Fabrication of Discrete Polystyrene Nanoparticle Arrays with Controllable Their Structural Parameters. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 2956-2961.	0.9	0
47	Finishing of AT-Cut Quartz Crystal Wafer with Nanometric Thickness Uniformity by Pulse-Modulated Atmospheric Pressure Plasma Etching. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 2922-2927.	0.9	0
48	Plasma assisted polishing of single crystal SiC for obtaining atomically flat strain-free surface. <i>CIRP Annals - Manufacturing Technology</i> , 2011, 60, 571-574.	3.6	135
49	Versatile protein-based bifunctional nano-systems (encapsulation and directed assembly): Selective nanoscale positioning of gold nanoparticle-viral protein hybrids. <i>Chemical Physics Letters</i> , 2011, 506, 76-80.	2.6	16
50	Simple and Versatile Route to High Yield Face-to-Face Dimeric Assembly of Ag Nanocubes and Their Surface Plasmonic Properties. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 2890-2896.	0.9	4
51	Control of selective adsorption behavior of Ti-binding ferritin on a SiO ₂ substrate by atomic-scale modulation of local surface charges. <i>Applied Physics Letters</i> , 2011, 99, 263701.	3.3	6
52	Enhanced Red-Light Emission by Local Plasmon Coupling of Au Nanorods in an Organic Light-Emitting Diode. <i>Applied Physics Express</i> , 2011, 4, 032105.	2.4	28
53	Multiscale element mapping of buried structures by ptychographic x-ray diffraction microscopy using anomalous scattering. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	26
54	Evaluation of Surface Roughness of Quartz Glass Substrate in Fabrication Process for Neutron Focusing Mirror. <i>Advanced Materials Research</i> , 2011, 325, 647-652.	0.3	0

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55	Damage-Free Dry Polishing of 4H-SiC Combined with Atmospheric-Pressure Water Vapor Plasma Oxidation. Japanese Journal of Applied Physics, 2011, 50, 08JG05.	1.5	9
56	Two-dimensional measurement of focused hard X-ray beam profile using coherent X-ray diffraction of isolated nanoparticle. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 616, 266-269.	1.6	0
57	Atmospheric pressure plasma liquid deposition of copper nanoparticles on poly(4-vinylpyridine)-grafted-poly(tetrafluoroethylene) surface and their autocatalytic properties. Thin Solid Films, 2010, 518, 3551-3554.	1.8	8
58	Fabrication of discrete array of metallodielectric nanoshells and their surface plasmonic properties. Thin Solid Films, 2010, 518, 3581-3584.	1.8	5
59	Atmospheric pressure plasma liquid deposition of copper nanoparticles onto poly(4-vinylpyridine)-grafted-poly(tetrafluoroethylene) surface. Transactions of the Materials Research Society of Japan, 2010, 35, 817-820.	0.2	4
60	Effect of Substrate Heating in Thickness Correction of Quartz Crystal Wafer by Plasma Chemical Vaporization Machining. Key Engineering Materials, 2010, 447-448, 218-222.	0.4	3
61	High-resolution projection image reconstruction of thick objects by hard x-ray diffraction microscopy. Physical Review B, 2010, 82, .	3.2	38
62	High-Integrity Finishing of 4H-SiC (0001) by Plasma-Assisted Polishing. Advanced Materials Research, 2010, 126-128, 423-428.	0.3	27
63	Three-Dimensional Electron Density Mapping of Shape-Controlled Nanoparticle by Focused Hard X-ray Diffraction Microscopy. Nano Letters, 2010, 10, 1922-1926.	9.1	63
64	Improvement of thickness uniformity of bulk silicon wafer by numerically controlled local wet etching. Journal of Crystal Growth, 2009, 311, 2560-2563.	1.5	2
65	Figuring of plano-elliptical neutron focusing mirror by local wet etching. Optics Express, 2009, 17, 6414.	3.4	30
66	High-resolution diffraction microscopy using the plane-wave field of a nearly diffraction limited focused x-ray beam. Physical Review B, 2009, 80, .	3.2	59
67	Highly efficient damage-free correction of thickness distribution of quartz crystal wafers by atmospheric pressure plasma etching. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 1128-1130.	3.0	3
68	Plasma-chemical surface functionalization of flexible substrates at atmospheric pressure. Thin Solid Films, 2008, 516, 6683-6687.	1.8	17
69	Uniformalization of AT cut quartz crystal wafer thickness using open-air type plasma CVM process. Surface and Interface Analysis, 2008, 40, 1007-1010.	1.8	1
70	Photo-triggered Surface Relief Grating Formation in Supramolecular Liquid Crystalline Polymer Systems with Detachable Azobenzene Unit. Advanced Materials, 2008, 20, 516-521.	21.0	115
71	Surface functionalization of PTFE sheet through atmospheric pressure plasma liquid deposition approach. Surface and Coatings Technology, 2008, 202, 5284-5288.	4.8	29
72	Highly Photosensitive Surface Relief Gratings Formation in a Liquid Crystalline Azobenzene Polymer: New Implications for the Migration Process. Macromolecules, 2007, 40, 4607-4613.	4.8	63

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73	Dual luminophore polystyrene microspheres for pressure-sensitive luminescent imaging. <i>Measurement Science and Technology</i> , 2006, 17, 1254-1260.	2.6	56
74	Synthesis, Stability, and Surface Plasmonic Properties of Rhodium Multipods, and Their Use as Substrates for Surface-Enhanced Raman Scattering. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 1288-1292.	13.8	135
75	Spontaneous motion observed in highly sensitive surface relief formation system. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2005, 257-258, 123-126.	4.7	13
76	Light-Driven Organized Layer Materials. <i>Molecular Crystals and Liquid Crystals</i> , 2005, 430, 107-114.	0.9	9
77	Two-Dimensional Manipulation of Poly(3-dodecylthiophene) using Light-Driven Instant Mass Migration as a Molecular Conveyor. <i>Japanese Journal of Applied Physics</i> , 2004, 43, L1169-L1171.	1.5	15
78	Highly Efficient Photogeneration of Surface Relief Structure and Its Immobilization in Cross-Linkable Liquid Crystalline Azobenzene Polymers. <i>Macromolecules</i> , 2004, 37, 8692-8698.	4.8	62
79	Unconventional polarization characteristic of rapid photoinduced material motion in liquid crystalline azobenzene polymer films. <i>Applied Physics Letters</i> , 2003, 83, 4960-4962.	3.3	37
80	Azo Polymers with Oligo(ethylene oxide) Side Chain for Rapid Surface Relief Formation.. <i>Journal of Photopolymer Science and Technology</i> = [Fotoporima Konwakai Shi], 2001, 14, 193-194.	0.3	2
81	Photoinduced reorientation of azo-dyes covalently linked to a styrene copolymer in bulk state. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2001, 143, 31-38.	3.9	8
82	Soft Crosslinkable Azo Polymer for Rapid Surface Relief Formation and Persistent Fixation. <i>Advanced Materials</i> , 2001, 13, 1693-1697.	21.0	93
83	Fabrication of Ultraprecision Millimeter-Thick Elliptical Neutron Focusing Mirror Substrate by Local Wet Etching. <i>Key Engineering Materials</i> , 0, 447-448, 208-212.	0.4	0
84	Adhesion Strength of Electroless Copper Plated Layer on Fluoropolymer Surface Modified by Medium Pressure Plasma. <i>Key Engineering Materials</i> , 0, 523-524, 262-266.	0.4	4