

Steven B Hawthorne

List of Publications by Year in descending order

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94
papers

5,817
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57631

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times ranked

3648
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparisons of Soxhlet extraction, pressurized liquid extraction, supercritical fluid extraction and subcritical water extraction for environmental solids: recovery, selectivity and effects on sample matrix. <i>Journal of Chromatography A</i> , 2000, 892, 421-433.	1.8	378
2	Quantitative Analysis of Fuel-Related Hydrocarbons in Surface Water and Wastewater Samples by Solid-Phase Microextraction. <i>Analytical Chemistry</i> , 1996, 68, 144-155.	3.2	203
3	A model for dynamic extraction using a supercritical fluid. <i>Journal of Supercritical Fluids</i> , 1990, 3, 143-149.	1.6	199
4	Advancing CO ₂ enhanced oil recovery and storage in unconventional oil play—Experimental studies on Bakken shales. <i>Applied Energy</i> , 2017, 208, 171-183.	5.1	197
5	Method for Determining the Solubilities of Hydrophobic Organics in Subcritical Water. <i>Analytical Chemistry</i> , 1998, 70, 1618-1621.	3.2	162
6	Passive sampling methods for contaminated sediments: Scientific rationale supporting use of freely dissolved concentrations. <i>Integrated Environmental Assessment and Management</i> , 2014, 10, 197-209.	1.6	153
7	Enhanced Oil Recovery in Liquid-Rich Shale Reservoirs: Laboratory to Field. <i>SPE Reservoir Evaluation and Engineering</i> , 2018, 21, 137-159.	1.1	147
8	Pilot-Scale Subcritical Water Remediation of Polycyclic Aromatic Hydrocarbon- and Pesticide-Contaminated Soil. <i>Environmental Science & Technology</i> , 2000, 34, 1542-1548.	4.6	142
9	Subcritical Water Chromatography with Flame Ionization Detection. <i>Analytical Chemistry</i> , 1997, 69, 623-627.	3.2	139
10	Class-Selective Extraction of Polar, Moderately Polar, and Nonpolar Organics from Hydrocarbon Wastes Using Subcritical Water. <i>Environmental Science & Technology</i> , 1997, 31, 430-437.	4.6	136
11	Hydrocarbon Mobilization Mechanisms from Upper, Middle, and Lower Bakken Reservoir Rocks Exposed to CO ₂ . , 2013, , .		132
12	Kinetic Study of Supercritical Fluid Extraction of Organic Contaminants from Heterogeneous Environmental Samples with Carbon Dioxide and Elevated Temperatures. <i>Analytical Chemistry</i> , 1995, 67, 1727-1736.	3.2	128
13	Comparing PAH Availability from Manufactured Gas Plant Soils and Sediments with Chemical and Biological Tests. 1. PAH Release during Water Desorption and Supercritical Carbon Dioxide Extraction. <i>Environmental Science & Technology</i> , 2002, 36, 4795-4803.	4.6	118
14	Solid-Phase Microextraction Measurement of Parent and Alkyl Polycyclic Aromatic Hydrocarbons in Milliliter Sediment Pore Water Samples and Determination of K _{DOC} Values. <i>Environmental Science & Technology</i> , 2005, 39, 2795-2803.	4.6	116
15	Solubility of Polycyclic Aromatic Hydrocarbons in Supercritical Carbon Dioxide from 313 K to 523 K and Pressures from 100 bar to 450 bar. <i>Journal of Chemical & Engineering Data</i> , 1996, 41, 779-786.	1.0	113
16	Selective extraction of oxygenates from savory and peppermint using subcritical water. <i>Flavour and Fragrance Journal</i> , 2001, 16, 64-73.	1.2	113
17	Extremely Slowly Desorbing Polycyclic Aromatic Hydrocarbons from Soot and Soot-like Materials: Evidence by Supercritical Fluid Extraction. <i>Environmental Science & Technology</i> , 2005, 39, 7889-7895.	4.6	109
18	Predicting PAH Bioaccumulation and Toxicity in Earthworms Exposed to Manufactured Gas Plant Soils with Solid-Phase Microextraction. <i>Environmental Science & Technology</i> , 2007, 41, 7472-7478.	4.6	109

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19	MEASURED PARTITIONING COEFFICIENTS FOR PARENT AND ALKYL POLYCYCLIC AROMATIC HYDROCARBONS IN 114 HISTORICALLY CONTAMINATED SEDIMENTS: PART 1. KOC VALUES. <i>Environmental Toxicology and Chemistry</i> , 2006, 25, 2901.	2.2	106
20	Correlating Selective Supercritical Fluid Extraction with Bioremediation Behavior of PAHs in a Field Treatment Plot. <i>Environmental Science & Technology</i> , 2000, 34, 4103-4110.	4.6	103
21	Thermodynamic and kinetic models for the extraction of essential oil from savory and polycyclic aromatic hydrocarbons from soil with hot (subcritical) water and supercritical CO ₂ . <i>Journal of Chromatography A</i> , 2002, 975, 175-188.	1.8	100
22	Coupled SFE-GC: A Rapid and Simple Technique for Extracting, Identifying, and Quantitating Organic Analytes from Solids and Sorbent Resins. <i>Journal of Chromatographic Science</i> , 1989, 27, 347-354.	0.7	99
23	Response to Comments on Adsorption versus Absorption of Polychlorinated Biphenyls onto Solid-Phase Microextraction Coatings. <i>Analytical Chemistry</i> , 2000, 72, 642-643.	3.2	99
24	MEASUREMENT OF TOTAL POLYCYCLIC AROMATIC HYDROCARBON CONCENTRATIONS IN SEDIMENTS AND TOXIC UNITS USED FOR ESTIMATING RISK TO BENTHIC INVERTEBRATES AT MANUFACTURED GAS PLANT SITES. <i>Environmental Toxicology and Chemistry</i> , 2006, 25, 287.	2.2	97
25	Rapid and Simple Capillary-Rise/Vanishing Interfacial Tension Method To Determine Crude Oil Minimum Miscibility Pressure: Pure and Mixed CO ₂ , Methane, and Ethane. <i>Energy & Fuels</i> , 2016, 30, 6365-6372.	2.5	93
26	Comparison of hydrodistillation and supercritical fluid extraction for the determination of essential oils in aromatic plants. <i>Journal of Chromatography A</i> , 1993, 634, 297-308.	1.8	91
27	Solubility of Liquid Organic Flavor and Fragrance Compounds in Subcritical (Hot/Liquid) Water from 298 K to 473 K. <i>Journal of Chemical & Engineering Data</i> , 2000, 45, 315-318.	1.0	89
28	Predicting Bioavailability of Sediment Polycyclic Aromatic Hydrocarbons to <i>Hyaella azteca</i> using Equilibrium Partitioning, Supercritical Fluid Extraction, and Pore Water Concentrations. <i>Environmental Science & Technology</i> , 2007, 41, 6297-6304.	4.6	87
29	Effect of SFE Flow Rate on Extraction Rates: Classifying Sample Extraction Behavior. <i>Analytical Chemistry</i> , 1995, 67, 2723-2732.	3.2	85
30	Measuring Picogram per Liter Concentrations of Freely Dissolved Parent and Alkyl PAHs (PAH-34), Using Passive Sampling with Polyoxymethylene. <i>Analytical Chemistry</i> , 2011, 83, 6754-6761.	3.2	80
31	PAH Release during Water Desorption, Supercritical Carbon Dioxide Extraction, and Field Bioremediation. <i>Environmental Science & Technology</i> , 2001, 35, 4577-4583.	4.6	78
32	Pilot-Scale Destruction of TNT, RDX, and HMX on Contaminated Soils Using Subcritical Water. <i>Environmental Science & Technology</i> , 2000, 34, 3224-3228.	4.6	75
33	Solubility of Liquid Organics of Environmental Interest in Subcritical (Hot/Liquid) Water from 298 K to 473 K. <i>Journal of Chemical & Engineering Data</i> , 2000, 45, 78-81.	1.0	75
34	Improving Oil Recovery by Use of Carbon Dioxide in the Bakken Unconventional System: A Laboratory Investigation. <i>SPE Reservoir Evaluation and Engineering</i> , 2017, 20, 602-612.	1.1	73
35	Determining PCB Sorption/Desorption Behavior on Sediments Using Selective Supercritical Fluid Extraction. 1. Desorption from Historically Contaminated Samples. <i>Environmental Science & Technology</i> , 1999, 33, 2193-2203.	4.6	70
36	Measuring Low Picogram Per Liter Concentrations of Freely Dissolved Polychlorinated Biphenyls in Sediment Pore Water Using Passive Sampling with Polyoxymethylene. <i>Analytical Chemistry</i> , 2009, 81, 9472-9480.	3.2	65

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37	Introducing selective supercritical fluid extraction as a new tool for determining sorption/desorption behavior and bioavailability of persistent organic pollutants in sediment. Journal of Proteomics, 2000, 43, 295-311.	2.4	61
38	Comparison of polymeric samplers for accurately assessing PCBs in pore waters. Environmental Toxicology and Chemistry, 2011, 30, 1288-1296.	2.2	61
39	The Effect of solubility on the kinetics of dynamic supercritical-fluid extraction. Journal of Supercritical Fluids, 1992, 5, 207-212.	1.6	60
40	Measured partition coefficients for parent and alkyl polycyclic aromatic hydrocarbons in 114 historically contaminated sediments: Part 2. Testing the K_{OC} K_{BC} two carbon- α -type model. Environmental Toxicology and Chemistry, 2007, 26, 2505-2516.	2.2	58
41	Determination of Aromatic Compounds in Water by Solid Phase Microextraction and Ultraviolet Absorption Spectroscopy. 1. Methodology. Analytical Chemistry, 1997, 69, 1197-1203.	3.2	57
42	Enhanced Oil Recovery in Liquid-Rich Shale Reservoirs: Laboratory to Field. , 2015, , .		55
43	Toluene Solubility in Water and Organic Partitioning from Gasoline and Diesel Fuel into Water at Elevated Temperatures and Pressures. Journal of Chemical & Engineering Data, 1997, 42, 908-913.	1.0	53
44	Determination of Solubilities of Organic Solutes in Supercritical CO ₂ by Online Flame Ionization Detection. Analytical Chemistry, 1995, 67, 273-279.	3.2	49
45	Predicting Pore Water EPA-34 PAH Concentrations and Toxicity in Pyrogenic-Impacted Sediments Using Pyrene Content. Environmental Science & Technology, 2011, 45, 5139-5146.	4.6	48
46	Solid-Phase-Microextraction Measurement of 62 Polychlorinated Biphenyl Congeners in Milliliter Sediment Pore Water Samples and Determination of DOC Values. Analytical Chemistry, 2009, 81, 6936-6943.	3.2	46
47	Supercritical fluid extraction with carbon dioxide for the determination of total petroleum hydrocarbons in soil. Fuel, 1993, 72, 1015-1023.	3.4	45
48	Determining PCB Sorption/Desorption Behavior on Sediments Using Selective Supercritical Fluid Extraction. 3. Sorption from Water. Environmental Science & Technology, 1999, 33, 3152-3159.	4.6	45
49	Review of polyoxymethylene passive sampling methods for quantifying freely dissolved porewater concentrations of hydrophobic organic contaminants. Environmental Toxicology and Chemistry, 2015, 34, 710-720.	2.2	42
50	Vaporization of Polycyclic Aromatic Hydrocarbons (PAHs) from Sediments at Ambient Conditions. Environmental Science & Technology, 2000, 34, 4348-4353.	4.6	41
51	Particle-Scale Measurement of PAH Aqueous Equilibrium Partitioning in Impacted Sediments. Environmental Science & Technology, 2010, 44, 1204-1210.	4.6	37
52	SUPERCritical CARBON DIOXIDE EXTRACTION AS A PREDICTOR OF POLYCYCLIC AROMATIC HYDROCARBON BIOACCUMULATION AND TOXICITY BY EARTHWORMS IN MANUFACTURED-GAS PLANT SITE SOILS. Environmental Toxicology and Chemistry, 2007, 26, 1809.	2.2	36
53	Evidence for Very Tight Sequestration of BTEX Compounds in Manufactured Gas Plant Soils Based on Selective Supercritical Fluid Extraction and Soil/Water Partitioning. Environmental Science & Technology, 2003, 37, 3587-3594.	4.6	33
54	Improving Predictability of Sediment-Porewater Partitioning Models using Trends Observed with PCB-Contaminated Field Sediments. Environmental Science & Technology, 2011, 45, 7365-7371.	4.6	33

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55	Determining PCB Sorption/Desorption Behavior on Sediments Using Selective Supercritical Fluid Extraction. 2. Describing PCB Extraction with Simple Diffusion Models. <i>Environmental Science & Technology</i> , 1999, 33, 2204-2212.	4.6	32
56	Greatly reduced bioavailability and toxicity of polycyclic aromatic hydrocarbons to <i>Hyaella azteca</i> in sediments from manufactured gas plant sites. <i>Environmental Toxicology and Chemistry</i> , 2007, 26, 1146-1157.	2.2	31
57	Vapor Phase and Particulate Associated Pesticides and PCB Concentrations in Eastern North Dakota Air Samples. <i>Journal of Environmental Quality</i> , 1996, 25, 594-600.	1.0	30
58	Persistence and Biodegradation of Monoethanolamine and 2-Propanolamine at an Abandoned Industrial Site. <i>Environmental Science & Technology</i> , 2005, 39, 3639-3645.	4.6	28
59	Measured Crude Oil MMPs with Pure and Mixed CO ₂ , Methane, and Ethane, and Their Relevance to Enhanced Oil Recovery from Middle Bakken and Bakken Shales. , 2017, , .		28
60	An evaluation of the ability of chemical measurements to predict polycyclic aromatic hydrocarbon contaminated sediment toxicity to <i>Hyaella azteca</i> . <i>Environmental Toxicology and Chemistry</i> , 2010, 29, 1545-1550.	2.2	26
61	Effect of the matrix on the kinetics of dynamic supercritical fluid extraction. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1995, 91, 1333.	1.7	25
62	Experimental Determinations of Minimum Miscibility Pressures Using Hydrocarbon Gases and CO ₂ for Crude Oils from the Bakken and Cut Bank Oil Reservoirs. <i>Energy & Fuels</i> , 2020, 34, 6148-6157.	2.5	25
63	Zero-valent metal accelerators for the dechlorination of pentachlorophenol (PCP) in subcritical water. <i>Green Chemistry</i> , 2002, 4, 17-23.	4.6	24
64	Hydrocarbon Recovery from Williston Basin Shale and Mudrock Cores with Supercritical CO ₂ : Part 1. Method Validation and Recoveries from Cores Collected across the Basin. <i>Energy & Fuels</i> , 2019, 33, 6857-6866.	2.5	24
65	Laser-Induced Fluorescence Coupled with Solid-Phase Microextraction for In Situ Determination of PAHs in Sediment Pore Water. <i>Environmental Science & Technology</i> , 2008, 42, 8021-8026.	4.6	23
66	Coupled solid phase extraction-supercritical fluid extraction-on-line gas chromatography of explosives from water. <i>Journal of High Resolution Chromatography</i> , 1993, 16, 473-478.	2.0	20
67	REDUCTION IN ACUTE TOXICITY OF SOILS TO TERRESTRIAL OLIGOCHAETES FOLLOWING THE REMOVAL OF BIOAVAILABLE POLYCYCLIC AROMATIC HYDROCARBONS WITH MILD SUPERCRITICAL CARBON DIOXIDE EXTRACTION. <i>Environmental Toxicology and Chemistry</i> , 2005, 24, 1893.	2.2	19
68	Comparison of alkaline industrial wastes for aqueous mineral carbon sequestration through a parallel reactivity study. <i>Waste Management</i> , 2014, 34, 1815-1822.	3.7	19
69	Integrating Petrographic and Petrophysical Analyses with CO ₂ Permeation and Oil Extraction and Recovery in the Bakken Tight Oil Formation. , 2017, , .		19
70	Evaluation of PCB bioaccumulation by <i>Lumbriculus variegatus</i> in field collected sediments. <i>Environmental Toxicology and Chemistry</i> , 2013, 32, 1495-1503.	2.2	18
71	Field Test of CO ₂ Injection in a Vertical Middle Bakken Well to Evaluate the Potential for Enhanced Oil Recovery and CO ₂ Storage. , 2018, , .		18
72	Hydrocarbon Recovery from Williston Basin Shale and Mudrock Cores with Supercritical CO ₂ : 2. Mechanisms That Control Oil Recovery Rates and CO ₂ Permeation. <i>Energy & Fuels</i> , 2019, 33, 6867-6877.	2.5	18

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73	Comparison of CO ₂ and Produced Gas Hydrocarbons to Recover Crude Oil from Williston Basin Shale and Mudrock Cores at 10.3, 17.2, and 34.5 MPa and 110 °C. <i>Energy & Fuels</i> , 2021, 35, 6658-6672.	2.5	17
74	Preparation of deuterated aromatic hydrocarbons, heteroatom-containing aromatics, and polychlorinated biphenyls as internal standards for GC/MS analysis. <i>Fresenius Zeitschrift für Analytische Chemie</i> , 1989, 334, 421-426.	0.7	16
75	Lab and Reservoir Study of Produced Hydrocarbon Molecular Weight Selectivity during CO ₂ Enhanced Oil Recovery. <i>Energy & Fuels</i> , 2018, 32, 9070-9080.	2.5	16
76	A Rapid Method for Determining CO ₂ /oil MMP and Visual Observations of CO ₂ /Oil Interactions at Reservoir Conditions. <i>Energy Procedia</i> , 2014, 63, 7724-7731.	1.8	13
77	A comparison of crude oil hydrocarbon mobilization by vaporization gas drive into methane, ethane, and carbon dioxide at 15.6 MPa and 42 °C. <i>Fuel</i> , 2019, 249, 392-399.	3.4	13
78	Comparison of CO ₂ and Produced Gas Hydrocarbons to Dissolve and Mobilize Bakken Crude Oil at 10.3, 20.7, and 34.5 MPa and 110 °C. <i>Energy & Fuels</i> , 2020, 34, 10882-10893.	2.5	12
79	Heterogenic catalytic hydrolysis and analysis of natural pyrethrins in subcritical water coupled with solid phase microextraction (SPME) and GC-MS. <i>Fresenius' Journal of Analytical Chemistry</i> , 1999, 364, 625-630.	1.5	11
80	The Influence of Organics on Supercritical CO ₂ Migration in Organic-Rich Shales. , 2018, , .		10
81	Improving Risk Assessments for Manufactured Gas Plant Soils by Measuring PAH Availability. <i>Integrated Environmental Assessment and Management</i> , 2005, 1, 259.	1.6	9
82	Sediment Bioaccumulation Test with <i>Lumbriculus variegatus</i> : Effects of Feeding. <i>Archives of Environmental Contamination and Toxicology</i> , 2015, 68, 696-706.	2.1	8
83	Report on the First Rich Gas EOR Cyclic Multiwell Huff N Puff Pilot in the Bakken Tight Oil Play. , 2020, , .		8
84	Assessment of supercritical fluid extraction use in whole sediment toxicity identification evaluations. <i>Environmental Toxicology and Chemistry</i> , 2011, 30, 819-827.	2.2	7
85	CO ₂ -Enhanced Oil Recovery Mechanism in Canadian Bakken Shale. <i>Minerals (Basel, Switzerland)</i> , 2022, 12, 779.	0.8	7
86	Analytical-Scale Extraction of Environmental Samples Using Supercritical Fluids. <i>ACS Symposium Series</i> , 1992, , 206-221.	0.5	4
87	Comment on "Comprehensive Profiling of Coal Tar and Crude Oil to Obtain Mass Spectra and Retention Indices for Alkylated PAH Shows Why Current Methods Err". <i>Environmental Science & Technology</i> , 2012, 46, 11475-11476.	4.6	4
88	Investigating differential binding of polychlorinated dibenzo-p-dioxins/dibenzofurans in soil and soil components using selective supercritical fluid extraction. <i>Chemosphere</i> , 2012, 88, 261-269.	4.2	4
89	Supercritical Fluid Extraction of Polar Analytes Using Modified CO ₂ and In Situ Chemical Derivation. <i>ACS Symposium Series</i> , 1992, , 165-178.	0.5	3
90	Tracing Contributions of Benzene from Outdoor to Indoor Air. <i>Environmental Forensics</i> , 2008, 9, 96-106.	1.3	3

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91	Response to Comment on “More of EPA’s SPARC Online Calculator” The Need for High Quality Predictions of Chemical Properties. Environmental Science & Technology, 2010, 44, 7746-7747.	4.6	3
92	Turtles and Snakes: Evidence for Molecular Shape-Selective Migration of Crude Oil Hydrocarbons in the Bakken Petroleum System. Energy & Fuels, 2021, 35, 10584-10596.	2.5	2
93	Predicting toxicity to <i>Hyalella azteca</i> in pyrogenic-impacted sediments-Do we need to analyze for all 34 PAHs?. Integrated Environmental Assessment and Management, 2016, 12, 493-499.	1.6	1
94	Subsurface Transport and Fate of Natural Gas Processing Wastes: Implications for Risk Assessment and Remediation. , 2001, , .		0