Nobumichi Tamura

List of Publications by Year
in descending order

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306	10,603	31902 53	46693 89
papers	citations	h-index	g-index

317	317	317	11586
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Synchrotron X-ray Analytical Techniques for Studying Materials Electrochemistry in Rechargeable Batteries. Chemical Reviews, 2017, 117, 13123-13186.	23.0	390
2	Effect of Surface Microstructure on Electrochemical Performance of Garnet Solid Electrolytes. ACS Applied Materials & Interfaces, 2015, 7, 2073-2081.	4.0	347
3	Lattice strain causes non-radiative losses in halide perovskites. Energy and Environmental Science, 2019, 12, 596-606.	15.6	343
4	Quantitative Speciation of Heavy Metals in Soils and Sediments by Synchrotron X-ray Techniques. Reviews in Mineralogy and Geochemistry, 2002, 49, 341-428.	2.2	264
5	Scanning X-ray microdiffraction with submicrometer white beam for strain/stress and orientation mapping in thin films. Journal of Synchrotron Radiation, 2003, 10, 137-143.	1.0	245
6	Amorphous calcium carbonate particles form coral skeletons. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7670-E7678.	3.3	243
7	Extended Mapping and Exploration of the Vanadium Dioxide Stress-Temperature Phase Diagram. Nano Letters, 2010, 10, 2667-2673.	4.5	215
8	Mechanism of Calcite Co-Orientation in the Sea Urchin Tooth. Journal of the American Chemical Society, 2009, 131, 18404-18409.	6.6	181
9	Molecular-Scale Speciation of Zn and Ni in Soil Ferromanganese Nodules from Loess Soils of the Mississippi Basin. Environmental Science & Technology, 2003, 37, 75-80.	4.6	171
10	Submicron x-ray diffraction and its applications to problems in materials and environmental science. Review of Scientific Instruments, 2002, 73, 1369-1372.	0.6	168
11	Tin whiskers studied by synchrotron radiation scanning X-ray micro-diffraction. Acta Materialia, 2003, 51, 6253-6261.	3.8	166
12	Evidence for a Cluster-Based Structure of AlPdMn Single Quasicrystals. Physical Review Letters, 1996, 77, 3827-3830.	2.9	161
13	A dedicated superbend x-ray microdiffraction beamline for materials, geo-, and environmental sciences at the advanced light source. Review of Scientific Instruments, 2009, 80, 035108.	0.6	161
14	Mobile metallic domain walls in an all-in-all-out magnetic insulator. Science, 2015, 350, 538-541.	6.0	159
15	Natural speciation of Zn at the micrometer scale in a clayey soil using X-ray fluorescence, absorption, and diffraction. Geochimica Et Cosmochimica Acta, 2004, 68, 2467-2483.	1.6	156
16	Visualization of Charge Distribution in a Lithium Battery Electrode. Journal of Physical Chemistry Letters, 2010, 1, 2120-2123.	2.1	155
17	Measurement of stresses in Cu and Si around through-silicon via by synchrotron X-ray microdiffraction for 3-dimensional integrated circuits. Microelectronics Reliability, 2012, 52, 530-533.	0.9	133
18	Gradual Ordering in Red Abalone Nacre. Journal of the American Chemical Society, 2008, 130, 17519-17527.	6.6	126

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19	X-ray microdiffraction study of growth modes and crystallographic tilts in oxide films on metal substrates. Nature Materials, 2003, 2, 487-492.	13.3	114
20	Natural speciation of Mn, Ni, and Zn at the micrometer scale in a clayey paddy soil using X-ray fluorescence, absorption, and diffraction. Geochimica Et Cosmochimica Acta, 2005, 69, 4007-4034.	1.6	109
21	Molecular Weaving of Covalent Organic Frameworks for Adaptive Guest Inclusion. Journal of the American Chemical Society, 2018, 140, 16015-16019.	6.6	107
22	Deciphering Ni sequestration in soil ferromanganese nodules by combining X-ray fluorescence, absorption, and diffraction at micrometer scales of resolution. American Mineralogist, 2002, 87, 1494-1499.	0.9	102
23	Crystal plasticity in Cu damascene interconnect lines undergoing electromigration as revealed by synchrotron x-ray microdiffraction. Applied Physics Letters, 2006, 88, 233515.	1.5	100
24	Learning from the past: Rare Îµ-Fe2O3 in the ancient black-glazed Jian (Tenmoku) wares. Scientific Reports, 2014, 4, 4941.	1.6	100
25	Dramatic morphological change of scallop-type Cu6Sn5 formed on (001) single crystal copper in reaction between molten SnPb solder and Cu. Applied Physics Letters, 2007, 91, .	1.5	99
26	Elemental Topological Dirac Semimetal: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math> -Sn on InSb(111). Physical Review Letters, 2017, 118, 146402.	2.9	98
27	High-pressure strengthening in ultrafine-grained metals. Nature, 2020, 579, 67-72.	13.7	96
28	Submicron X-ray diffraction. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 467-468, 936-943.	0.7	92
29	Helical van der Waals crystals with discretized Eshelby twist. Nature, 2019, 570, 358-362.	13.7	91
30	A search for evidence of strain gradient hardening in Au submicron pillars under uniaxial compression using synchrotron X-ray microdiffraction. Acta Materialia, 2008, 56, 602-608.	3.8	90
31	Light-driven anaerobic microbial oxidation of manganese. Nature, 2019, 576, 311-314.	13.7	90
32	Zinc mobility and speciation in soil covered by contaminated dredged sediment using micrometer-scale and bulk-averaging X-ray fluorescence, absorption and diffraction techniques. Geochimica Et Cosmochimica Acta, 2005, 69, 1173-1198.	1.6	89
33	High spatial resolution grain orientation and strain mapping in thin films using polychromatic submicron x-ray diffraction. Applied Physics Letters, 2002, 80, 3724-3726.	1.5	85
34	Spectroscopic Evidence for Uranium Bearing Precipitates in Vadose Zone Sediments at the Hanford 300-Area Site. Environmental Science & Technology, 2007, 41, 4633-4639.	4.6	84
35	Electromigration-induced plastic deformation in passivated metal lines. Applied Physics Letters, 2002, 81, 4168-4170.	1.5	82
36	Direct measurement of triaxial strain fields around ferroelectric domains using X-ray microdiffraction. Nature Materials, 2003, 2, 379-381.	13.3	74

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37	Preferred orientation relationship between Cu6Sn5 scallop-type grains and Cu substrate in reactions between molten Sn-based solders and Cu. Journal of Applied Physics, 2007, 102, .	1.1	67
38	Microstructure Evolution and Defect Formation in Cu Through-Silicon Vias (TSVs) During Thermal Annealing. Journal of Electronic Materials, 2012, 41, 712-719.	1.0	67
39	Synthesizing skyrmion bound pairs in Fe-Gd thin films. Applied Physics Letters, 2016, 109, .	1.5	67
40	Electromigration-induced microstructure evolution in tin studied by synchrotron x-ray microdiffraction. Applied Physics Letters, 2004, 85, 2490-2492.	1.5	66
41	XMAS: A Versatile Tool for Analyzing Synchrotron X-ray Microdiffraction Data. , 2014, , 125-155.		65
42	Cation-Dependent Light-Induced Halide Demixing in Hybrid Organicâ€“Inorganic Perovskites. Nano Letters, 2018, 18, 3473-3480.	4.5	65
43	Oriented porous LLZO 3D structures obtained by freeze casting for battery applications. Journal of Materials Chemistry A, 2019, 7, 20861-20870.	5.2	65
44	Biomineral nanoparticles are space-filling. Nanoscale, 2011, 3, 603-609.	2.8	64
45	Crystal lattice tilting in prismatic calcite. Journal of Structural Biology, 2013, 183, 180-190.	1.3	63
46	Influence of bulk pre-straining on the size effect in nickel compression pillars. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 147-158.	2.6	59
47	Role of joule heating effect and bulk-surface phases in voltage-driven metal-insulator transition in VO2 crystal. Applied Physics Letters, 2013, 103, .	1.5	59
48	Plasticity mechanism for copper extrusion in through-silicon vias for three-dimensional interconnects. Applied Physics Letters, 2013, 103, .	1.5	57
49	Mechanism of heat affected zone cracking in Ni-based superalloy DZ125L fabricated by laser 3D printing technique. Materials and Design, 2018, 150, 171-181.	3.3	57
50	A superbend X-ray microdiffraction beamline at the advanced light source. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 524, 28-32.	2.6	56
51	Plasticity evolution in nanoscale Cu/Nb single-crystal multilayers as revealed by synchrotron X-ray microdiffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 635, 6-12.	2.6	56
52	Early stage of plastic deformation in thin films undergoing electromigration. Journal of Applied Physics, 2003, 94, 3757-3761.	1.1	55
53	Local Plasticity of Al Thin Films as Revealed by X-Ray Microdiffraction. Physical Review Letters, 2003, 90, 096102.	2.9	55
54	Fabrication, microstructure, and mechanical properties of tin nanostructures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5822-5832.	2.6	54

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55	Crystal nucleation and near-epitaxial growth in nacre. Journal of Structural Biology, 2013, 184, 454-463.	1.3	54
56	Enabling thin silicon technologies for next generation c-Si solar PV renewable energy systems using synchrotron X-ray microdiffraction as stress and crack mechanism probe. Solar Energy Materials and Solar Cells, 2014, 130, 303-308.	3.0	54
57	Out-of-equilibrium processes in crystallization of organic-inorganic perovskites during spin coating. Nature Communications, 2021, 12, 5624.	5.8	53
58	Indentation size effects in single crystal copper as revealed by synchrotron x-ray microdiffraction. Journal of Applied Physics, 2008, 104, 043501.	1.1	52
59	Scalable Freeze-Tape-Casting Fabrication and Pore Structure Analysis of 3D LLZO Solid-State Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 3494-3501.	4.0	52
60	Trace metal fluxes to ferromanganese nodules from the western Baltic Sea as a record for long-term environmental changes. Chemical Geology, 2002, 182, 697-709.	1.4	51
61	High spatial resolution stress measurements using synchrotron based scanning X-ray microdiffraction with white or monochromatic beam. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 399, 92-98.	2.6	51
62	Nacre tablet thickness records formation temperature in modern and fossil shells. Earth and Planetary Science Letters, 2017, 460, 281-292.	1.8	51
63	A contribution to the Alâ€“Pdâ€“Mn phase diagram. Journal of Alloys and Compounds, 1999, 290, 164-171.	2.8	50
64	Stability and Compressibility of Cation-Doped High-Entropy Oxide MgCoNiCuZnO₅. Journal of Physical Chemistry C, 2019, 123, 17735-17744.	1.5	50
65	Diffusion ofMn54andFe59in icosahedral Al-Pd-Mn single quasicrystals. Physical Review B, 1996, 54, R6815-R6818.	1.1	49
66	Plasticity in the nanoscale Cu/Nb single-crystal multilayers as revealed by synchrotron Laue x-ray microdiffraction. Journal of Materials Research, 2012, 27, 599-611.	1.2	49
67	From cells to laminate: probing and modeling residual stress evolution in thin silicon photovoltaic modules using synchrotron Xâ€ray microâ€diffraction experiments and finite element simulations. Progress in Photovoltaics: Research and Applications, 2017, 25, 791-809.	4.4	47
68	Growth and structural characterization of epitaxial Cu/Nb multilayers. Thin Solid Films, 2011, 519, 4137-4143.	0.8	45
69	Controlling the Temperature and Speed of the Phase Transition of VO₂ Microcrystals. ACS Applied Materials & Interfaces, 2016, 8, 2280-2286.	4.0	44
70	Influence of Nonuniform Micron-Scale Strain Distributions on the Electrical Reorientation of Magnetic Microstructures in a Composite Multiferroic Heterostructure. Nano Letters, 2018, 18, 1952-1961.	4.5	44
71	Plastic deformation in Al (Cu) interconnects stressed by electromigration and studied by synchrotron polychromatic x-ray microdiffraction. Journal of Applied Physics, 2008, 104, .	1.1	43
72	Structure and Mechanical Properties of a Pteropod Shell Consisting of Interlocked Helical Aragonite Nanofibers. Angewandte Chemie - International Edition, 2011, 50, 10361-10365.	7.2	43

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73	Constant threshold resistivity in the metal-insulator transition of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>VO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msu Physical Review B, 2010, 82, .	1.1	42
74	Probing Phase Transformations and Microstructural Evolutions at the Small Scales: Synchrotron X-ray Microdiffraction for Advanced Applications in 3D IC (Integrated Circuits) and Solar PV (Photovoltaic) Devices. Journal of Electronic Materials, 2016, 45, 6222-6232.	1.0	42
75	Scaling of the strange-metal scattering in unconventional superconductors. Nature, 2022, 602, 431-436.	13.7	42
76	Influence of Taoism on the invention of the purple pigment used on the Qin terracotta warriors. Journal of Archaeological Science, 2007, 34, 1878-1883.	1.2	41
77	Determination of the stretch tensor for structural transformations. Journal of the Mechanics and Physics of Solids, 2016, 93, 34-43.	2.3	41
78	On the Mechanical Stresses of Cu Through-Silicon Via (TSV) Samples Fabricated by SK Hynix vs. SEMATECH â€“ Enabling Robust and Reliable 3-D Interconnect/Integrated Circuit (IC) Technology. Procedia Engineering, 2016, 139, 101-111.	1.2	40
79	Revealing the Dynamics of Hybrid Metal Halide Perovskite Formation via Multimodal In Situ Probes. Advanced Functional Materials, 2020, 30, 1908337.	7.8	40
80	Nonpercolative metal-insulator transition in VO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>single crystals. Physical Review B, 2011, 84, .	1.1	39
81	Probing stress and fracture mechanism in encapsulated thin silicon solar cells by synchrotron X-ray microdiffraction. Solar Energy Materials and Solar Cells, 2017, 162, 30-40.	3.0	39
82	Quantitative microstructural imaging by scanning Laue x-ray micro- and nanodiffraction. MRS Bulletin, 2016, 41, 445-453.	1.7	38
83	Monoclinic Al13Fe4 approximant phase: a link between icosahedral and decagonal phases. Journal of Non-Crystalline Solids, 1993, 153-154, 126-131.	1.5	37
84	The passivation of calcite by acid mine water. Column experiments with ferric sulfate and ferric chloride solutions at pH 2. Applied Geochemistry, 2008, 23, 3579-3588.	1.4	37
85	Parrotfish Teeth: Stiff Biominerals Whose Microstructure Makes Them Tough and Abrasion-Resistant To Bite Stony Corals. ACS Nano, 2017, 11, 11856-11865.	7.3	37
86	Mechanism and Prevention of Spontaneous Tin Whisker Growth. Materials Transactions, 2005, 46, 2300-2308.	0.4	36
87	Ultrafast growth of wadsleyite in shock-produced melts and its implications for early solar system impact processes. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13691-13695.	3.3	36
88	Fabrication, structure and mechanical properties of indium nanopillars. Acta Materialia, 2010, 58, 1361-1368.	3.8	36
89	Micro scanning X-ray diffraction study of Gallo-Roman Terra Sigillata ceramics. Applied Physics A: Materials Science and Processing, 2006, 83, 219-224.	1.1	35
90	Electromigration-Induced Plasticity: Texture Correlation and Implications for Reliability Assessment. Journal of Electronic Materials, 2009, 38, 379-391.	1.0	35

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91	Directed assembly of nano-scale phase variants in highly strained BiFeO3 thin films. Journal of Applied Physics, 2012, 112, 064102.	1.1	35
92	Microstructure, crystallization and shape memory behavior of titania and yttria co-doped zirconia. Journal of the European Ceramic Society, 2016, 36, 1277-1283.	2.8	35
93	Impact of deposition conditions on the crystallization kinetics of amorphous GeTe films. Journal of Materials Science, 2016, 51, 1864-1872.	1.7	34
94	Highly Enhanced Curie Temperature in Gaâ€Implanted Fe₃GeTe₂ van der Waals Material. Advanced Quantum Technologies, 2020, 3, 2000017.	1.8	34
95	Structure and kinetics of Sn whisker growth on Pb-free solder finish. , 0, , .		33
96	Time and spatial resolution of slip and twinning in a grain embedded within a magnesium polycrystal. Acta Materialia, 2014, 78, 203-212.	3.8	33
97	Residual stress preserved in quartz from the San Andreas Fault Observatory at Depth. Geology, 2015, 43, 219-222.	2.0	33
98	Strain and Texture in Al-Interconnect Wires Weasured by X-Xay Microbeam Diffraction. Materials Research Society Symposia Proceedings, 1999, 563, 175.	0.1	32
99	Quantitative analysis of dislocation arrangements induced by electromigration in a passivated Alâ€,(0.5â€,wtâ€Š%â€,Cu) interconnect. Journal of Applied Physics, 2003, 93, 5701-5706.	1.1	32
100	Atomic model of dislocations in Al-Pd-Mn icosahedral quasicrystals. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1998, 77, 1481-1497.	0.8	31
101	Plasticity of indium nanostructures as revealed by synchrotron X-ray microdiffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 538, 89-97.	2.6	31
102	A synchrotron study of defect and strain inhomogeneity in laser-assisted three-dimensionally-printed Ni-based superalloy. Applied Physics Letters, 2015, 107, .	1.5	31
103	Synchrotron X-ray Micro-diffraction â€“ Probing Stress State in Encapsulated Thin Silicon Solar Cells. Procedia Engineering, 2016, 139, 123-133.	1.2	31
104	The concept of crystalline approximants for decagonal and icosahedral quasicrystals. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1997, 76, 337-356.	0.8	30
105	X-Ray absorption spectroscopy of transition metalâ€“magnesium hydride thin films. Journal of Alloys and Compounds, 2003, 356-357, 204-207.	2.8	30
106	Mapping mesoscale heterogeneity in the plastic deformation of a copper single crystal. Philosophical Magazine, 2009, 89, 77-107.	0.7	30
107	Grain boundary effects on the mechanical properties of bismuth nanostructures. Acta Materialia, 2011, 59, 4709-4718.	3.8	30
108	Sulfide oxidation observed using micro-Raman spectroscopy and micro-X-ray diffraction: The importance of water/rock ratios and pH conditions. American Mineralogist, 2010, 95, 582-591.	0.9	29

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109	Fate of arsenic-bearing phases during the suspended transport in a gold mining district (Isle river) Tj ETQq1 1 0.784314 rgBT /Overloc	3.9	29
110	Raftingâ€Enabled Recovery Avoids Recrystallization in 3Dâ€Printingâ€Repaired Singleâ€Crystal Superalloys. Advanced Materials, 2020, 32, e1907164.	11.1	28
111	Using a non-monochromatic microbeam for serial snapshot crystallography. Journal of Applied Crystallography, 2013, 46, 791-794.	1.9	27
112	In situmeasurement of electromigration-induced transient stress in Pb-free Snâ€“Cu solder joints by synchrotron radiation based x-ray polychromatic microdiffraction. Journal of Applied Physics, 2009, 106, 023502.	1.1	26
113	Crystal Structure of an Indigo@Silicalite Hybrid Related to the Ancient Maya Blue Pigment. Journal of Physical Chemistry C, 2014, 118, 28032-28042.	1.5	26
114	Reversal in the Size Dependence of Grain Rotation. Physical Review Letters, 2017, 118, 096101.	2.9	26
115	In-situ studies on martensitic transformation and high-temperature shape memory in small volume zirconia. Acta Materialia, 2017, 134, 257-266.	3.8	26
116	Deformation patterns in cross-sections of twisted bamboo-structured Au microwires. Acta Materialia, 2015, 97, 216-222.	3.8	25
117	A study of deformation and strain induced in bulk by the oxide layers formation on a Fe-Cr-Al alloy in high-temperature liquid Pb-Bi eutectic. Acta Materialia, 2018, 151, 301-309.	3.8	25
118	Resistive contribution in electrical-switching experiments with antiferromagnets. Physical Review Research, 2020, 2, .	1.3	25
119	Selective ion sputtering and initial oxidation in Alî—¸Pdî—¸Mn single quasicrystals. Scripta Materialia, 1996, 35, 891-895.	2.6	24
120	Oxidation kinetics of high strength low alloy steels at elevated temperatures. Corrosion Science, 2008, 50, 2804-2815.	3.0	24
121	Evidence for residual elastic strain in deformed natural quartz. American Mineralogist, 2009, 94, 1059-1062.	0.9	24
122	The nature of marbled Terra Sigillata slips: a combined Î¼XRF andÂÎ¼XRD investigation. Applied Physics A: Materials Science and Processing, 2010, 99, 419-425.	1.1	24
123	Mapping of Heterogeneous Catalyst Degradation in Polymer Electrolyte Fuel Cells. Advanced Energy Materials, 2020, 10, 2000623.	10.2	24
124	Mesoscale x-ray diffraction measurement of stress relaxation associated with buckling in compressed thin films. Applied Physics Letters, 2003, 83, 51-53.	1.5	23
125	Observation of insulatingâ€“insulating monoclinic structural transition in macroâ€sized VO₂ single crystals. Physica Status Solidi - Rapid Research Letters, 2011, 5, 107-109.	1.2	23
126	Rotating lattice single crystal architecture on the surface of glass. Scientific Reports, 2016, 6, 36449.	1.6	22

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127	X-ray microdiffraction: local stress distributions in polycrystalline and epitaxial thin films. Microelectronic Engineering, 2004, 75, 117-126.	1.1	21
128	In-situ microscale through-silicon via strain measurements by synchrotron x-ray microdiffraction exploring the physics behind data interpretation. Applied Physics Letters, 2014, 105, .	1.5	21
129	A synchrotron study of microstructure gradient in laser additively formed epitaxial Ni-based superalloy. Scientific Reports, 2015, 5, 14903.	1.6	21
130	Thermomechanical residual stress evaluation in multi-crystalline silicon solar cells of photovoltaic modules with different encapsulation polymers using synchrotron X-ray microdiffraction. Solar Energy Materials and Solar Cells, 2019, 193, 387-402.	3.0	21
131	Crystal nucleation and growth of spherulites demonstrated by coral skeletons and phase-field simulations. Acta Biomaterialia, 2021, 120, 277-292.	4.1	21
132	Evolution of terra sigillata technology from Italy to Gaul through a multi-technique approach. Journal of Analytical Atomic Spectrometry, 2015, 30, 658-665.	1.6	20
133	Imaging Anomalous Nematic Order and Strain in Optimally Doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>BaFe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn><mml:mo stretchy="false">(</mml:mo><mml:mi>As</mml:mi><mml:mo>,</mml:mo><mml:mi) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 492	3.8	20
134	Microstructure and pinning properties of hexagonal-disc shaped single crystallineMgB2. Physical Review B, 2002, 66, .	1.1	19
135	Evidence for high stress in quartz from the impact site of Vredefort, South Africa. European Journal of Mineralogy, 2011, 23, 169-178.	0.4	19
136	Thermomechanical strain measurements by synchrotron x-ray diffraction and data interpretation for through-silicon vias. Applied Physics Letters, 2013, 103, .	1.5	19
137	Improving aluminum particle reactivity by annealing and quenching treatments: Synchrotron X-ray diffraction analysis of strain. Acta Materialia, 2016, 103, 495-501.	3.8	19
138	Statistical study of ductility-dip cracking induced plastic deformation in polycrystalline laser 3D printed Ni-based superalloy. Scientific Reports, 2017, 7, 2859.	1.6	19
139	Serial snapshot crystallography for materials science with SwissFEL. IUCrJ, 2015, 2, 361-370.	1.0	19
140	Isotropic magnetoresistance of icosahedral Al-Pd-Mn. Physical Review B, 1999, 60, 7208-7212.	1.1	18
141	X-Ray Microbeam Measurement of Local Texture and Strain in Metals. Materials Research Society Symposia Proceedings, 1999, 563, 169.	0.1	18
142	Evidence of plastic damage in thin films around buckling structures. Thin Solid Films, 2004, 469-470, 221-226.	0.8	18
143	A Comparison of X-Ray Microdiffraction and Coherent Gradient Sensing in Measuring Discontinuous Curvatures in Thin Film: Substrate Systems. Journal of Applied Mechanics, Transactions ASME, 2006, 73, 723-729.	1.1	18
144	Deformation twinning and residual stress in calcite studied with synchrotron polychromatic X-ray microdiffraction. Physics and Chemistry of Minerals, 2011, 38, 491-500.	0.3	18

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145	Complementary use of monochromatic and white-beam X-ray micro-diffraction for the investigation of ancient materials. Journal of Applied Crystallography, 2015, 48, 1522-1533.	1.9	18
146	A metastable phase of tin in 3D integrated circuit solder microbumps. Scripta Materialia, 2015, 102, 39-42.	2.6	18
147	Real-time microstructure imaging by Laue microdiffraction: A sample application in laser 3D printed Ni-based superalloys. Scientific Reports, 2016, 6, 28144.	1.6	18
148	A peak position comparison method for high-speed quantitative Laue microdiffraction data processing. Scripta Materialia, 2018, 143, 49-53.	2.6	18
149	X-Ray Diffraction under Extreme Conditions at the Advanced Light Source. Quantum Beam Science, 2018, 2, 4.	0.6	18
150	Methodology for optimalin situalignment and setting of bendable optics for nearly diffraction-limited focusing of soft x-rays. Optical Engineering, 2013, 52, 033603.	0.5	17
151	Can Laue microdiffraction be used to solve and refine complex inorganic structures?. Journal of Applied Crystallography, 2013, 46, 1805-1816.	1.9	17
152	Low Stress Encapsulants? Influence of Encapsulation Materials on Stress and Fracture of Thin Silicon Solar Cells as Revealed by Synchrotron X-ray Submicron Diffraction. Procedia Engineering, 2016, 139, 76-86.	1.2	17
153	Probing Stress States in Silicon Nanowires During Electrochemical Lithiation Using In Situ Synchrotron X-Ray Microdiffraction. Frontiers in Energy Research, 2018, 6, .	1.2	17
154	Triacontahedral growth morphology in icosahedral ZnMg-Y alloy. Philosophical Magazine Letters, 1996, 74, 89-98.	0.5	16
155	Quantitative characterization of electromigration-induced plastic deformation in Al(0.5wt%Cu) interconnect. Microelectronic Engineering, 2004, 75, 24-30.	1.1	16
156	Dimension and liner dependent thermomechanical strain characterization of through-silicon vias using synchrotron x-ray diffraction. Journal of Applied Physics, 2013, 114, 064908.	1.1	16
157	In situ synchrotron study of electromigration induced grain rotations in Sn solder joints. Scientific Reports, 2016, 6, 24418.	1.6	16
158	3-D Measurement of Deformation Microstructure in Al(0.2%)Mg Using Submicron Resolution White x-ray Microbeams. Materials Research Society Symposia Proceedings, 1999, 590, 247.	0.1	15
159	Microtexture and Strain in Electroplated Copper Interconnects. Materials Research Society Symposia Proceedings, 2000, 612, 1031.	0.1	15
160	X-Ray Microdiffraction of Biominerals. Methods in Enzymology, 2013, 532, 501-531.	0.4	15
161	Study of Stresses and Plasticity in Through-Silicon Via Structures for 3D Interconnects by X-Ray Micro-Beam Diffraction. IEEE Transactions on Device and Materials Reliability, 2014, 14, 698-703.	1.5	15
162	Ferroelectric soft mode of polarZnTiO3investigated by Raman spectroscopy at high pressure. Physical Review B, 2015, 91, .	1.1	15

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163	Synthesis of monodisperse CeO₂â€“ZrO₂ particles exhibiting cyclic superelasticity over hundreds of cycles. Journal of the American Ceramic Society, 2017, 100, 4199-4208.	1.9	15
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