Markus Mezger

List of Publications by Year
in descending order

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70 papers	3,320 citations	147801 31 h-index	144013 57 g-index
71 all docs	71 docs citations	71 times ranked	4730 citing authors

#	Article	IF	Citations
1	Molecular Layering of Fluorinated Ionic Liquids at a Charged Sapphire (0001) Surface. Science, 2008, 322, 424-428.	12.6	576
2	High-resolution in situ x-ray study of the hydrophobic gap at the water-octadecyl-trichlorosilane interface. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 18401-18404.	7.1	252
3	Ferroelastic Fingerprints in Methylammonium Lead Iodide Perovskite. Journal of Physical Chemistry C, 2016, 120, 5724-5731.	3.1	154
4	Experimental and theoretical evidence for bilayer-by-bilayer surface melting of crystalline ice. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 227-232.	7.1	131
5	Layering of [BMIM]+-based ionic liquids at a charged sapphire interface. Journal of Chemical Physics, 2009, 131, 094701.	3.0	127
6	Bioinspired Actuated Adhesive Patterns of Liquid Crystalline Elastomers. Advanced Materials, 2012, 24, 4601-4604.	21.0	110
7	On the Origin of the Hydrophobic Water Gap: An X-ray Reflectivity and MD Simulation Study. Journal of the American Chemical Society, 2010, 132, 6735-6741.	13.7	103
8	Humidity-Induced Grain Boundaries in MAPbI₃ Perovskite Films. Journal of Physical Chemistry C, 2016, 120, 6363-6368.	3.1	103
9	Tuneable Transient Thermogels Mediated by a pHâ€•and Redoxâ€Regulated Supramolecular Polymerization. Angewandte Chemie - International Edition, 2017, 56, 15461-15465.	13.8	101
10	The Catalytic Effect of Fluoroalcohol Mixtures Depends on Domain Formation. ACS Catalysis, 2017, 7, 1846-1852.	11.2	98
11	Surface layering and melting in an ionic liquid studied by resonant soft X-ray reflectivity. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3733-3737.	7.1	97
12	Supramolecular Thiophene Nanosheets. Angewandte Chemie - International Edition, 2013, 52, 4845-4848.	13.8	81
13	Water and ice in contact with octadecyl-trichlorosilane functionalized surfaces: A high resolution x-ray reflectivity study. Journal of Chemical Physics, 2008, 128, 244705.	3.0	75
14	Decreasing the Alkyl Branch Frequency in Precision Polyethylene: Effect of Alkyl Branch Size on Nanoscale Morphology. Macromolecules, 2012, 45, 3367-3376.	4.8	66
15	Influence of chain topology on polymer crystallization: poly(ethylene oxide) (PEO) rings vs. linear chains. Soft Matter, 2016, 12, 8124-8134.	2.7	63
16	Isoprene/Styrene Tapered Multiblock Copolymers with up to Ten Blocks: Synthesis, Phase Behavior, Order, and Mechanical Properties. Macromolecules, 2018, 51, 10246-10258.	4.8	60
17	Molecular scale structure and dynamics at an ionic liquid/electrode interface. Faraday Discussions, 2017, 206, 141-157.	3.2	57
18	The Surface of Ice under Equilibrium and Nonequilibrium Conditions. Accounts of Chemical Research, 2019, 52, 1006-1015.	15.6	57

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19	Solid-liquid interfaces of ionic liquid solutionsâ€"Interfacial layering and bulk correlations. Journal of Chemical Physics, 2015, 142, 164707.	3.0	56
20	A modular approach towards functional supramolecular aggregates â€“ subtle structural differences inducing liquid crystallinity. Chemical Communications, 2016, 52, 8549-8552.	4.1	52
21	Dendritic Mesoporous Silica Nanoparticles for pHâ€Stimuliâ€Responsive Drug Delivery of TNFâ€Alpha. Advanced Healthcare Materials, 2017, 6, 1700012.	7.6	46
22	Effect of Polymer Architecture on the Ionic Conductivity. Densely Grafted Poly(ethylene oxide) Brushes Doped with LiTf. Macromolecules, 2016, 49, 2679-2687.	4.8	43
23	Outstanding Charge Mobility by Band Transport in Two-Dimensional Semiconducting Covalent Organic Frameworks. Journal of the American Chemical Society, 2022, 144, 7489-7496.	13.7	43
24	Molecular orientation in soft matter thin films studied by resonant soft x-ray reflectivity. Physical Review B, 2011, 83, .	3.2	42
25	Mesoscopic Correlation Functions in Heterogeneous Ionic Liquids. Journal of Physical Chemistry B, 2017, 121, 620-629.	2.6	42
26	Morphology and Thermal Properties of Precision Polymers: The Crystallization of Butyl Branched Polyethylene and Polyphosphoesters. Macromolecules, 2016, 49, 1321-1330.	4.8	38
27	Structureâ€"Property Relationships in Hydrogen-Bonded Liquid Crystals. Chemistry of Materials, 2017, 29, 8462-8471.	6.7	38
28	Surface induced smectic order in ionic liquids â€“ an X-ray reflectivity study of [C₂₂C₁im]⁺[NTf₂]^{â^'}. Physical Chemistry Chemical Physics, 2017, 19, 26651-26661.	2.8	37
29	Nanoscale Structure of Si/SiO₂/Organics Interfaces. ACS Nano, 2014, 8, 12676-12681.	14.6	36
30	Polymethacrylates with Polyhedral Oligomeric Silsesquioxane (POSS) Moieties: Influence of Spacer Length on Packing, Thermodynamics, and Dynamics. Macromolecules, 2015, 48, 3376-3385.	4.8	36
31	Ionic Conductivity, Self-Assembly, and Viscoelasticity in Poly(styrene-b-ethylene oxide) Electrolytes Doped with LiTf. Macromolecules, 2015, 48, 7164-7171.	4.8	34
32	Improving the mesomorphic behaviour of supramolecular liquid crystals by resonance-assisted hydrogen bonding. Journal of Materials Chemistry C, 2019, 7, 8643-8648.	5.5	27
33	Anisotropic carrier diffusion in single MAPbI3 grains correlates to their twin domains. Energy and Environmental Science, 2020, 13, 4168-4177.	30.8	27
34	Polymerized Ionic Liquids with Polythiophene Backbones: Self-Assembly, Thermal Properties, and Ion Conduction. Macromolecules, 2018, 51, 6440-6450.	4.8	25
35	Structure and Dynamics of Confined Liquids: Challenges and Perspectives for the X-ray Surface Forces Apparatus. Langmuir, 2019, 35, 16679-16692.	3.5	23
36	Temperature and concentration dependence of the effective pair interaction parameters in Ni-Pd from high-energy x-ray diffuse scattering. Physical Review B, 2006, 73, .	3.2	21

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37	Omega-like diffuse X-ray scattering in Tiâ€“V caused by static lattice distortions. Acta Materialia, 2008, 56, 1298-1305.	7.9	20
38	Interfacial premelting of ice in nano composite materials. Physical Chemistry Chemical Physics, 2019, 21, 3734-3741.	2.8	20
39	Radiation-Induced Premelting of Ice at Silica Interfaces. Physical Review Letters, 2009, 103, 095502.	7.8	18
40	Effect of Concentration on the Interfacial and Bulk Structure of Ionic Liquids in Aqueous Solution. Langmuir, 2018, 34, 2637-2646.	3.5	18
41	What Determines the Glass Temperature and dc-Conductivity in Imidazolium-Polymerized Ionic Liquids with a Polythiophene Backbone?. Macromolecules, 2020, 53, 3535-3550.	4.8	18
42	A spin-echo resolved grazing incidence scattering setup for the neutron interrogation of buried nanostructures. Review of Scientific Instruments, 2009, 80, 123903.	1.3	17
43	Comment on â€œHow Water Meets a Very Hydrophobic Surfaceâ€• Physical Review Letters, 2011, 107, 249801; author reply 249802.	7.8	17
44	On the impact of linking groups in hydrogen-bonded liquid crystals â€“ a case study. Soft Matter, 2018, 14, 6214-6221.	2.7	17
45	Interaction of a Patterned Amphiphilic Polyphenylene Dendrimer with a Lipid Monolayer: Electrostatic Interactions Dominate. Langmuir, 2015, 31, 1980-1987.	3.5	16
46	Layer with reduced viscosity at water-oil interfaces probed by fluorescence correlation spectroscopy. Physical Review E, 2013, 87, 012403.	2.1	14
47	Alteration of the structural properties of inulin gels. Food Hydrocolloids, 2019, 89, 302-310.	10.7	14
48	Insights into the structural, thermal, crystalline and rheological behavior of various hydrothermally modified elephant foot yam (Amorphophallus paeoniifolius) starch. Food Hydrocolloids, 2022, 129, 107672.	10.7	14
49	Salt-induced microheterogeneities in binary liquid mixtures. Physical Review E, 2017, 96, 022603.	2.1	13
50	Synthesis of Precision Poly(1,3-adamantylene alkylene)s via Acyclic Diene Metathesis Polycondensation. Macromolecules, 2019, 52, 4483-4491.	4.8	13
51	Controlling the crystal structure of precisely spaced polyethylene-like polyphosphoesters. Polymer Chemistry, 2020, 11, 3404-3415.	3.9	13
52	Single-crystal I _h ice surfaces unveil connection between macroscopic and molecular structure. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5349-5354.	7.1	12
53	Photo-switching and -cyclisation of hydrogen bonded liquid crystals based on resveratrol. Chemical Communications, 2020, 56, 1105-1108.	4.1	12
54	Water Mobility in the Interfacial Liquid Layer of Ice/Clay Nanocomposites. Angewandte Chemie - International Edition, 2021, 60, 7697-7702.	13.8	11

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55	Structure and dynamics of ionic liquids: general discussion. Faraday Discussions, 2018, 206, 291-337.	3.2	8
56	Phase behaviour and thermodynamics: general discussion. Faraday Discussions, 2017, 206, 113-139.	3.2	8
57	Redoxâ€Responsive and Thermoresponsive Supramolecular Nanosheet Gels with High Young's Moduli. Macromolecular Rapid Communications, 2018, 39, e1800282.	3.9	8
58	Self-templated synthesis of novel carbon nanoarchitectures for efficient electrocatalysis. Scientific Reports, 2016, 6, 28049.	3.3	7
59	Formation of Oriented Polar Crystals in Bulk Poly(vinylidene fluoride)/High-Aspect-Ratio Organoclay Nanocomposites. Langmuir, 2018, 34, 13375-13386.	3.5	5
60	Vitamin C Loaded Polyethylene: Synthesis and Properties of Precise Polyethylene with Vitamin C Defects via Acyclic Diene Metathesis Polycondensation. Macromolecules, 2020, 53, 2932-2941.	4.8	5
61	Naturally occurring polyphenols as building blocks for supramolecular liquid crystals â€“ substitution pattern dominates mesomorphism. Molecular Systems Design and Engineering, 2021, 6, 390-397.	3.4	5
62	Recrystallization upon solvent vapor annealing and impact of polymer crystallinity on hole transport in poly(3-hexylthiophene):small molecule blends. Molecular Systems Design and Engineering, 2020, 5, 1417-1427.	3.4	4
63	Impact of Surface Chemistry and Doping Concentrations on Biofunctionalization of GaN/Gaâ€'Inâ€'N Quantum Wells. Sensors, 2020, 20, 4179.	3.8	3
64	Complex coacervation of food grade antimicrobial lauric arginate with lambda carrageenan. Current Research in Food Science, 2021, 4, 53-62.	5.8	3
65	Predicting the Supramolecular Assembly of Amphiphilic Peptides from Comprehensive Coarse-Grained Simulations. ACS Applied Polymer Materials, 2022, 4, 822-831.	4.4	3
66	Cohesion Gain Induced by Nanosilica Consolidants for Monumental Stone Restoration. Langmuir, 2022, 38, 6949-6958.	3.5	2
67	Mesocrystalline architecture in hyaline foraminifer shells indicates a nonâ€classical crystallisation pathway. Geochemistry, Geophysics, Geosystems, 0, , .	2.5	2
68	WassermobilitÃt in der grenzflÃcheninduzierten Schmelzschicht von Eis/Tonmineralâ€Nanokompositen. Angewandte Chemie, 2021, 133, 7775-7781.	2.0	1
69	Ionic liquids at interfaces: general discussion. Faraday Discussions, 2018, 206, 549-586.	3.2	0
70	Anisotropic Charge Carrier Diffusion Correlated to Ferroelastic Twin Domains in MAPbI3 Perovskite. , 0, , .		0