Ben H ErnÃ©

List of Publications by Year
in descending order

83 papers	2,755 citations	201674 27 h-index	189892 50 g-index
85 all docs	85 docs citations	85 times ranked	3178 citing authors

#	Article	IF	Citations
1	Direct Imaging of Zero-Field Dipolar Structures in Colloidal Dispersions of Synthetic Magnetite. Journal of the American Chemical Society, 2004, 126, 16706-16707.	13.7	194
2	Quantitative Real-Space Analysis of Self-Assembled Structures of Magnetic Dipolar Colloids. Physical Review Letters, 2006, 96, 037203.	7.8	190
3	InÂSituImaging of Field-Induced Hexagonal Columns in Magnetite Ferrofluids. Physical Review Letters, 2006, 97, 185702.	7.8	176
4	Glycerol Etherification over Highly Active CaOâ€Based Materials: New Mechanistic Aspects and Related Colloidal Particle Formation. Chemistry - A European Journal, 2008, 14, 2016-2024.	3.3	161
5	Morphology and Strongly Enhanced Photoresponse of GaP Electrodes Made Porous by Anodic Etching. Journal of the Electrochemical Society, 1996, 143, 305-314.	2.9	140
6	Surface analysis of magnetite nanoparticles in cyclohexane solutions of oleic acid and oleylamine. Vibrational Spectroscopy, 2007, 43, 243-248.	2.2	140
7	Water-in-Water Emulsions Stabilized by Nanoplates. ACS Macro Letters, 2015, 4, 965-968.	4.8	122
8	Diverging Geometric and Magnetic Size Distributions of Iron Oxide Nanocrystals. Journal of Physical Chemistry C, 2011, 115, 14598-14605.	3.1	81
9	Dipolar Structures in Colloidal Dispersions of PbSe and CdSe Quantum Dots. Nano Letters, 2007, 7, 2931-2936.	9.1	77
10	Dipolar structures in magnetite ferrofluids studied with small-angle neutron scattering with and without applied magnetic field. Physical Review E, 2007, 75, 051408.	2.1	76
11	Porous etching: A means to enhance the photoresponse of indirect semiconductors. Advanced Materials, 1995, 7, 739-742.	21.0	70
12	Rotational Diffusion in Iron Ferrofluids. Langmuir, 2003, 19, 8218-8225.	3.5	67
13	Frequency-Dependent Magnetic Susceptibility of Magnetite and Cobalt Ferrite Nanoparticles Embedded in PAA Hydrogel. International Journal of Molecular Sciences, 2013, 14, 10162-10177.	4.1	59
14	Surface Composition of nâ€GaAs Cathodes during Hydrogen Evolution Characterized by In Situ Ultravioletâ€Visible Ellipsometry and In Situ Infrared Spectroscopy. Journal of the Electrochemical Society, 1998, 145, 447-456.	2.9	44
15	Non-regularized inversion method from light scattering applied to ferrofluid magnetization curves for magnetic size distribution analysis. Journal of Magnetism and Magnetic Materials, 2014, 353, 110-115.	2.3	44
16	The Mechanism of Hydrogen Gas Evolution on GaAs Cathodes Elucidated by In Situ Infrared Spectroscopy. Journal of Physical Chemistry B, 1999, 103, 2948-2962.	2.6	43
17	Debye Length Dependence of the Anomalous Dynamics of Ionic Double Layers in a Parallel Plate Capacitor. Journal of Physical Chemistry C, 2014, 118, 11584-11592.	3.1	42
18	Tuning the Colloidal Crystal Structure of Magnetic Particles by External Field. Angewandte Chemie - International Edition, 2015, 54, 1803-1807.	13.8	39

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19	Donnan Potentials in Aqueous Phase-Separated Polymer Mixtures. Langmuir, 2014, 30, 5755-5762.	3.5	36
20	Coulometry and Calorimetry of Electric Double Layer Formation in Porous Electrodes. Physical Review Letters, 2017, 119, 166002.	7.8	35
21	In situ semiconductor surface characterisation: a comparative infrared study of Si, Ge and GaAs. Electrochimica Acta, 2000, 45, 3205-3211.	5.2	34
22	Macroscopic electric field and osmotic pressure in ultracentrifugal sedimentationâ€“diffusion equilibria of charged colloids. Journal of Physics Condensed Matter, 2005, 17, 2293-2314.	1.8	34
23	Low-temperature dynamics of magnetic colloids studied by time-resolved small-angle neutron scattering. Physical Review B, 2008, 77, .	3.2	34
24	Silica cubes with tunable coating thickness and porosity: From hematite filled silica boxes to hollow silica bubbles. Microporous and Mesoporous Materials, 2014, 195, 75-86.	4.4	33
25	The anodic dissolution of InP studied by the optoelectrical impedance methodâ€”1. Competition between electron injection and hole capture at InP photoanodes. Electrochimica Acta, 1993, 38, 2559-2567.	5.2	30
26	Decreased Interfacial Tension of Demixed Aqueous Polymer Solutions due to Charge. Physical Review Letters, 2015, 115, 078303.	7.8	30
27	Short-range magnetic order in two-dimensional cobalt-ferrite nanoparticle assemblies. Physical Review B, 2008, 77, .	3.2	29
28	HBr-K2Cr2O7-H2O etching system for indium phosphide. Journal of Crystal Growth, 1994, 141, 57-67.	1.5	26
29	Flux closure in two-dimensional magnetite nanoparticle assemblies. Physical Review B, 2006, 73, .	3.2	26
30	In situ infrared spectroscopy of the semiconductorâˆ£electrolyte interface. Journal of Electroanalytical Chemistry, 2001, 509, 108-118.	3.8	25
31	Enthalpy and entropy of nanoparticle association from temperature-dependent cryo-TEM. Physical Chemistry Chemical Physics, 2011, 13, 12770.	2.8	23
32	Dynamics of Hydrogen Adsorption on GaAs Electrodes. Physical Review Letters, 1998, 80, 4337-4340.	7.8	22
33	Self-Assembled CdSe/CdS Nanorod Sheets Studied in the Bulk Suspension by Magnetic Alignment. ACS Nano, 2014, 8, 10486-10495.	14.6	22
34	Sedimentation equilibria of ferrofluids: II. Experimental osmotic equations of state of magnetite colloids. Journal of Physics Condensed Matter, 2012, 24, 245104.	1.8	21
35	The Lowâ€Frequency Impedance of Anodically Dissolving Semiconductor and Metal Electrodes: A Common Origin?. Journal of the Electrochemical Society, 1997, 144, 3385-3392.	2.9	20
36	Coupled Partial Ionâ€Transfer Steps in the Anodic Dissolution of Metals. Journal of the Electrochemical Society, 1999, 146, 2488-2494.	2.9	20

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37	Comparison of reversible and irreversible dipolar assemblies in a ferrofluid. Journal of Magnetism and Magnetic Materials, 2006, 306, 85-91.	2.3	20
38	Sedimentation equilibria of ferrofluids: I. Analytical centrifugation in ultrathin glass capillaries. Journal of Physics Condensed Matter, 2012, 24, 245103.	1.8	20
39	Size Fractionation in a Phase-Separated Colloidal Fluid. Langmuir, 2005, 21, 1802-1805.	3.5	19
40	Composition tunable cobaltâ€“nickel and cobaltâ€“iron alloy nanoparticles below 10Ânm synthesized using acetonated cobalt carbonyl. Journal of Nanoparticle Research, 2012, 14, 991.	1.9	19
41	Composition, concentration and charge profiles of waterâ€“water interfaces. Journal of Physics Condensed Matter, 2014, 26, 464101.	1.8	19
42	Ion Entropy in Phase-Separated Aqueous Mixtures of Polyelectrolyte and Neutral Polymer. Macromolecules, 2015, 48, 2819-2828.	4.8	19
43	Magnetization behavior of ferrofluids with cryogenically imaged dipolar chains. Journal of Physics Condensed Matter, 2008, 20, 204113.	1.8	18
44	Complex magnetic susceptibility setup for spectroscopy in the extremely low-frequency range. Review of Scientific Instruments, 2008, 79, 013901.	1.3	18
45	Size-Dependent Second Virial Coefficients of Quantum Dots from Quantitative Cryogenic Electron Microscopy. Journal of Physical Chemistry B, 2014, 118, 11000-11005.	2.6	18
46	Thermal Motion of Magnetic Iron Nanoparticles in a Frozen Solvent. Langmuir, 2005, 21, 1187-1191.	3.5	17
47	Effects of Electric Charge on the Interfacial Tension between Coexisting Aqueous Mixtures of Polyelectrolyte and Neutral Polymer. Macromolecules, 2015, 48, 7335-7345.	4.8	17
48	Role of Germanium on the Nucleation and Growth of Zeolite A from Clear Solutions As Studied by in Situ Small-Angle X-ray Scattering, Wide-Angle X-ray Scattering, and Dynamic Light Scattering. Journal of Physical Chemistry C, 2009, 113, 18614-18622.	3.1	16
49	Local pH Change during Diffusion-Limited Proton Reduction Determined by In Situ Infrared Spectroscopy. Electrochemical and Solid-State Letters, 1999, 2, 231.	2.2	15
50	Equilibrium Structures of PbSe and CdSe Colloidal Quantum Dots Detected by Dielectric Spectroscopy. Journal of Physical Chemistry C, 2014, 118, 7185-7194.	3.1	15
51	On the increase of the photocurrent quantum efficiency of GaP photoanodes due to (photo)anodic pretreatments. Electrochimica Acta, 1995, 40, 689-698.	5.2	14
52	Low-frequency complex magnetic susceptibility of magnetic composite microspheres in colloidal dispersion. Journal of Magnetism and Magnetic Materials, 2007, 311, 145-149.	2.3	14
53	Bimodal distribution of the magnetic dipole moment in nanoparticles with a monomodal distribution of the physical size. Journal of Magnetism and Magnetic Materials, 2015, 380, 325-329.	2.3	14
54	Porous Anodic Etching of p-Cd[sub 1â^'x]Zn[sub x]Te Studied by Photocurrent Spectroscopy. Journal of the Electrochemical Society, 2000, 147, 3759.	2.9	13

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55	Spatial Distribution of Nanocrystals Imaged at the Liquid-Air Interface. Physical Review Letters, 2013, 111, 108302.	7.8	13
56	Colloidal Stability of Aqueous Ferrofluids at 10ÂT. Journal of Physical Chemistry Letters, 2020, 11, 5908-5912.	4.6	13
57	GaAs/H2O2Electrochemical Interface Studied In Situ by Infrared Spectroscopy and Ultravioletâ^'Visible Ellipsometry Part I:Â Identification of Chemical Species. Journal of Physical Chemistry B, 2000, 104, 5961-5973.	2.6	11
58	Measurement of the zero-field magnetic dipole moment of magnetizable colloidal silica spheres. Journal of Physics Condensed Matter, 2007, 19, 036105.	1.8	11
59	Interfacial Tension of Phase-Separated Polydisperse Mixed Polymer Solutions. Journal of Physical Chemistry B, 2018, 122, 3354-3362.	2.6	11
60	Porosity and Tellurium-Enrichment of Anodized p-Cd[sub 0.95]Zn[sub 0.05]Te. Electrochemical and Solid-State Letters, 1999, 2, 619.	2.2	10
61	Swelling Enhanced Remanent Magnetization of Hydrogels Cross-Linked with Magnetic Nanoparticles. Langmuir, 2015, 31, 442-450.	3.5	10
62	Chemical physics of waterâ€“water interfaces. Biointerphases, 2016, 11, 018904.	1.6	10
63	Magnetic detection of nanoparticle sedimentation in magnetized ferrofluids. Journal of Magnetism and Magnetic Materials, 2019, 472, 53-58.	2.3	10
64	GaAs/H2O2Electrochemical Interface StudiedIn Situby Infrared Spectroscopy and Ultravioletâ^'Visible Ellipsometry Part II:Â Chemical Origin of Cathodic Oscillations. Journal of Physical Chemistry B, 2000, 104, 5974-5985.	2.6	9
65	Semiconductor Flatband Potential Determination by Electromodulated Infrared Spectroscopy. Journal of Physical Chemistry B, 2000, 104, 11591-11593.	2.6	8
66	Thermodynamics of water superheated in the microwave oven. Journal of Chemical Education, 2000, 77, 1309.	2.3	8
67	A differential dielectric spectroscopy setup to measure the electric dipole moment and net charge of colloidal quantum dots. Review of Scientific Instruments, 2014, 85, 033903.	1.3	8
68	Rotational dynamics of magnetic silica spheres studied by measuring the complex magnetic susceptibility. Journal of Physics Condensed Matter, 2007, 19, 286102.	1.8	7
69	Magnetic Sedimentation Velocities and Equilibria in Dilute Aqueous Ferrofluids. Journal of Physical Chemistry B, 2020, 124, 7989-7998.	2.6	6
70	The system BaCO3 + SrCO3; crystal phase transitions: dta measurements and thermodynamic phase diagram analysis. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 1992, 16, 63-72.	1.6	5
71	The anodic dissolution of InP studied by the optoelectrical impedance methodâ€"2. Interaction between anodic and chemical etching of InP in iodic acid solutions. Electrochimica Acta, 1993, 38, 2569-2575.	5.2	5
72	Surface films on HgCdTe and CdTe etched in ferricyanide solution. Applied Surface Science, 2001, 175-176, 579-584.	6.1	5

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73	Vertical Concentration Profiles in Colloidal Fluids Measured by FTIR-ATR Spectroscopy. Langmuir, 2003, 19, 3081-3083.	3.5	5
74	Impedance analysis of oil conductivity and pixel non-uniformity in electrowetting displays. Results in Physics, 2020, 18, 103223.	4.1	5
75	Extending Surfaceâ€Enhanced Raman Spectroscopy to Liquids Using Shellâ€Isolated Plasmonic Superstructures. Chemistry - A European Journal, 2019, 25, 15772-15778.	3.3	3
76	Surface reactivity of InSb studied by cyclic voltammetry coupled to XPS. European Physical Journal Special Topics, 2006, 132, 147-151.	0.2	2
77	Demagnetization Treatment of Remanent Composite Microspheres Studied by Alternating Current Susceptibility Measurements. International Journal of Molecular Sciences, 2013, 14, 18093-18109.	4.1	2
78	Diverging electrophoretic and dynamic mobility of model silica colloids at low ionic strength in ethanol. Journal of Colloid and Interface Science, 2014, 422, 65-70.	9.4	2
79	Magnetic Nanoparticles for Diagnosis and Medical Therapy. , 2011, , 85-95.		1
80	Note: Rapid offset reduction of impedance bridges taking into account instrumental damping and phase shifting. Review of Scientific Instruments, 2013, 84, 036109.	1.3	1
81	Thermodynamic Charge-to-Mass Sensor for Colloids, Proteins, and Polyelectrolytes. ACS Sensors, 2016, 1, 1344-1350.	7.8	1
82	Extending Surfaceâ€Enhanced Raman Spectroscopy to Liquids Using Shellâ€Isolated Plasmonic Superstructures. Chemistry - A European Journal, 2019, 25, 15706-15706.	3.3	1
83	Stroboscopic Small Angle Neutron Scattering Investigations of Microsecond Dynamics in Magnetic Nanomaterials. Springer Series in Solid-state Sciences, 2009, , 241-263.	0.3	0