

Felix Lehmkühler

List of Publications by Year in descending order

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57
papers

1,380
citations

393982

19
h-index

360668

35
g-index

59
all docs

59
docs citations

59
times ranked

1764
citing authors

#	ARTICLE	IF	CITATIONS
1	Diffusive dynamics during the high-to-low density transition in amorphous ice. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8193-8198.	3.3	155
2	Single Shot Spatial and Temporal Coherence Properties of the SLAC Linac Coherent Light Source in the Hard X-Ray Regime. Physical Review Letters, 2012, 108, 024801.	2.9	115
3	Single Shot Coherence Properties of the Free-Electron Laser SACLA in the Hard X-ray Regime. Scientific Reports, 2014, 4, 5234.	1.6	69
4	The Carbon Dioxide-Water Interface at Conditions of Gas Hydrate Formation. Journal of the American Chemical Society, 2009, 131, 585-589.	6.6	66
5	Coherent X-rays reveal the influence of cage effects on ultrafast water dynamics. Nature Communications, 2018, 9, 1917.	5.8	59
6	Structural order in plasmonic superlattices. Nature Communications, 2020, 11, 3821.	5.8	56
7	Towards ultrafast dynamics with split-pulse X-ray photon correlation spectroscopy at free electron laser sources. Nature Communications, 2018, 9, 1704.	5.8	55
8	Tetrahydrofuran Clathrate Hydrate Formation. Physical Review Letters, 2009, 103, 218301.	2.9	50
9	Correlated heterogeneous dynamics in glass-forming polymers. Physical Review E, 2015, 91, 042309.	0.8	39
10	Single shot speckle and coherence analysis of the hard X-ray free electron laser LCLS. Optics Express, 2013, 21, 24647.	1.7	37
11	From Femtoseconds to Hours—Measuring Dynamics over 18 Orders of Magnitude with Coherent X-rays. Applied Sciences (Switzerland), 2021, 11, 6179.	1.3	36
12	Detecting orientational order in model systems by X-ray cross-correlation methods. Journal of Applied Crystallography, 2014, 47, 1315-1323.	1.9	31
13	Ligand Layer Engineering To Control Stability and Interfacial Properties of Nanoparticles. Langmuir, 2016, 32, 7897-7907.	1.6	31
14	Emergence of anomalous dynamics in soft matter probed at the European XFEL. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 24110-24116.	3.3	31
15	Sequential Single Shot X-ray Photon Correlation Spectroscopy at the SACLA Free Electron Laser. Scientific Reports, 2015, 5, 17193.	1.6	30
16	Monitoring Nanocrystal Self-Assembly in Real Time Using In Situ Small-Angle X-Ray Scattering. Small, 2019, 15, e1900438.	5.2	30
17	On the Spontaneous Formation of Clathrate Hydrates at Water-Guest Interfaces. Journal of Physical Chemistry C, 2012, 116, 8548-8553.	1.5	24
18	Recent Notable Approaches to Study Self-Assembly of Nanoparticles with X-Ray Scattering and Electron Microscopy. Particle and Particle Systems Characterization, 2021, 38, 2100087.	1.2	23

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19	Tuning the Interaction of Nanoparticles from Repulsive to Attractive by Pressure. <i>Journal of Physical Chemistry C</i> , 2016, 120, 19856-19861.	1.5	19
20	Anisotropic and heterogeneous dynamics in an aging colloidal gel. <i>Soft Matter</i> , 2020, 16, 2864-2872.	1.2	19
21	The barium giant dipole resonance in barite: a study of soft X-ray absorption edges using hard X-rays. <i>Journal of Analytical Atomic Spectrometry</i> , 2008, 23, 807.	1.6	18
22	Intramolecular structure and energetics in supercooled water down to 255 K. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 6925-6930.	1.3	18
23	Anomalous Dynamics of Concentrated Silica-PNIPAm Nanogels. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5231-5236.	2.1	18
24	Structure beyond pair correlations: X-ray cross-correlation from colloidal crystals. <i>Journal of Applied Crystallography</i> , 2016, 49, 2046-2052.	1.9	18
25	Dynamics of soft nanoparticle suspensions at hard X-ray FEL sources below the radiation-damage threshold. <i>IUCr</i> , 2018, 5, 801-807.	1.0	18
26	Structure and Stability of PEG-coated and Mixed PEG-coated Layer-coated Nanoparticles at High Particle Concentrations Studied In Situ by Small-Angle X-ray Scattering. <i>Particle and Particle Systems Characterization</i> , 2018, 35, 1700319.	1.2	17
27	Anomalous Energetics in Tetrahydrofuran Clathrate Hydrate Revealed by X-ray Compton Scattering. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 2832-2836.	2.1	16
28	Nano-beam X-ray microscopy of dried colloidal films. <i>Soft Matter</i> , 2015, 11, 5465-5472.	1.2	16
29	Coexistence of hcp and bct Phases during In Situ Superlattice Assembly from Faceted Colloidal Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 6331-6338.	2.1	15
30	Pressure-Stimulated Supercrystal Formation in Nanoparticle Suspensions. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4720-4724.	2.1	14
31	Microsecond hydrodynamic interactions in dense colloidal dispersions probed at the European XFEL. <i>IUCr</i> , 2021, 8, 775-783.	1.0	14
32	Heterogeneous local order in self-assembled nanoparticle films revealed by X-ray cross-correlations. <i>IUCr</i> , 2018, 5, 354-360.	1.0	14
33	Temperature-Induced Structural Changes of Tetrahydrofuran Clathrate and of the Liquid Water/Tetrahydrofuran Mixture. <i>Journal of Physical Chemistry C</i> , 2011, 115, 21009-21015.	1.5	12
34	The phase diagram of colloidal silica-PNIPAm core-shell nanogels. <i>Soft Matter</i> , 2020, 16, 466-475.	1.2	12
35	Colloidal crystallite suspensions studied by high pressure small angle x-ray scattering. <i>Journal of Chemical Physics</i> , 2016, 144, 084903.	1.2	11
36	Analysis Strategies for MHz XPCS at the European XFEL. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 8037.	1.3	11

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37	An <i>in situ</i> and real time study of the formation of CdSe NCs. <i>Nanoscale</i> , 2020, 12, 22928-22934.	2.8	11
38	X-ray spectroscopy with variable line spacing based on reflection zone plate optics. <i>Optics Letters</i> , 2018, 43, 4390.	1.7	10
39	Slowing down of dynamics and orientational order preceding crystallization in hard-sphere systems. <i>Science Advances</i> , 2020, 6, .	4.7	10
40	A liquid jet setup for x-ray scattering experiments on complex liquids at free-electron laser sources. <i>Review of Scientific Instruments</i> , 2016, 87, 063905.	0.6	9
41	Standing-wave excited photoemission experiments on Si/MoSi ₂ multilayer mirrors in the soft x-ray regime: An analytical modeling approach. <i>Journal of Applied Physics</i> , 2009, 106, 124906.	1.1	8
42	Microsecond Structural Rheology. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3581-3585.	2.1	8
43	Plasmonic Supercrystals with a Layered Structure Studied by a Combined TEM-SAXS-XCCA Approach. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000919.	1.9	8
44	Real-Time X-ray Scattering Discovers Rich Phase Behavior in PbS Nanocrystal Superlattices during <i>In Situ</i> Assembly. <i>Chemistry of Materials</i> , 2021, 33, 6553-6563.	3.2	8
45	A sample cell to study hydrate formation with x-ray scattering. <i>Review of Scientific Instruments</i> , 2009, 80, 026103.	0.6	7
46	The Ba 4d-4f giant dipole resonance in complex Ba/Si compounds. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2014, 47, 045102.	0.6	7
47	Temperature dependence of the hydrogen bond network in trimethylamine N-oxide and guanidine hydrochloride-water solutions. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 28470-28475.	1.3	7
48	Kinetics of pressure-induced nanocrystal superlattice formation. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 21349-21354.	1.3	7
49	Double-pulse speckle contrast correlations with near Fourier transform limited free-electron laser light using hard X-ray split-and-delay. <i>Scientific Reports</i> , 2020, 10, 5054.	1.6	7
50	In situ small-angle X-ray scattering environment for studying nanocrystal self-assembly upon controlled solvent evaporation. <i>Review of Scientific Instruments</i> , 2019, 90, 036103.	0.6	6
51	Shear-induced ordering in liquid microjets seen by x-ray cross correlation analysis. <i>Structural Dynamics</i> , 2020, 7, 054901.	0.9	5
52	Influence of TMAO as co-solvent on the gelation of silica-PNIPAm core-shell nanogels at intermediate volume fractions. <i>ChemPhysChem</i> , 2020, 21, 1318-1325.	1.0	5
53	Glass-liquid and glass-gel transitions of soft-shell particles. <i>Physical Review E</i> , 2021, 104, L012602.	0.8	5
54	Local orientational order in self-assembled nanoparticle films: the role of ligand composition and salt. <i>Journal of Applied Crystallography</i> , 2019, 52, 777-782.	1.9	5

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55	Supercrystal Formation of Gold Nanorods by High Pressure Stimulation. Journal of Physical Chemistry C, 2019, 123, 29994-30000.	1.5	4
56	Determination of microscopic interaction constants by X-ray reflectivity measurements. Fluid Phase Equilibria, 2008, 268, 95-99.	1.4	3
57	Concentration-Induced Wetting Transition in Water-Tetrahydrofuran-Isobutane Systems. Journal of Physical Chemistry C, 2011, 115, 18235-18238.	1.5	3