and Ilona Kretzschmar

List of Publications by Year
in descending order

82 papers	4,667 citations	136950 32 h-index	95266 68 g-index
86 all docs	86 docs citations	86 times ranked	4401 citing authors

#	Article	IF	Citations
1	Topological Transitions in Metamaterials. Science, 2012, 336, 205-209.	12.6	734
2	Inelastic Electron Tunneling Spectroscopy of an Alkanedithiol Self-Assembled Monolayer. Nano Letters, 2004, 4, 643-646.	9.1	364
3	Macromol. Rapid Commun. 2/2010. Macromolecular Rapid Communications, 2010, 31, .	3.9	360
4	Fabrication, Assembly, and Application of Patchy Particles. Macromolecular Rapid Communications, 2010, 31, 150-168.	3.9	358
5	Patchy Particles by Glancing Angle Deposition. Langmuir, 2008, 24, 355-358.	3.5	212
6	Multifunctional Patchy Particles by Glancing Angle Deposition. Langmuir, 2009, 25, 9057-9063.	3.5	149
7	Effects of Sequential Ligation of Molybdenum Cation by Chalcogenides on Electronic Structure and Gas-Phase Reactivityâ€. Journal of Physical Chemistry A, 1997, 101, 6252-6264.	2.5	138
8	Platinum Dioxide Cation:Â Easy to Generate Experimentally but Difficult to Describe Theoretically. Journal of the American Chemical Society, 2001, 123, 142-147.	13.7	127
9	Programmed assembly of metallodielectric patchy particles in external AC electric fields. Soft Matter, 2010, 6, 1413.	2.7	124
10	Chromium Dioxide Cation OCrO+in the Gas Phase:Â Structure, Electronic States, and the Reactivity with Hydrogen and Hydrocarbons1. Journal of the American Chemical Society, 1996, 118, 9941-9952.	13.7	115
11	Kinetic-energy dependence of competitive spin-allowed and spin-forbidden reactions: V++CS2. Journal of Chemical Physics, 1999, 110, 7858-7870.	3.0	112
12	Electrical characterization of single GaN nanowires. Nanotechnology, 2005, 16, 2941-2953.	2.6	105
13	Collapse of Particle-Laden Interfaces under Compression: Buckling vs Particle Expulsion. Langmuir, 2015, 31, 7764-7775.	3.5	90
14	Assembly Behavior of Iron Oxide-Capped Janus Particles in a Magnetic Field. Langmuir, 2012, 28, 1149-1156.	3.5	87
15	Thermochemistry and Reactivity of Cationic Scandium and Titanium Sulfide in the Gas Phase. Journal of Physical Chemistry A, 2000, 104, 5046-5058.	2.5	78
16	Experimental and Theoretical Studies of Vanadium Sulfide Cation. Journal of Physical Chemistry A, 1998, 102, 10060-10073.	2.5	74
17	Gas-Phase Chemistry of Bare V+ Cation with Oxygen and Water at Room Temperature:â€‰ Formation and Hydration of Vanadium Oxide Cations. Journal of Physical Chemistry A, 2001, 105, 4259-4271.	2.5	74
18	Surface-Anisotropic Polystyrene Spheres by Electroless Deposition. Langmuir, 2006, 22, 8281-8284.	3.5	65

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19	Surface-anisotropic spherical colloids in geometric and field confinement. Current Opinion in Colloid and Interface Science, 2011, 16, 84-95.	7.4	65
20	Guided Ion Beam Studies of the Reactions of Ni+, Cu+, and Zn+with CS2and COSâ€. Journal of Physical Chemistry A, 2002, 106, 9788-9797.	2.5	57
21	Using the discrete dipole approximation and holographic microscopy to measure rotational dynamics of non-spherical colloidal particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 499-509.	2.3	55
22	On the Structural Dichotomy of Cationic, Anionic, and Neutral FeS2. Inorganic Chemistry, 1999, 38, 3474-3480.	4.0	52
23	Mechanical Stability of Polystyrene and Janus Particle Monolayers at the Air/Water Interface. Journal of the American Chemical Society, 2015, 137, 15370-15373.	13.7	50
24	Behaviour of iron oxide (Fe3O4) Janus particles in overlapping external AC electric and static magnetic fields. Soft Matter, 2013, 9, 9174.	2.7	48
25	Guided Ion Beam Studies of the Reactions of Fe+ and Co+ with CS2 and COS. Journal of Physical Chemistry A, 2001, 105, 8456-8464.	2.5	47
26	Guided ion beam studies of the state-specific reactions of Cr+ and Mn+ with CS2 and COS. International Journal of Mass Spectrometry, 2001, 210-211, 283-301.	1.5	46
27	Template-Assisted Fabrication of Patchy Particles with Uniform Patches. Langmuir, 2012, 28, 9915-9919.	3.5	45
28	Gas-phase thermochemistry of the early cationic transition-metal sulfides of the second row: YS+, ZrS+, and NbS+. International Journal of Mass Spectrometry, 2006, 249-250, 263-278.	1.5	42
29	11 The binding in neutral and cationic 3d and 4d transition-metal monoxides and-sulfides. Advances in Metal and Semiconductor Clusters, 2001, , 347-395.	1.5	42
30	Molecular Dynamics Simulations: Insight into Molecular Phenomena at Interfaces. Langmuir, 2014, 30, 11272-11283.	3.5	41
31	Surface tension anomaly observed for chemically-modified Janus particles at the air/water interface. Journal of Colloid and Interface Science, 2020, 558, 95-99.	9.4	35
32	Impact of Surface Amphiphilicity on the Interfacial Behavior of Janus Particle Layers under Compression. Langmuir, 2019, 35, 15813-15824.	3.5	33
33	Iron-Mediated Amination of Hydrocarbons in the Gas Phase. Helvetica Chimica Acta, 1998, 81, 2348-2369.	1.6	31
34	Structure, thermochemistry, and reactivity of MSn+ cations (M=V, Mo; n=1â€“3) in the gas phase. International Journal of Mass Spectrometry, 2003, 228, 439-456.	1.5	30
35	Template-Assisted GLAD: Approach to Single and Multipatch Patchy Particles with Controlled Patch Shape. Langmuir, 2013, 29, 15755-15761.	3.5	29
36	Electropolymerization on Microelectrodes:Â Functionalization Technique for Selective Protein and DNA Conjugation. Analytical Chemistry, 2006, 78, 6340-6346.	6.5	28

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37	The effect of capillary bridging on the Janus particle stability at the interface of two immiscible liquids. Soft Matter, 2013, 9, 4585.	2.7	28
38	Hydrodesulfurization of FeS+:Â Predominance of Kinetic over Thermodynamic Control. Journal of Physical Chemistry A, 1999, 103, 5925-5934.	2.5	26
39	Mass-Spectrometric Experiments together with Electronic Structure Calculations Support the Existence of the Elusive Ammonia Oxide Molecule and Its Radical Cation. European Journal of Inorganic Chemistry, 1998, 1998, 1529-1538.	2.0	24
40	Two-Dimensional Array of Silica Particles as a SERS Substrate. Journal of Physical Chemistry C, 2014, 118, 9114-9118.	3.1	24
41	Pt-SiO₂ Janus Particles and the Water/Oil Interface: A Competition between Motility and Thermodynamics. Langmuir, 2020, 36, 6880-6887.	3.5	24
42	Directed Motion of Metallodielectric Particles by Contact Charge Electrophoresis. Langmuir, 2016, 32, 13167-13173.	3.5	21
43	The tropylium/benzylium ion dichotomy in the gas-phase reactions of transition metal chalcogenide cations with toluene. International Journal of Mass Spectrometry and Ion Processes, 1997, 167-168, 103-115.	1.8	20
44	Molecular dynamics simulations of the evaporation of particle-laden droplets. Physical Review E, 2013, 87, 052404.	2.1	20
45	Nanoparticles at liquid interfaces: Rotational dynamics and angular locking. Journal of Chemical Physics, 2014, 140, 014904.	3.0	20
46	Floor- or Ceiling-Sliding for Chemically Active, Gyrotactic, Sedimenting Janus Particles. Langmuir, 2020, 36, 7133-7147.	3.5	20
47	Assembled Surface-Anisotropic Colloids as a Template for a Multistage Catalytic Membrane Reactor. ACS Applied Materials & Interfaces, 2009, 1, 1747-1754.	8.0	19
48	Experimental Study of the Motion of Patchy Particle Swimmers Near a Wall. Langmuir, 2018, 34, 15593-15599.	3.5	19
49	Viscosity-Dependent Janus Particle Chain Dynamics. Langmuir, 2013, 29, 14779-14786.	3.5	18
50	PCCP does exist. Physical Chemistry Chemical Physics, 2000, 2, 2245-2250.	2.8	17
51	Self-Assembly of T-Structures in Molecular Fluids. Journal of Physical Chemistry B, 2007, 111, 2081-2089.	2.6	17
52	Frenkel excitons in heat-stressed supramolecular nanocomposites enabled by tunable cage-like scaffolding. Nature Chemistry, 2020, 12, 1157-1164.	13.6	17
53	Guided ion beam and theoretical studies of the reaction of Ru+ with CS2 in the gas-phase: thermochemistry of RuC+, RuS+, and RuCS+. Physical Chemistry Chemical Physics, 2010, 12, 4078.	2.8	16
54	Self-assembly of magnetic colloids with shifted dipoles. Soft Matter, 2019, 15, 4078-4086.	2.7	16

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55	Control of photo-induced voltages in plasmonic crystals via spin-orbit interactions. Optics Express, 2016, 24, 10402.	3.4	14
56	Guided Ion Beam and Theoretical Studies of the Reactions of Pd⁺with CS₂: Thermochemistry of PdS⁺and PdCS⁺. Inorganic Chemistry, 2009, 48, 10371-10382.	4.0	13
57	Hydroxymethylcyclopropane on Oxygen-Covered Mo(110):Â A Radical Clock on a Surface. Journal of the American Chemical Society, 2000, 122, 12395-12396.	13.7	11
58	The Cyclopropylmethylâ˜3-Butenyl Rearrangement on Mo(110):Â A Radical Clock on a Surface?â€. Journal of Physical Chemistry A, 2004, 108, 2972-2981.	2.5	11
59	Colloid-Templated Multisectional Porous Polymeric Fibers. Langmuir, 2008, 24, 10616-10620.	3.5	10
60	Experimental and Theoretical Studies of the Reaction of Rh⁺ with CS₂ in the Gas Phase: Thermochemistry of RhS⁺ and RhCS⁺. Journal of Physical Chemistry A, 2009, 113, 10955-10965.	2.5	10
61	Evaluation of the Structure and Transport Properties of Nanostructured Antimony Telluride (Sb2Te3). Journal of Electronic Materials, 2014, 43, 1927-1932.	2.2	10
62	Effect of Coadsorbed Species and Temperature on Competitive Reaction Channels for Nascent Radicals:Âc-C3H7CH2SH on Mo(110)â˜(6 Ã— 1)-O. Journal of Physical Chemistry B, 2002, 106, 663-672.	2.6	9
63	Measuring, Modeling, and Predicting the Magnetic Assembly Rate of 2D-Staggered Janus Particle Chains. Langmuir, 2019, 35, 8121-8130.	3.5	9
64	Coalescence of particle-laden drops with a planar oilâ€“water interface. Journal of Colloid and Interface Science, 2011, 362, 235-241.	9.4	8
65	Self-assembly of magnetic colloids with radially shifted dipoles. Soft Matter, 2020, 16, 2460-2472.	2.7	8
66	Janus particle-based microprobes: Determination of object orientation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 513, 452-462.	4.7	7
67	Rearrangement as a probe for radical formation: bromomethylcyclopropane on oxygen-covered Mo(110). Surface Science, 2001, 479, 273-286.	1.9	6
68	Three-dimensionally ordered macroporous TiO2 electrodes: Fabrication of inverse TiO2 opals for pore-size-dependent characterization. Journal of Materials Research, 2013, 28, 369-377.	2.6	6
69	Effect of Orientation and Wetting Properties on the Behavior of Janus Particles at the Airâ€“Water Interface. ACS Applied Materials & Interfaces, 2020, 12, 5128-5135.	8.0	6
70	Impact of particle shape on electron transport and lifetime in zinc oxide nanorod-based dye-sensitized solar cells. AIMS Materials Science, 2016, 3, 51-65.	1.4	5
71	Guided ion beam and theoretical studies of the reaction of Ag+ with CS2: Gas-phase thermochemistry of AgS+ and AgCS+ and insight into spin-forbidden reactions. Journal of Chemical Physics, 2010, 132, 024306.	3.0	4
72	Investigation on electrical surface modification of waste to energy ash for possible use as an electrode material in microbial fuel cells. Waste Management and Research, 2018, 36, 259-268.	3.9	3

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73	Kinetic Control of Surface Reactions:Â Regioselectivity in the Reaction of 2-Methylcyclopropylmethanol on Mo(110)â”(6Ã—1)â”Oâ€. Journal of Physical Chemistry B, 2002, 106, 8407-8414.	2.6	2
74	Exploring the Correlation between Stability, Fluxionality, and Absorption Spectra of Ultrasmall CdSe Clusters: A Computational Study. Journal of Physical Chemistry C, 2020, 124, 12672-12681.	3.1	2
75	Broadband chiral hybrid plasmon modes on nanofingernail substrates. Nanoscale, 2020, 12, 3827-3833.	5.6	2
76	Photoluminescence modification in self-assembled fluorescent 3D photonic crystals. , 2010, , .		1
77	Chapter 8. Self-assembly of Janus Particles Under External Fields. RSC Smart Materials, 2012, , 168-203.	0.1	1
78	Preface to the Advances in Active Materials Special Issue. Langmuir, 2020, 36, 6859-6860.	3.5	1
79	Spontaneous emission enhancement using hyperbolic metamaterials. , 2011, , .		0
80	Effect of Janus particles as filler materials for acrylate-based dielectric elastomers. Proceedings of SPIE, 2012, , .	0.8	0
81	Towards a Large-area Plasmonic Polarization Detector. , 2016, , .		0
82	Kinetics of Formation of Quantum Dot Solvent N-Oleoylmorpholine. Industrial & Engineering Chemistry Research, 2020, 59, 8562-8570.	3.7	0