Scott L Wallen

List of Publications by Year
in descending order

50 papers	4,687 citations	236925 25 h-index	214800 47 g-index
52 all docs	52 docs citations	52 times ranked	5780 citing authors

#	Article	IF	Citations
1	Completely â€œGreenâ€•Synthesis and Stabilization of Metal Nanoparticles. Journal of the American Chemical Society, 2003, 125, 13940-13941.	13.7	1,985
2	A simple and â€œgreenâ€•method for the synthesis of Au, Ag, and Auâ€“Ag alloy nanoparticles. Green Chemistry, 2006, 8, 34-38.	9.0	545
3	Cooperative Câˆ’HÂ·Â·Â·O Hydrogen Bonding in CO2âˆ’Lewis Base Complexes:Â Implications for Solvation in Supercritical CO2. Journal of the American Chemical Society, 2002, 124, 12590-12599.	13.7	307
4	Polar Attributes of Supercritical Carbon Dioxide. Accounts of Chemical Research, 2005, 38, 478-485.	15.6	250
5	Sugar Acetates as Novel, Renewable CO2-philes. Journal of the American Chemical Society, 2002, 124, 7274-7275.	13.7	187
6	Exploring CO2-Philicity: Effects of Stepwise Fluorination. Journal of Physical Chemistry B, 2003, 107, 1473-1477.	2.6	131
7	Raman Spectroscopic Evidence for Cooperative Câˆ’HÂ·Â·Â·O Interactions in the Acetaldehydeâˆ’CO2Complex. Journal of the American Chemical Society, 2002, 124, 14818-14819.	13.7	127
8	Rubidium ion hydration in ambient and supercritical water. Journal of Chemical Physics, 1996, 105, 2161-2166.	3.0	122
9	Hydration of Bromide Ion in Supercritical Water:Â An X-ray Absorption Fine Structure and Molecular Dynamics Study. Journal of Physical Chemistry A, 1997, 101, 9632-9640.	2.5	89
10	The ion pairing and hydration structure of Ni2+ in supercritical water at 425â€‰Â°C determined by x-ray absorption fine structure and molecular dynamics studies. Journal of Chemical Physics, 1998, 108, 4039-4046.	3.0	89
11	Leed / auger verification of the in situ method of preparation of Pt (111) single crystal electrodes. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1988, 256, 51-63.	0.1	66
12	Spectroscopic Studies of Model Carbonyl Compounds in CO2:â€‰ Evidence for Cooperative Câˆ’HÂ·Â·Â·O Interactions. Journal of Physical Chemistry A, 2003, 107, 10311-10323.	2.5	63
13	Quartz Crystal Microbalance (QCM) in High-Pressure Carbon Dioxide (CO2):Â Experimental Aspects of QCM Theory and CO2Adsorption. Langmuir, 2004, 20, 3665-3673.	3.5	58
14	A New Apparatus for the Convenient Measurement of NMR Spectra in High-Pressure Liquids. Journal of Magnetic Resonance Series A, 1995, 113, 102-107.	1.6	54
15	Effect of fluorine substitution, pressure and temperature on the tautomeric equilibria of acetylacetonate Î²-diketones. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 2391-2394.	1.7	50
16	Review on thermochromic materials: development, characterization, and applications. Journal of Coatings Technology Research, 2022, 19, 377-402.	2.5	48
17	Effects of Pressure and Temperature on the Dynamics of Liquidtert-Butyl Alcohol. Journal of Physical Chemistry A, 1997, 101, 9564-9570.	2.5	42
18	Antibacterial and antiviral high-performance nanosystems to mitigate new SARS-CoV-2 variants of concern. Current Opinion in Biomedical Engineering, 2022, 21, 100363.	3.4	41

#	Article	IF	Citations
19	Infrared and Molecular Dynamics Study of D2O Rotational Relaxation in Supercritical CO2 and Xe. The Journal of Physical Chemistry, 1996, 100, 18327-18334.	2.9	36
20	A Polymer NMR Cell for the Study of High-Pressure and Supercritical Fluid Solutions. Analytical Chemistry, 2000, 72, 4230-4234.	6.5	36
21	Probing Transport and Microheterogeneous Solvent Structure in Acetonitrileâ^'Water Mixtures and Reversed-Phase Chromatographic Media by NMR Quadrupole Relaxation. Journal of the American Chemical Society, 2002, 124, 14210-14220.	13.7	33
22	Raman noncoincidence effect of the carbonyl stretching mode in compressed liquid cyclic carbonates. Journal of Chemical Physics, 1991, 94, 7486-7493.	3.0	30
23	In Situ NMRObservations of the Photolysis of Cymantrene and Methylcymantrene in Supercritical Fluids:Â A New Technique Using High-Pressure NMR. Journal of the American Chemical Society, 1997, 119, 10170-10177.	13.7	30
24	Highâ€pressure, capillary xâ€ray absorption fine structure cell for studies of liquid and supercritical fluid solutions. Review of Scientific Instruments, 1996, 67, 2843-2845.	1.3	27
25	Advanced green analytical chemistry for environmental pesticide detection. Current Opinion in Green and Sustainable Chemistry, 2021, 30, 100488.	5.9	27
26	Sugar Acetates as CO₂-philes: Molecular Interactions and Structure Aspects from Absorption Measurement Using Quartz Crystal Microbalance. Journal of Physical Chemistry B, 2010, 114, 3809-3817.	2.6	24
27	Perspectives of Manipulative and High-Performance Nanosystems to Manage Consequences of Emerging New Severe Acute Respiratory Syndrome Coronavirus 2 Variants. Frontiers in Nanotechnology, 2021, 3, .	4.8	21
28	Stabilization and growth of silver nanocrystals in dendritic polyol dispersions. Materials Letters, 2006, 60, 897-900.	2.6	19
29	Raman non-coincidence effect of the carbonyl stretching mode in confined polar liquids. Journal of Raman Spectroscopy, 1995, 26, 1019-1022.	2.5	15
30	Pressure and temperature study of the isotropic Raman spectra for the symmetric A1 vibrational modes of liquid furan. The Journal of Physical Chemistry, 1992, 96, 4282-4288.	2.9	14
31	Density and temperature study of the noncoincidence effect in liquid carbon disulfide. Chemical Physics Letters, 1994, 229, 82-86.	2.6	14
32	High Resolution1H NMR Structural Studies of Sucrose Octaacetate in Supercritical Carbon Dioxide. Chemistry - A European Journal, 2005, 11, 6266-6271.	3.3	13
33	High-pressure NMR study of metal complexes in supercritical fluids. Journal of Supercritical Fluids, 1995, 8, 250-254.	3.2	12
34	Development and Validation of Spectroscopic Methods for Monitoring Density Changes in Pressurized Gaseous and Supercritical Fluid Systems. Analytical Chemistry, 2002, 74, 1922-1927.	6.5	11
35	Crystallization and processing of carbohydrates using carbon dioxide. Green Chemistry, 2005, 7, 129.	9.0	11
36	Examination of Glass Transitions in CO2-Processed, Peracetylated Sugars Using Sum Frequency Generation Spectroscopy. Langmuir, 2006, 22, 7324-7330.	3.5	10

#	Article	IF	Citations
37	Reaction chemistries in supercritical fluid solutions. Journal of Separation Science, 1998, 10, 153-160.	1.0	9
38	Energy Storage in Earth-Abundant Dolomite Minerals. Applied Sciences (Switzerland), 2020, 10, 6679.	2.5	9
39	Sizing and Desizing of Cotton and Polyester Yarns Using Liquid and Supercritical Carbon Dioxide with Nonfluorous CO₂-Philes as Size Compounds. ACS Sustainable Chemistry and Engineering, 2018, 6, 12275-12280.	6.7	8
40	High-Pressure On-Line Photolysis with NMR Detection. Applied Spectroscopy, 1996, 50, 781-784.	2.2	6
41	Green processing: CO2-induced glassification of sucrose octaacetate and its implications in the spontaneous release of drug from drug-excipient composites. Journal of CO2 Utilization, 2021, 47, 101472.	6.8	3
42	Novel synthesis of amorphous CP@HfO2 nanomaterials for high-performance electrochemical sensing of 2-naphthol. Journal of Nanostructure in Chemistry, 2023, 13, 423-438.	9.1	3
43	Deuterium Nuclear Magnetic Resonance Spinâ˜Lattice Relaxation of Analytically Relevant Solvent Systems. Analytical Chemistry, 2002, 74, 5333-5336.	6.5	2
44	Dissolving Carbohydrates in CO2: Renewable Materials as CO2-philes. ACS Symposium Series, 2003, , 270-284.	0.5	2
45	Polar Attributes of Supercritical Carbon Dioxide. ChemInform, 2005, 36, no.	0.0	2
46	Effects of multilayer thin film coatings on different thermochromic materials for thermal storage applications. , 2021, , .		2
47	Maker Chemistry: Exploring Redox Reactions in Introductory Laboratory through Light-Emitting Diode Printed Circuit Board Fabrication. Journal of Chemical Education, 2020, 97, 490-496.	2.3	1
48	<title>Spectroscopic approaches for the study of high-pressure fluid systems</title>. , 2000, , .		0
49	Thermochemical energy storage using phosphatic pebbles. MRS Advances, 2021, 6, 575-582.	0.9	0
50	CO2-solvated liquefaction of polyethylene glycol (PEG): A novel, green process for the preparation of drug-excipient composites at low temperatures. Journal of CO2 Utilization, 2022, 59, 101971.	6.8	0