

# Lothar Houben

## List of Publications by Citations

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171  
papers

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41  
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77  
g-index

177  
ext. papers

7,702  
ext. citations

8.6  
avg, IF

5.87  
L-index

#	Paper	IF	Citations
171	Intrinsic microcrystalline silicon: A new material for photovoltaics. <i>Solar Energy Materials and Solar Cells</i> , <b>2000</b> , 62, 97-108	6.4	507
170	Texture etched ZnO:Al coated glass substrates for silicon based thin film solar cells. <i>Thin Solid Films</i> , <b>1999</b> , 351, 247-253	2.2	478
169	New Route for Stabilization of 1T-WS <sub>2</sub> and MoS <sub>2</sub> Phases. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 24586-24596	6.2	24596
168	Edge and confinement effects allow in situ measurement of size and thickness of liquid-exfoliated nanosheets. <i>Nature Communications</i> , <b>2014</b> , 5, 4576	17.4	350
167	Unit-cell scale mapping of ferroelectricity and tetragonality in epitaxial ultrathin ferroelectric films. <i>Nature Materials</i> , <b>2007</b> , 6, 64-9	27	322
166	Structural properties of microcrystalline silicon in the transition from highly crystalline to amorphous growth. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>1998</b> , 77, 1447-1460		237
165	Controlling the orientation, edge geometry, and thickness of chemical vapor deposition graphene. <i>ACS Nano</i> , <b>2013</b> , 7, 1351-9	16.7	159
164	Method for suppression of stacking faults in Wurtzite III-V nanowires. <i>Nano Letters</i> , <b>2009</b> , 9, 1506-10	11.5	148
163	Nucleation, Growth, and Structural Transformations of Perovskite Nanocrystals. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 1302-1308	9.6	146
162	Enantioselective control of lattice and shape chirality in inorganic nanostructures using chiral biomolecules. <i>Nature Communications</i> , <b>2014</b> , 5, 4302	17.4	138
161	Direct imaging of single Au atoms within GaAs nanowires. <i>Nano Letters</i> , <b>2012</b> , 12, 2352-6	11.5	129
160	Hybrid nanoscale inorganic cages. <i>Nature Materials</i> , <b>2010</b> , 9, 810-5	27	119
159	A Mechanistic Study of Phase Transformation in Perovskite Nanocrystals Driven by Ligand Passivation. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 84-93	9.6	107
158	Line Defects in Molybdenum Disulfide Layers. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 10842-10848	3.8	105
157	Formation and Analysis of Core/Shell Fine Structures in Pt Bimetallic Nanoparticle Fuel Cell Electrocatalysts. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 19073-19083	3.8	97
156	Intrinsic microcrystalline silicon prepared by hot-wire chemical vapour deposition for thin film solar cells. <i>Thin Solid Films</i> , <b>2003</b> , 430, 202-207	2.2	93
155	Tunable porous nanoallotropes prepared by post-assembly etching of binary nanoparticle superlattices. <i>Science</i> , <b>2017</b> , 358, 514-518	33.3	92

154	Controllable atomic scale patterning of freestanding monolayer graphene at elevated temperature. <i>ACS Nano</i> , <b>2013</b> , 7, 1566-72	16.7	90
153	On the benefit of the negative-spherical-aberration imaging technique for quantitative HRTEM. <i>Ultramicroscopy</i> , <b>2010</b> , 110, 500-505	3.1	85
152	Resolution and aberration correction in liquid cell transmission electron microscopy. <i>Nature Reviews Materials</i> , <b>2019</b> , 4, 61-78	73.3	83
151	Cryo-scanning transmission electron tomography of vitrified cells. <i>Nature Methods</i> , <b>2014</b> , 11, 423-8	21.6	82
150	Atomic-precision determination of the reconstruction of a 90 degree tilt boundary in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> by aberration corrected HRTEM. <i>Ultramicroscopy</i> , <b>2006</b> , 106, 200-14	3.1	82
149	Negative spherical aberration ultrahigh-resolution imaging in corrected transmission electron microscopy. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2009</b> , 367, 3735-53	3	76
148	Surface-Guided CsPbBr Perovskite Nanowires on Flat and Faceted Sapphire with Size-Dependent Photoluminescence and Fast Photoconductive Response. <i>Nano Letters</i> , <b>2018</b> , 18, 424-433	11.5	76
147	Atom by atom: HRTEM insights into inorganic nanotubes and fullerene-like structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 15643-8	11.5	66
146	Rapid low dose electron tomography using a direct electron detection camera. <i>Scientific Reports</i> , <b>2015</b> , 5, 14516	4.9	61
145	Toward atomic-scale bright-field electron tomography for the study of fullerene-like nanostructures. <i>Nano Letters</i> , <b>2008</b> , 8, 891-6	11.5	60
144	MoS <sub>2</sub> hybrid nanostructures: from octahedral to quasi-spherical shells within individual nanoparticles. <i>Angewandte Chemie - International Edition</i> , <b>2011</b> , 50, 1810-4	16.4	56
143	Plastic-deformation mechanism in complex solids. <i>Nature Materials</i> , <b>2010</b> , 9, 332-6	27	55
142	Real-time molecular scale observation of crystal formation. <i>Nature Chemistry</i> , <b>2017</b> , 9, 369-373	17.6	54
141	Atomic structure and chemistry of dislocation cores at low-angle tilt grain boundary in SrTiO <sub>3</sub> bicrystals. <i>Acta Materialia</i> , <b>2015</b> , 89, 344-351	8.4	49
140	Microcrystalline silicon carbide alloys prepared with HWCVD as highly transparent and conductive window layers for thin film solar cells. <i>Thin Solid Films</i> , <b>2009</b> , 517, 3507-3512	2.2	47
139	Low substrate temperature deposition of crystalline SiC using HWCVD. <i>Thin Solid Films</i> , <b>2006</b> , 501, 169-172		46
138	Nanotubes from Misfit Layered Compounds: A New Family of Materials with Low Dimensionality. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 3724-36	6.4	44
137	Correlating electron tomography and plasmon spectroscopy of single noble metal core-shell nanoparticles. <i>Nano Letters</i> , <b>2012</b> , 12, 145-50	11.5	44

136	Large lattice distortions and size-dependent bandgap modulation in epitaxial halide perovskite nanowires. <i>Nature Communications</i> , <b>2020</b> , 11, 489	17.4	43
135	Hollow V(2)O(5) nanoparticles (fullerene-like analogues) prepared by laser ablation. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 11214-22	16.4	43
134	Atomic structure of the interface between SrTiO3 thin films and Si(001) substrates. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 101913	3.4	43
133	NiWSe2 nanostructures as efficient catalysts for electrochemical hydrogen evolution reaction (HER) in acidic and alkaline media. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 1403-1416	13	43
132	Probing the local nature of excitons and plasmons in few-layer MoS2. <i>Npj 2D Materials and Applications</i> , <b>2017</b> , 1,	8.8	41
131	Polarity-driven polytypic branching in cu-based quaternary chalcogenide nanostructures. <i>ACS Nano</i> , <b>2014</b> , 8, 2290-301	16.7	41
130	Designing Bimetallic Co-Catalysts: A Party of Two. <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 3760-4	6.4	40
129	Diffraction from Disordered Stacking Sequences in MoS2 and WS2 Fullerenes and Nanotubes. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 24350-24357	3.8	40
128	Refinement procedure for the image alignment in high-resolution electron tomography. <i>Ultramicroscopy</i> , <b>2011</b> , 111, 1512-20	3.1	38
127	The golden gate to photocatalytic hydrogen production. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 19679-19683	13.7	37
126	Nanotubes from chalcogenide misfit compounds: Sn-S and Nb-Pb-S. <i>Accounts of Chemical Research</i> , <b>2014</b> , 47, 406-16	24.3	36
125	FEI Titan G3 50-300 PICO. <i>Journal of Large-scale Research Facilities JLSRF</i> , 1,		35
124	Effect of filament and substrate temperatures on the structural and electrical properties of SiC thin films grown by the HWCVD technique. <i>Thin Solid Films</i> , <b>2008</b> , 516, 622-625	2.2	34
123	Cu2S/MoS2 Nano-Octahedra at the Atomic Scale: Using a Template To Activate the Basal Plane of MoS2 for Hydrogen Production. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 4489-4492	9.6	34
122	Atomic-Scale Imaging and Quantification of Electrical Polarisation in Incommensurate Antiferroelectric Lanthanum-Doped Lead Zirconate Titanate. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 261-266	15.6	33
121	Large-Velocity Saturation in Thin-Film Black Phosphorus Transistors. <i>ACS Nano</i> , <b>2018</b> , 12, 5003-5010	16.7	32
120	Catalyst Composition, Morphology and Reaction Pathway in the Growth of Super-Long Carbon Nanotubes. <i>ChemCatChem</i> , <b>2010</b> , 2, 1069-1073	5.2	32
119	Illumination effects in holographic imaging of the electrostatic potential of defects and pn junctions in transmission electron microscopy. <i>Physical Review B</i> , <b>2004</b> , 70,	3.3	32

118	Microstructure of highly crystalline silicon carbide thin films grown by HWCVD technique. <i>Thin Solid Films</i> , <b>2008</b> , 516, 618-621	2.2	31
117	New high-temperature Pb-catalyzed synthesis of inorganic nanotubes. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 16379-86	16.4	30
116	Microcrystalline silicon deposition: Process stability and process control. <i>Thin Solid Films</i> , <b>2007</b> , 515, 7455-7459	5.3	30
115	Improvement of open circuit voltage in microcrystalline silicon solar cells using hot wire buffer layers. <i>Journal of Non-Crystalline Solids</i> , <b>2006</b> , 352, 1859-1862	3.9	30
114	Microcrystalline silicon carbide window layers in thin film silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2012</b> , 98, 370-378	6.4	29
113	StripeSTEM, a technique for the isochronous acquisition of high angle annular dark-field images and monolayer resolved electron energy loss spectra. <i>Ultramicroscopy</i> , <b>2009</b> , 109, 1447-52	3.1	28
112	Light-induced modification of a-SiO <sub>x</sub> II: Laser crystallization. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 4060-4068	1.6	28
111	From dilute isovalent substitution to alloying in CdSeTe nanoplatelets. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 15295-303	3.6	28
110	A mechanism of ferritin crystallization revealed by cryo-STEM tomography. <i>Nature</i> , <b>2020</b> , 579, 540-543	50.4	27
109	Deposition of highly efficient microcrystalline silicon solar cells under conditions of low H <sub>2</sub> dilution: the role of the transient depletion induced incubation layer. <i>Progress in Photovoltaics: Research and Applications</i> , <b>2007</b> , 15, 291-301	6.8	26
108	Paramagnetic Metal-Ion Dopants as Polarization Agents for Dynamic Nuclear Polarization NMR Spectroscopy in Inorganic Solids. <i>ChemPhysChem</i> , <b>2018</b> , 19, 2139-2142	3.2	26
107	Nanoseashells and Nanooctahedra of MoS <sub>2</sub> : Routes to Inorganic Fullerenes. <i>Chemistry of Materials</i> , <b>2009</b> , 21, 5627-5636	9.6	25
106	Geometric reconstruction methods for electron tomography. <i>Ultramicroscopy</i> , <b>2013</b> , 128, 42-54	3.1	24
105	Vacuum Rabi splitting of a dark plasmonic cavity mode revealed by fast electrons. <i>Nature Communications</i> , <b>2020</b> , 11, 487	17.4	24
104	Emergence of chirality and structural complexity in single crystals at the molecular and morphological levels. <i>Nature Communications</i> , <b>2020</b> , 11, 380	17.4	23
103	Atom vacancies at a screw dislocation core in SrTiO <sub>3</sub> . <i>Philosophical Magazine Letters</i> , <b>2006</b> , 86, 683-690	1	23
102	Understanding the formation mechanism and the 3D structure of Mo(S <sub>x</sub> Se <sub>1-x</sub> ) <sub>2</sub> nanoflowers. <i>RSC Advances</i> , <b>2015</b> , 5, 88108-88114	3.7	22
101	Structural properties of microcrystalline SiC deposited at low substrate temperatures by HWCVD. <i>Journal of Non-Crystalline Solids</i> , <b>2006</b> , 352, 1376-1379	3.9	22

100	Elemental mapping in achromatic atomic-resolution energy-filtered transmission electron microscopy. <i>Ultramicroscopy</i> , <b>2014</b> , 147, 98-105	3.1	21
99	Electrostatic co-assembly of nanoparticles with oppositely charged small molecules into static and dynamic superstructures. <i>Nature Chemistry</i> , <b>2021</b> , 13, 940-949	17.6	21
98	Lanthanide-based functional misfit-layered nanotubes. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 6920-4	16.4	20
97	Intermixing and charge neutrality at DyScO <sub>3</sub> /SrTiO <sub>3</sub> interfaces. <i>Acta Materialia</i> , <b>2009</b> , 57, 3192-3198	8.4	20
96	Metadislocations in the structurally complex orthorhombic alloy Al <sub>13</sub> Co <sub>4</sub> . <i>Philosophical Magazine</i> , <b>2008</b> , 88, 2333-2338	1.6	20
95	Growth-Etch Metal-Organic Chemical Vapor Deposition Approach of WS Atomic Layers. <i>ACS Nano</i> , <b>2021</b> , 15, 526-538	16.7	20
94	Growth Mechanisms and Electronic Properties of Vertically Aligned MoS <sub>2</sub> . <i>Scientific Reports</i> , <b>2018</b> , 8, 16480	9	20
93	Synthesis of core-shell single-layer MoS <sub>2</sub> sheathing gold nanoparticles, AuNP@1L-MoS <sub>2</sub> . <i>Nanotechnology</i> , <b>2017</b> , 28, 24LT03	3.4	19
92	Detection of isolated protein-bound metal ions by single-particle cryo-STEM. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 11139-11144	11.5	19
91	Tubular structures from the LnS <sub>2</sub> As <sub>2</sub> (Ln = La, Ce, Nd, Ho, Er) and LaSe <sub>2</sub> As <sub>2</sub> misfit layered compounds. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 89-98	7.1	19
90	Atomic-scale measurement of structure and chemistry of a single-unit-cell layer of LaAlO <sub>3</sub> embedded in SrTiO <sub>3</sub> . <i>Microscopy and Microanalysis</i> , <b>2013</b> , 19, 310-8	0.5	19
89	Investigation of Rhenium-Doped MoS <sub>2</sub> Nanoparticles with Fullerene-Like Structure. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , <b>2012</b> , 638, 2610-2616	1.3	19
88	Meandering of the grain boundary and d-wave effects in high-T <sub>c</sub> bicrystal Josephson junctions. <i>Superconductor Science and Technology</i> , <b>2006</b> , 19, S195-S199	3.1	19
87	Spherical-aberration correction in tandem with the restoration of the exit-plane wavefunction: synergetic tools for the imaging of lattice imperfections in crystalline solids at atomic resolution. <i>Journal of Materials Science</i> , <b>2006</b> , 41, 4420-4433	4.3	19
86	Microtwinning in microcrystalline silicon and its effect on grain-size measurements. <i>Physical Review B</i> , <b>2003</b> , 67,	3.3	19
85	Stability of Seeded Rod Photocatalysts: Atomic Scale View. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 1546-1552	9.6	18
84	Observation of breathing-like modes in an individual multiwalled carbon nanotube. <i>Nano Letters</i> , <b>2010</b> , 10, 4470-4	11.5	18
83	Magnetic and structural properties of GaN thin layers implanted with Mn, Cr, or V ions. <i>Journal of Applied Physics</i> , <b>2004</b> , 96, 5663-5667	2.5	18

82	Nanocomposite thin films for miniaturized multi-layer ceramic capacitors prepared from barium titanate nanoparticle based hybrid solutions. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 7953		17
81	Atomic surface reduction of interfaces utilizing vapor phase approach: High energy LiNi <sub>x</sub> MnyCoz oxide as a test case. <i>Energy Storage Materials</i> , <b>2019</b> , 19, 261-269	19.4	17
80	Inside-Out: The Role of Buried Interfaces in Hybrid Cu <sub>2</sub> ZnSnS <sub>4</sub> Noble Metal Photocatalysts. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 7062-7068	3.8	16
79	Aberration-corrected transmission electron microscopy analyses of GaAs/Si interfaces in wafer-bonded multi-junction solar cells. <i>Ultramicroscopy</i> , <b>2013</b> , 134, 55-61	3.1	16
78	Growth of microcrystalline nip Si solar cells: role of local epitaxy. <i>Journal of Non-Crystalline Solids</i> , <b>2002</b> , 299-302, 1189-1193	3.9	16
77	High spatially resolved cation concentration profile at the grain boundaries of Sc-doped BaZrO <sub>3</sub> . <i>Solid State Ionics</i> , <b>2014</b> , 262, 860-864	3.3	15
76	Characterization of laser-fired contacts in PERC solar cells: SIMS and TEM analysis applying advanced preparation techniques. <i>Applied Surface Science</i> , <b>2006</b> , 252, 7082-7085	6.7	15
75	Analysis of dopant atom distribution and quantification of oxygen vacancies on individual Gd-doped CeO <sub>2</sub> nanocrystals. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 6288-93	4.8	14
74	Atomic-scale evolution of a growing core-shell nanoparticle. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 12564-7	16.4	14
73	Cryo-scanning transmission electron tomography of biological cells. <i>MRS Bulletin</i> , <b>2016</b> , 41, 542-548	3.2	14
72	Growth Schemes of Tunable Ultrathin CdS <sub>x</sub> Se <sub>1-x</sub> Alloyed Nanostructures at Low Temperatures. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 10734-10739	3.8	13
71	Guided Growth of Horizontal ZnS Nanowires on Flat and Faceted Sapphire Surfaces. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 12413-12420	3.8	13
70	Inorganic WS <sub>2</sub> nanotubes revealed atom by atom using ultra-high-resolution transmission electron microscopy. <i>Applied Physics A: Materials Science and Processing</i> , <b>2009</b> , 96, 343-348	2.6	12
69	Metal-Coordination-Induced Fusion Creates Hollow Crystalline Molecular Superstructures. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 9132-9139	16.4	12
68	Chiral and SHG-Active Metal-Organic Frameworks Formed in Solution and on Surfaces: Uniformity, Morphology Control, Oriented Growth, and Postassembly Functionalization. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 14210-14221	16.4	11
67	Advanced tomography techniques for inorganic, organic, and biological materials. <i>MRS Bulletin</i> , <b>2016</b> , 41, 516-521	3.2	11
66	Inducing Defects in F-Nanocrystals Provides Paramagnetic-free Relaxation Enhancement for Improved Hotspot MRI. <i>Nano Letters</i> , <b>2020</b> , 20, 7207-7212	11.5	11
65	Nanotubes from the Misfit Compound Alloy LaS-NbxTa(1-x)S <sub>2</sub> . <i>Chemistry of Materials</i> , <b>2018</b> , 30, 8829-8842	3.6	11



64	Hidden parameters in the plasma deposition of microcrystalline silicon solar cells. <i>Journal of Materials Research</i> , <b>2007</b> , 22, 1767-1774	2.5	10
63	Epitaxial growth of In <sub>2</sub> Se <sub>3</sub> on monolayer transition metal dichalcogenide single crystals for high performance photodetectors. <i>Applied Materials Today</i> , <b>2020</b> , 20, 100734	6.6	9
62	Synthesis and Characterization of Nanotubes from Misfit (LnS) TaS (Ln=Pr, Sm, Gd, Yb) Compounds. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 11354-11363	4.8	9
61	Solution phase synthesis of homogeneously alloyed ultrathin CdS <sub>x</sub> Se <sub>1-x</sub> nanosheets. <i>RSC Advances</i> , <b>2014</b> , 4, 49842-49845	3.7	9
60	Metadislocations in the complex metallic alloys TiAlMn(Pd, Fe). <i>Acta Materialia</i> , <b>2011</b> , 59, 4458-4466	8.4	9
59	Stability Criteria of Fullerene-like Nanoparticles: Comparing V <sub>0</sub> to Layered Metal Dichalcogenides and Dihalides. <i>Materials</i> , <b>2010</b> , 3, 4428-4445	3.5	9
58	Atomic-resolution imaging of lattice imperfections in semiconductors by combined aberration-corrected HRTEM and exit-plane wavefunction retrieval. <i>Philosophical Magazine</i> , <b>2006</b> , 86, 4589-4606	1.6	9
57	Oxygen Vacancy Distribution in Yttrium-Doped Ceria from Y-Y Correlations via Dynamic Nuclear Polarization Solid-State NMR. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 2964-2969	6.4	9
56	Studies of local structural distortions in strained ultrathin BaTiO <sub>3</sub> films using scanning transmission electron microscopy. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 740-7	0.5	8
55	Spatial resolution and radiation damage in quantitative high-resolution STEM-EEL spectroscopy in oxides. <i>Micron</i> , <b>2012</b> , 43, 532-537	2.3	8
54	MoS <sub>2</sub> Hybrid Nanostructures: From Octahedral to Quasi-Spherical Shells within Individual Nanoparticles. <i>Angewandte Chemie</i> , <b>2011</b> , 123, 1850-1854	3.6	8
53	Defects induced on chemical vapour deposition carbon nanotubes during peapod synthesis on substrates. <i>Nanotechnology</i> , <b>2009</b> , 20, 065603	3.4	8
52	Microstructure of thick chromium nitride coating synthesized using plasma assisted MOCVD technique. <i>Surface and Coatings Technology</i> , <b>2006</b> , 201, 1401-1408	4.4	8
51	Glyconanofluorides as Immunotracers with a Tunable Core Composition for Sensitive Hotspot Magnetic Resonance Imaging of Inflammatory Activity. <i>ACS Nano</i> , <b>2021</b> , 15, 7563-7574	16.7	8
50	3D mapping of native extracellular matrix reveals cellular responses to the microenvironment. <i>Journal of Structural Biology: X</i> , <b>2019</b> , 1, 100002	2.9	8
49	In situ NMR reveals real-time nanocrystal growth evolution via monomer-attachment or particle-coalescence. <i>Nature Communications</i> , <b>2021</b> , 12, 229	17.4	8
48	Lanthanide-Based Functional Misfit-Layered Nanotubes. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 7040-7044	3.6	7
47	Bright-field electron tomography of individual inorganic fullerene-like structures. <i>Nanoscale</i> , <b>2010</b> , 2, 423-8	7.7	7



46	Aberration-corrected HRTEM of defects in strained La <sub>2</sub> CuO <sub>4</sub> thin films grown on SrTiO <sub>3</sub> . <i>Journal of Materials Science</i> , <b>2006</b> , 41, 4413-4419	4.3	7
45	Connection between hydrogen plasma treatment and etching of amorphous phase in the layer-by-layer technique with very high frequency plasma excitation. <i>Journal of Applied Physics</i> , <b>1999</b> , 85, 2991-2993	2.5	7
44	Seeded Rods with Ag and Pd Bimetallic Tips Spontaneous Rearrangements of the Nanoalloys on the Atomic Scale. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 7231-7237	9.6	6
43	Opportunities for Chromatic Aberration Corrected High-Resolution Transmission Electron Microscopy, Lorentz Microscopy and Electron Holography of Magnetic Minerals. <i>Microscopy and Microanalysis</i> , <b>2012</b> , 18, 1708-1709	0.5	6
42	Guest Transition Metals in Host Inorganic Nanocapsules: Single Sites, Discrete Electron Transfer, and Atomic Scale Structure. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 14504-14512	16.4	6
41	Complex morphologies of biogenic crystals emerge from anisotropic growth of symmetry-related facets.. <i>Science</i> , <b>2022</b> , 376, 312-316	33.3	6
40	The effects of sample conductivity on the efficacy of dynamic nuclear polarization for sensitivity enhancement in solid state NMR spectroscopy. <i>Solid State Nuclear Magnetic Resonance</i> , <b>2019</b> , 99, 7-14	3.1	5
39	Revealing Growth Schemes of Nanoparticles in Atomic Resolution: Mapping Stacking Fault Formation and Distribution. <i>Crystal Growth and Design</i> , <b>2015</b> , 15, 3114-3118	3.5	5
38	Covalent functionalization of carbon nanotubes with tetramanganese complexes. <i>Physica Status Solidi (B): Basic Research</i> , <b>2012</b> , 249, 2412-2415	1.3	5
37	Assessment of a nanocrystal 3-D morphology by the analysis of single HAADF-HRSTEM images. <i>Nanoscale Research Letters</i> , <b>2013</b> , 8, 475	5	5
36	Continuum Crystallization Model Derived from Pharmaceutical Crystallization Mechanisms. <i>ACS Central Science</i> , <b>2021</b> , 7, 900-908	16.8	5
35	Molecular cannibalism: Sacrificial materials as precursors for hollow and multidomain single crystals. <i>Nature Communications</i> , <b>2021</b> , 12, 957	17.4	5
34	Toward Compositional Contrast by Cryo-STEM. <i>Accounts of Chemical Research</i> , <b>2021</b> , 54, 3621-3631	24.3	5
33	Synthesis and Characterization of Pb@GaS Core-Shell Fullerene-Like Nanoparticles and Nanotubes. <i>Nano</i> , <b>2017</b> , 12, 1750030	1.1	4
32	Nickel phosphide catalysts for hydrogen generation through water reduction, ammonia-borane and borohydride hydrolysis. <i>Applied Materials Today</i> , <b>2020</b> , 20, 100693	6.6	4
31	Comprehensive characterization of an individual carbon nanotube transport device. <i>Physica Status Solidi (B): Basic Research</i> , <b>2011</b> , 248, 2660-2663	1.3	4
30	Structural properties of microcrystalline silicon-germanium films. <i>Philosophical Magazine Letters</i> , <b>1999</b> , 79, 71-78	1	4
29	All-Solid-State Electro-Chemo-Mechanical Actuator Operating at Room Temperature. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2006712	15.6	4

28	Asymmetric misfit nanotubes: Chemical affinity outwits the entropy at high-temperature solid-state reactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	4
27	Nanotubes from Ternary WS <sub>2</sub> (1-x)Se <sub>2x</sub> Alloys: Stoichiometry Modulated Tunable Optical Properties. <i>Journal of the American Chemical Society</i> ,	16.4	4
26	STEM Tomography in Biology <b>2018</b> , 33-60		3
25	The effect of atomic disorder at the core-shell interface on stacking fault formation in hybrid nanoparticles. <i>Nanoscale</i> , <b>2016</b> , 8, 17568-17572	7.7	3
24	Nanoscale x-ray investigation of magnetic metallofullerene peapods. <i>Nanotechnology</i> , <b>2017</b> , 28, 435703	3.4	3
23	Oriented Attachment of 2D Nanosheets: The Case of Few-Layer Bi <sub>2</sub> Se <sub>3</sub> . <i>Chemistry of Materials</i> , <b>2021</b> , 33, 7558-7565	9.6	3
22	Orienting MoS <sub>2</sub> flakes into ordered films. <i>Journal of Materials Science</i> , <b>2014</b> , 49, 7353-7359	4.3	2
21	Study Using Low-loss EELS to Compare Properties of TMDs Produced by Mechanical and Liquid Phase Exfoliation. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 1475-1476	0.5	2
20	Controlled covalent binding of antiferromagnetic tetramanganese complexes to carbon nanotubes. <i>RSC Advances</i> , <b>2015</b> , 5, 84119-84124	3.7	2
19	Atomic-Resolution Aberration-Corrected Transmission Electron Microscopy. <i>Advances in Imaging and Electron Physics</i> , <b>2008</b> , 153, 439-480	0.2	2
18	Nanotubes from the Misfit Layered Compound (SmS)TaS: Atomic Structure, Charge Transfer, and Electrical Properties.. <i>Chemistry of Materials</i> , <b>2022</b> , 34, 1838-1853	9.6	2
17	Microscopy of Semiconducting Materials 2003		2
16	Unusual Surface Texture, Dimensions and Morphology Variations of Chiral and Single Crystals*. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 18256-18264	16.4	2
15	Analyses of Interfaces in Wafer-Bonded Tandem Solar Cells by Aberration-Corrected STEM and EELS. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 456-457	0.5	1
14	Strain-induced shift of the crystal-field splitting of SrTiO <sub>3</sub> embedded in scandate multilayers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2011</b> , 3, 1545-51	9.5	1
13	Strategies for Aberration Control in Sub-Angstrom HRTEM. <i>Microscopy and Microanalysis</i> , <b>2005</b> , 11,	0.5	1
12	Flexible STEM with Simultaneous Phase and Depth Contrast. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 1-12	0.5	1
11	Metallic Nanocrystal Ripening on Inorganic Surfaces. <i>ACS Omega</i> , <b>2018</b> , 3, 6533-6539	3.9	1

10	Ultrahigh-Resolution Transmission Electron Microscopy at Negative Spherical Aberration	81-107	1
9	Halide perovskite dynamics at work: Large cations at 2D-on-3D interfaces are mobile.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2022</b> , 119, e2114740119		11.5 1
8	Cation-Ligand Complexation Mediates the Temporal Evolution of Colloidal Fluoride Nanocrystals through Transient Aggregation. <i>Nano Letters</i> , <b>2021</b> , 21, 9916-9921		11.5 0
7	Unusual Surface Texture, Dimensions and Morphology Variations of Chiral and Single Crystals**. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 18404-18412		3.6 0
6	Improving the quality factors of plasmonic silver cavities for strong coupling with quantum emitters. <i>Journal of Chemical Physics</i> , <b>2021</b> , 154, 014703		3.9 0
5	Atomic Scale Compositions Across DyScO <sub>3</sub> /SrTiO <sub>3</sub> Interfaces. <i>Microscopy and Microanalysis</i> , <b>2009</b> , 15, 1012-1013		0.5
4	Aberration-Corrected HRTEM of Defects in Strained Lanthanum Cuprate Thin Films Grown on Strontium Titanate. <i>Microscopy and Microanalysis</i> , <b>2006</b> , 12, 1474-1475		0.5
3	Pathway-Dependent Coordination Networks: Crystals versus Films. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 16913-16918		16.4
2	Applications of Momentum-resolved Scanning Transmission Electron Microscopy for Cryo-preserved Radiation Sensitive Materials. <i>Microscopy and Microanalysis</i> , <b>2020</b> , 26, 1492-1492		0.5
1	Noncovalent Bonding Caught in Action: From Amorphous to Cocrystalline Molecular Thin Films. <i>ACS Nano</i> , <b>2021</b> , 15, 14643-14652		16.7