Neal Skipper

List of Publications by Year
in descending order

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115 papers	7,564 citations	71102 41 h-index	53230 85 g-index
117 all docs	117 docs citations	117 times ranked	7774 citing authors

#	Article	IF	Citations
1	Surface geochemistry of the clay minerals. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 3358-3364.	7.1	641
2	Superconductivity in the intercalated graphite compounds C6Yb and C6Ca. Nature Physics, 2005, 1, 39-41.	16.7	633
3	Monte Carlo Molecular Modeling Studies of Hydrated Li-, Na-, and K-Smectites: Understanding the Role of Potassium as a Clay Swelling Inhibitor. Journal of the American Chemical Society, 1995, 117, 12608-12617.	13.7	457
4	Synthesis of graphene-like nanosheets and their hydrogen adsorption capacity. Carbon, 2010, 48, 630-635.	10.3	415
5	Monte Carlo Simulation of Interlayer Molecular Structure in Swelling Clay Minerals. 1. Methodology. Clays and Clay Minerals, 1995, 43, 285-293.	1.3	310
6	Computer Simulation of Interlayer Molecular Structure in Sodium Montmorillonite Hydrates. Langmuir, 1995, 11, 2734-2741.	3.5	292
7	Monte Carlo Simulation of Interlayer Molecular Structure in Swelling Clay Minerals. 2. Monolayer Hydrates. Clays and Clay Minerals, 1995, 43, 294-303.	1.3	228
8	Computer simulation of interlayer water in 2:1 clays. Journal of Chemical Physics, 1991, 94, 7434-7445.	3.0	211
9	Production of phosphorene nanoribbons. Nature, 2019, 568, 216-220.	27.8	208
10	Evidence for Asphaltene Nanoaggregation in Toluene and Heptane from Molecular Dynamics Simulations. Energy & Fuels, 2009, 23, 1220-1229.	5.1	193
11	Molecular Modeling of Clay Hydration: A Study of Hysteresis Loops in the Swelling Curves of Sodium Montmorillonites. Langmuir, 1995, 11, 4629-4631.	3.5	188
12	Charged Carbon Nanomaterials: Redox Chemistries of Fullerenes, Carbon Nanotubes, and Graphenes. Chemical Reviews, 2018, 118, 7363-7408.	47.7	182
13	Structure of Ï€âˆ'Ï€ Interactions in Aromatic Liquids. Journal of the American Chemical Society, 2010, 132, 5735-5742.	13.7	177
14	Monte Carlo and Molecular Dynamics Simulations of Interfacial Structure in Lithium-Montmorillonite Hydrates. Langmuir, 1997, 13, 2074-2082.	3.5	139
15	Diffraction and the study of aqua ions. The Journal of Physical Chemistry, 1987, 91, 5851-5858.	2.9	130
16	Monte Carlo and Molecular Dynamics Simulations of Electrical Double-Layer Structure in Potassiumâˆ'Montmorillonite Hydrates. Langmuir, 1998, 14, 1201-1207.	3.5	129
17	The structure of interlayer water in vermiculite. Journal of Chemical Physics, 1991, 94, 5751-5760.	3.0	126
18	X-ray and neutron diffraction studies on concentrated aqueous solutions of sodium nitrate and silver nitrate. Journal of Physics Condensed Matter, 1989, 1, 4141-4154.	1.8	118

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19	Understanding the behaviour of graphene oxide in Portland cement paste. Cement and Concrete Research, 2018, 111, 169-182.	11.0	112
20	The structure and dynamics of 2-dimensional fluids in swelling clays. Chemical Geology, 2006, 230, 182-196.	3.3	108
21	K+ coordination in aqueous solution. Chemical Physics Letters, 1985, 114, 35-38.	2.6	88
22	Scalable Method for the Reductive Dissolution, Purification, and Separation of Single-Walled Carbon Nanotubes. ACS Nano, 2012, 6, 54-62.	14.6	81
23	An investigation into the colloidal stability of graphene oxide nano-layers in alite paste. Cement and Concrete Research, 2017, 99, 116-128.	11.0	80
24	Formation of Methane Hydrate in the Presence of Natural and Synthetic Nanoparticles. Journal of the American Chemical Society, 2018, 140, 3277-3284.	13.7	73
25	Computer simulation of methaneâ€"water solutions. Evidence for a temperature-dependent hydrophobic attraction. Chemical Physics Letters, 1993, 207, 424-429.	2.6	72
26	The Three-Dimensional Structure of Water Confined in Nanoporous Vycor Glass. Journal of Physical Chemistry B, 2007, 111, 5610-5620.	2.6	72
27	Structural Studies of Ammonia and Metallic Lithiumâ^'Ammonia Solutions. Journal of the American Chemical Society, 2003, 125, 2572-2581.	13.7	68
28	Ionic solutions of two-dimensional materials. Nature Chemistry, 2017, 9, 244-249.	13.6	68
29	A Solution Selection Model for Coaxial Electrospinning and Its Application to Nanostructured Hydrogen Storage Materials. Journal of Physical Chemistry C, 2010, 114, 21201-21213.	3.1	66
30	Direct Measurement of the Electric Double-Layer Structure in Hydrated Lithium Vermiculite Clays by Neutron Diffraction. The Journal of Physical Chemistry, 1995, 99, 14201-14204.	2.9	65
31	Computer Calculation of Water-Clay Interactions Using Atomic Pair Potentials. Clay Minerals, 1989, 24, 411-425.	0.6	61
32	Atomistic computer simulation of the clayâ€"fluid interface in colloidal laponite. Journal of Chemical Physics, 2001, 114, 3727-3733.	3.0	60
33	Structure and Morphology of Charged Graphene Platelets in Solution by Small-Angle Neutron Scattering. Journal of the American Chemical Society, 2012, 134, 8302-8305.	13.7	60
34	Neutron diffraction study of calcium vermiculite: hydration of calcium ions in a confined environment. The Journal of Physical Chemistry, 1994, 98, 942-945.	2.9	51
35	Structure of Solutions of Lithium in Methylamine across the Metalâ^'Nonmetal Transition. Journal of Physical Chemistry B, 2002, 106, 11-14.	2.6	49
36	Monte Carlo and molecular dynamics simulations of methane in potassium montmorillonite clay hydrates at elevated pressures and temperatures. Journal of Colloid and Interface Science, 2005, 282, 422-427.	9.4	48

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37	Design of hyperporous graphene networks and their application in solid-amine based carbon capture systems. Journal of Materials Chemistry A, 2017, 5, 17833-17840.	10.3	48
38	Computer simulation of the structure and dynamics of methane in hydrated Na-smectite clay. Chemical Physics Letters, 2000, 329, 23-28.	2.6	47
39	Molecular dynamics simulation of methane in sodium montmorillonite clay hydrates at elevated pressures and temperatures. Molecular Physics, 2001, 99, 899-906.	1.7	47
40	The structure of saturated lithiumâ€“ and potassiumâ€“ammonia solutions as studied by using neutron diffraction. Journal of Chemical Physics, 2000, 112, 7147-7151.	3.0	43
41	The Structure of Interlayer Water in Liâ^'Montmorillonite Studied by Neutron Diffraction with Isotopic Substitution. Journal of Physical Chemistry B, 1998, 102, 10899-10905.	2.6	42
42	High-Performance Zincâ€“Air Batteries with Scalable Metalâ€“Organic Frameworks and Platinum Carbon Black Bifunctional Catalysts. ACS Applied Materials & Interfaces, 2020, 12, 42696-42703.	8.0	41
43	Superior Multifunctional Activity of Nanoporous Carbons with Widely Tunable Porosity: Enhanced Storage Capacities for Carbonâ€Dioxide, Hydrogen, Water, and Electric Charge. Advanced Energy Materials, 2020, 10, 1903649.	19.5	41
44	A Monte Carlo study of water at an uncharged clay surface. Journal of Physics Condensed Matter, 1997, 9, 4081-4087.	1.8	40
45	Single-walled carbon nanotube composite inks for printed gas sensors: enhanced detection of NO₂, NH₃, EtOH and acetone. RSC Advances, 2014, 4, 51395-51403.	3.6	40
46	An X-ray diffraction study of Ni(aq)2+and Mg(aq)2+by difference methods. Journal of Physics Condensed Matter, 1989, 1, 3489-3506.	1.8	38
47	High-Resolution Structural Study of an Electrical Double Layer by Neutron Diffraction. Journal of Physical Chemistry B, 1998, 102, 8945-8949.	2.6	37
48	The aggregation of methane in aqueous solution. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 2263-2267.	1.7	36
49	Turbostratic graphite nanofibres from electrospun solutions of PAN in dimethylsulphoxide. European Polymer Journal, 2010, 46, 1194-1202.	5.4	35
50	The structure of pore fluids in swelling clays at elevated pressures and temperatures. Journal of Physics Condensed Matter, 1999, 11, 9179-9188.	1.8	34
51	Sizeâ€Related Electrochemical Performance in Active Carbon Nanostructures: A MOFsâ€Derived Carbons Case Study. Advanced Science, 2019, 6, 1901517.	11.2	34
52	Computer simulation studies of the hydration and aggregation of simple hydrophobic molecules. Faraday Discussions, 1996, 103, 141.	3.2	32
53	Computer simulation of aqueous pore fluids in 2:1 clay minerals. Mineralogical Magazine, 1998, 62, 657-667.	1.4	32
54	Quantum Delocalization of Molecular Hydrogen in Alkali-Graphite Intercalates. Physical Review Letters, 2008, 101, 126101.	7.8	32

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55	X-ray diffraction studies of solutions of lithium in ammonia: The structure of the metalâ€“nonmetal transition. Journal of Chemical Physics, 2002, 116, 2991-2996.	3.0	30
56	Pressure dependence of the superconducting transition temperature inC6YbandC6Ca. Physical Review B, 2006, 74, .	3.2	30
57	Probing the binding and spatial arrangement of molecular hydrogen in porous hosts via neutron Compton scattering. Faraday Discussions, 2011, 151, 171.	3.2	30
58	The structure of polaronic electron cavities in lithiumâ€“ammonia solutions. Journal of Physics Condensed Matter, 2004, 16, 5639-5652.	1.8	29
59	Electrochemical Processing of Discrete Single-Walled Carbon Nanotube Anions. ACS Nano, 2013, 7, 1769-1778.	14.6	29
60	Time-of-flight neutron diffraction studies of clay-fluid interactions under basin conditions. Clay Minerals, 2000, 35, 283-290.	0.6	27
61	Formation of Giant Solvation Shells around Fulleride Anions in Liquid Ammonia. Journal of the American Chemical Society, 2004, 126, 13228-13229.	13.7	27
62	Local Structure and Polar Order in Liquid N-Methyl-2-pyrrolidone (NMP). Journal of Physical Chemistry B, 2018, 122, 8963-8971.	2.6	27
63	Probing the charging mechanisms of carbon nanomaterial polyelectrolytes. Faraday Discussions, 2014, 172, 311-325.	3.2	25
64	Controlling the Cross-Sensitivity of Carbon Nanotube-Based Gas Sensors to Water Using Zeolites. ACS Applied Materials & Interfaces, 2016, 8, 28096-28104.	8.0	25
65	The structure of lithiumâ€“ammonia and sodiumâ€“ammonia solutions by neutron diffraction. Journal of Chemical Physics, 2003, 118, 7486.	3.0	24
66	Hydration of Hg2+ in Aqueous Solution Studied by Neutron Diffraction with Isotopic Substitution. Journal of Physical Chemistry A, 2007, 111, 5123-5125.	2.5	24
67	Ionic structure in aqueous electrolyte solution by the difference method of X-ray diffraction. Nature, 1986, 321, 52-53.	27.8	23
68	Temperature dependence of solvent structure around a hydrophobic solute: a Monte Carlo study of methane in water. Chemical Physics Letters, 1996, 253, 209-215.	2.6	22
69	Structure of a metallic solution of lithium in ammonia. Physical Review B, 2000, 61, 11993-11997.	3.2	22
70	Computer simulation of the structure and dynamics of phenol in sodium montmorillonite hydrates. European Journal of Soil Science, 2007, 58, 958-966.	3.9	22
71	Activation and local structural stability during the thermal decomposition of Mg/Al-hydrotalcite by total neutron scattering. Journal of Materials Chemistry, 2011, 21, 15479.	6.7	22
72	Effect of hydrogenation on structure and superconducting properties of CaC6. Journal of Materials Chemistry, 2009, 19, 5239.	6.7	20

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73	Chiral interactions of histidine in a hydrated vermiculite clay. Physical Chemistry Chemical Physics, 2011, 13, 825-830.	2.8	20
74	The structures of liquid pyridine and naphthalene: the effects of heteroatoms and core size on aromatic interactions. Physical Chemistry Chemical Physics, 2018, 20, 2704-2715.	2.8	20
75	Opening the terahertz window on the OSIRIS spectrometer. EPJ Web of Conferences, 2015, 83, 03003.	0.3	19
76	The liquid structure of the solvents dimethylformamide (DMF) and dimethylacetamide (DMA). Molecular Physics, 2019, 117, 3353-3363.	1.7	19
77	The Solvation Structure of Fulleride C605-Anions in Potassium Ammonia Solution. Journal of Physical Chemistry C, 2007, 111, 5640-5647.	3.1	17
78	Electron Solvation and the Unique Liquid Structure of a Mixedâ€Amine Expanded Metal: The Saturated Liâ€“NH₃â€“MeNH₂ System. Angewandte Chemie - International Edition, 2017, 56, 1561-1565.	13.8	17
79	Chemical routes to discharging graphenides. Nanoscale, 2017, 9, 3150-3158.	5.6	17
80	The structure of calciumâ€“ammonia solutions by neutron diffraction. Journal of Chemical Physics, 2004, 121, 996-1004.	3.0	15
81	Computer Simulations of Fulleride Anions in Metal-Ammonia Solutions. Journal of Physical Chemistry B, 2009, 113, 3324-3332.	2.6	15
82	Structure and Dynamics of Molecular Hydrogen in the Interlayer Pores of a Swelling 2:1 Clay by Neutron Scattering. Journal of Physical Chemistry C, 2014, 118, 25740-25747.	3.1	14
83	Structure of alkyl ammonium solutions in vermiculite clays. Faraday Discussions, 1996, 104, 295.	3.2	12
84	The interlayer structure of a graphiteâ€“potassiumâ€“ammonia intercalation compound by neutron diffraction. Chemical Physics Letters, 1999, 300, 444-450.	2.6	11
85	Liquidâˆ’Liquid Phase Separation and Microscopic Structure in Rubidiumâˆ’Ammonia Solutions Observed Using X-ray Absorption Spectroscopy. Journal of Physical Chemistry B, 2003, 107, 14452-14456.	2.6	11
86	Dihydrogen vs. hydrogen bonding in the solvation of ammonia borane by tetrahydrofuran and liquid ammonia. Physical Chemistry Chemical Physics, 2018, 20, 12200-12209.	2.8	11
87	Proton dynamics in lithium-ammonia solutions and expanded metals. Journal of Chemical Physics, 2006, 124, 024501.	3.0	10
88	Crystalline structure of an ammonia boraneâ€“polyethylene oxide cocrystal: a material investigated for its hydrogen storage potential. CrystEngComm, 2018, 20, 4436-4440.	2.6	10
89	Trajectory of the Selective Dissolution of Charged Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2017, 121, 21703-21712.	3.1	9
90	The structure of liquid methylamine and solutions of lithium in methylamine. Molecular Physics, 2001, 99, 779-786.	1.7	8

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91	Neutron diffraction study of the structure of saturated sodium-ammonia solutions. Journal of Molecular Liquids, 2002, 96-97, 341-352.	4.9	8
92	Interlayer Molecular Structure and Dynamics in Li-, Na-, and K-Montmorillonite-Water Systems. ACS Symposium Series, 1999, , 88-106.	0.5	7
93	Neutron Diffraction Studies of Graphiteâ^'Potassiumâ^'Methylamine:Â Staging Transitions and Structure of New Graphite Intercalation Compounds. Journal of Physical Chemistry B, 2000, 104, 10969-10972.	2.6	7
94	Structure and phase stability of hydrogenated first-stage alkali- and alkaline-earth metalâ€“graphite intercalation compounds. Synthetic Metals, 2010, 160, 1631-1635.	3.9	7
95	Neutron scattering studies of hydrogen in potassiumâ€“graphite intercalates: Towards tunable graphite intercalates for hydrogen storage. Physica B: Condensed Matter, 2006, 385-386, 163-165.	2.7	6
96	Ammonia absorption in calcium graphite intercalation compound: in situ neutron diffraction, Raman spectroscopy and magnetization. Physical Chemistry Chemical Physics, 2010, 12, 6253.	2.8	6
97	Switchable changes in the conductance of single-walled carbon nanotube networks on exposure to water vapour. Nanoscale, 2017, 9, 11279-11287.	5.6	6
98	Ca-intercalated graphite as a hydrogen storage material: Stability against decomposition into CaH2 and graphite. Journal of Solid State Chemistry, 2011, 184, 1561-1565.	2.9	5
99	A novel ammonium pentaborate â€“ poly(ethylene-glycol) templated polymer-inclusion compound. Chemical Communications, 2019, 55, 8290-8292.	4.1	5
100	Superconductivity at elevated temperatures in and. Physica B: Condensed Matter, 2006, 378-380, 636-639.	2.7	4
101	Isotope substitution of interfacial fluids in vermiculite clays. Physica B: Condensed Matter, 1997, 234-236, 375-376.	2.7	3
102	A high-resolution neutron scattering study of the hydrogen-driven metal-insulator phase transition in KC8Hx. Journal of Alloys and Compounds, 2007, 446-447, 397-401.	5.5	3
103	High temperature hydrogenation of CaC6. Physica C: Superconductivity and Its Applications, 2009, 469, 2000-2002.	1.2	3
104	Positive pressure dependence of the superconducting transition temperature in. Physica B: Condensed Matter, 2006, 378-380, 892-893.	2.7	2
105	Questioning Antiferromagnetic Ordering in the Expanded Metal, Li(NH₃)₄: A Lack of Evidence from Î¼SR. Journal of Physical Chemistry Letters, 2015, 6, 3966-3970.	4.6	1
106	Electron Solvation and the Unique Liquid Structure of a Mixedâ€Amine Expanded Metal: The Saturated Liâ€“NH₃â€“MeNH₂ System. Angewandte Chemie, 2017, 129, 1583-1587.	2.0	1
107	Sizeâ€Effects: Sizeâ€Related Electrochemical Performance in Active Carbon Nanostructures: A MOFsâ€Derived Carbons Case Study (Adv. Sci. 20/2019). Advanced Science, 2019, 6, 1970123.	11.2	1
108	Solvation of Na^{â€“} in the Sodide Solution, LiNaÂ·10MeNH₂. Journal of Physical Chemistry B, 2019, 123, 5337-5342.	2.6	1

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109	Nanoporous Carbons: Superior Multifunctional Activity of Nanoporous Carbons with Widely Tunable Porosity: Enhanced Storage Capacities for Carbonâ€Dioxide, Hydrogen, Water, and Electric Charge (Adv.) Tj ETQq1 1 0.784314 rgBT /Ov	1.0	14
110	Intermediate Range Order in Metalâ€“Ammonia Solutions: Pure and Na-Doped Ca-NH₃. Journal of Physical Chemistry B, 2021, 125, 7456-7461.	2.6	1
111	The Ammonia-Driven Phase Transition in Bulk and Nanostructured Potassium Graphite KC₂₄. Materials Research Society Symposia Proceedings, 2009, 1216, 1.	0.1	0
112	Neutron scattering gets short-changed. Physics World, 2009, 22, 15-15.	0.0	0
113	Magnetic behaviour in Dy1 â^'xMmxCo2compounds. Journal of Physics Condensed Matter, 2010, 22, 436001.	1.8	0
114	Molecular Modelling of Pore Fluids in Clays. , 2004, , 301-332.		0
115	Pollutant Speciation in Water and Related Environmental Treatment Issues. Neutron Scattering Applications and Techniques, 2009, , 491-520.	0.2	0