

# Steven B Hawthorne

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91  
papers

4,897  
citations

43  
h-index

68  
g-index

94  
ext. papers

5,297  
ext. citations

6.1  
avg, IF

5.37  
L-index

#	Paper	IF	Citations
91	Comparison of CO <sub>2</sub> 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 &amp; Fuels</i> , <b>2021</b> , 35, 6658-6672	4.1	7
90	Turtles and Snakes: Evidence for Molecular Shape-Selective Migration of Crude Oil Hydrocarbons in the Bakken Petroleum System. <i>Energy &amp; Fuels</i> , <b>2021</b> , 35, 10584-10596	4.1	1
89	Experimental Determinations of Minimum Miscibility Pressures Using Hydrocarbon Gases and CO <sub>2</sub> for Crude Oils from the Bakken and Cut Bank Oil Reservoirs. <i>Energy &amp; Fuels</i> , <b>2020</b> , 34, 6148-6157	4.1	12
88	Comparison of CO <sub>2</sub> 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 &amp; Fuels</i> , <b>2020</b> , 34, 10882-10893	4.1	5
87	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> , <b>2019</b> , 249, 392-399	7.1	8
86	Hydrocarbon Recovery from Williston Basin Shale and Mudrock Cores with Supercritical CO <sub>2</sub> : 2. Mechanisms That Control Oil Recovery Rates and CO <sub>2</sub> Permeation. <i>Energy &amp; Fuels</i> , <b>2019</b> , 33, 6867-6877	4.1	12
85	Hydrocarbon Recovery from Williston Basin Shale and Mudrock Cores with Supercritical CO <sub>2</sub> : Part 1. Method Validation and Recoveries from Cores Collected across the Basin. <i>Energy &amp; Fuels</i> , <b>2019</b> , 33, 6857-6866	4.1	14
84	Enhanced Oil Recovery in Liquid-Rich Shale Reservoirs: Laboratory to Field. <i>SPE Reservoir Evaluation and Engineering</i> , <b>2018</b> , 21, 137-159	2.3	77
83	Lab and Reservoir Study of Produced Hydrocarbon Molecular Weight Selectivity during CO <sub>2</sub> Enhanced Oil Recovery. <i>Energy &amp; Fuels</i> , <b>2018</b> , 32, 9070-9080	4.1	8
82	The Influence of Organics on Supercritical CO <sub>2</sub> Migration in Organic-Rich Shales <b>2018</b> ,		8
81	Field Test of CO <sub>2</sub> Injection in a Vertical Middle Bakken Well to Evaluate the Potential for Enhanced Oil Recovery and CO <sub>2</sub> Storage <b>2018</b> ,		11
80	Improving Oil Recovery by Use of Carbon Dioxide in the Bakken Unconventional System: A Laboratory Investigation. <i>SPE Reservoir Evaluation and Engineering</i> , <b>2017</b> , 20, 602-612	2.3	53
79	Measured Crude Oil MMPs with Pure and Mixed CO <sub>2</sub> , Methane, and Ethane, and Their Relevance to Enhanced Oil Recovery from Middle Bakken and Bakken Shales <b>2017</b> ,		20
78	Integrating Petrographic and Petrophysical Analyses with CO <sub>2</sub> Permeation and Oil Extraction and Recovery in the Bakken Tight Oil Formation <b>2017</b> ,		14
77	Advancing CO <sub>2</sub> enhanced oil recovery and storage in unconventional oil play: Experimental studies on Bakken shales. <i>Applied Energy</i> , <b>2017</b> , 208, 171-183	10.7	130
76	Predicting toxicity to <i>Hyalella azteca</i> in pyrogenic-impacted sediments-Do we need to analyze for all 34 PAHs?. <i>Integrated Environmental Assessment and Management</i> , <b>2016</b> , 12, 493-9	2.5	1
75	Rapid and Simple Capillary-Rise/Disappearing Interfacial Tension Method To Determine Crude Oil Minimum Miscibility Pressure: Pure and Mixed CO <sub>2</sub> , Methane, and Ethane. <i>Energy &amp; Fuels</i> , <b>2016</b> , 30, 6365-6372	4.1	61

74	Enhanced Oil Recovery in Liquid-Rich Shale Reservoirs: Laboratory to Field <b>2015</b> ,		44
73	Sediment bioaccumulation test with <i>Lumbriculus variegatus</i> : effects of feeding. <i>Archives of Environmental Contamination and Toxicology</i> , <b>2015</b> , 68, 696-706	3.2	6
72	Review of polyoxymethylene passive sampling methods for quantifying freely dissolved porewater concentrations of hydrophobic organic contaminants. <i>Environmental Toxicology and Chemistry</i> , <b>2015</b> , 34, 710-20	3.8	36
71	Comparison of alkaline industrial wastes for aqueous mineral carbon sequestration through a parallel reactivity study. <i>Waste Management</i> , <b>2014</b> , 34, 1815-22	8.6	16
70	A Rapid Method for Determining CO <sub>2</sub> /oil MMP and Visual Observations of CO <sub>2</sub> /Oil Interactions at Reservoir Conditions. <i>Energy Procedia</i> , <b>2014</b> , 63, 7724-7731	2.3	12
69	Passive sampling methods for contaminated sediments: scientific rationale supporting use of freely dissolved concentrations. <i>Integrated Environmental Assessment and Management</i> , <b>2014</b> , 10, 197-209	2.5	122
68	Evaluation of PCB bioaccumulation by <i>Lumbriculus variegatus</i> in field-collected sediments. <i>Environmental Toxicology and Chemistry</i> , <b>2013</b> , 32, 1495-503	3.8	10
67	Hydrocarbon Mobilization Mechanisms from Upper, Middle, and Lower Bakken Reservoir Rocks Exposed to CO <sub>2</sub> <b>2013</b> ,		87
66	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 &amp; Technology</i> , <b>2012</b> , 46, 11475-6; discussion 11477-8	10.3	4
65	Investigating differential binding of polychlorinated dibenzo-p-dioxins/dibenzofurans in soil and soil components using selective supercritical fluid extraction. <i>Chemosphere</i> , <b>2012</b> , 88, 261-9	8.4	3
64	Measuring picogram per liter concentrations of freely dissolved parent and alkyl PAHs (PAH-34), using passive sampling with polyoxymethylene. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 6754-61	7.8	69
63	Assessment of supercritical fluid extraction use in whole sediment toxicity identification evaluations. <i>Environmental Toxicology and Chemistry</i> , <b>2011</b> , 30, 819-27	3.8	6
62	Comparison of polymeric samplers for accurately assessing PCBs in pore waters. <i>Environmental Toxicology and Chemistry</i> , <b>2011</b> , 30, 1288-96	3.8	57
61	Improving predictability of sediment-porewater partitioning models using trends observed with PCB-contaminated field sediments. <i>Environmental Science &amp; Technology</i> , <b>2011</b> , 45, 7365-71	10.3	29
60	Predicting pore water EPA-34 PAH concentrations and toxicity in pyrogenic-impacted sediments using pyrene content. <i>Environmental Science &amp; Technology</i> , <b>2011</b> , 45, 5139-46	10.3	45
59	Particle-scale measurement of PAH aqueous equilibrium partitioning in impacted sediments. <i>Environmental Science &amp; Technology</i> , <b>2010</b> , 44, 1204-10	10.3	34
58	Response to Comment on "More of EPA's SPARC Online Calculator" The Need for High Quality Predictions of Chemical Properties <i>Environmental Science &amp; Technology</i> , <b>2010</b> , 44, 7746-7747	10.3	3
57	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> , <b>2010</b> , 29, 1545-50	3.8	25

56	Measuring low picogram per liter concentrations of freely dissolved polychlorinated biphenyls in sediment pore water using passive sampling with polyoxymethylene. <i>Analytical Chemistry</i> , <b>2009</b> , 81, 9472-80	7.8	58
55	Solid-phase-microextraction measurement of 62 polychlorinated biphenyl congeners in milliliter sediment pore water samples and determination of K(DOC) values. <i>Analytical Chemistry</i> , <b>2009</b> , 81, 6936-43	7.8	41
54	Laser-induced fluorescence coupled with solid-phase microextraction for in situ determination of PAHs in sediment pore water. <i>Environmental Science &amp; Technology</i> , <b>2008</b> , 42, 8021-6	10.3	17
53	Tracing Contributions of Benzene from Outdoor to Indoor Air. <i>Environmental Forensics</i> , <b>2008</b> , 9, 96-106	1.6	2
52	Predicting bioavailability of sediment polycyclic aromatic hydrocarbons to <i>Hyalella azteca</i> using equilibrium partitioning, supercritical fluid extraction, and pore water concentrations. <i>Environmental Science &amp; Technology</i> , <b>2007</b> , 41, 6297-304	10.3	79
51	Predicting PAH bioaccumulation and toxicity in earthworms exposed to manufactured gas plant soils with solid-phase microextraction. <i>Environmental Science &amp; Technology</i> , <b>2007</b> , 41, 7472-8	10.3	102
50	Greatly reduced bioavailability and toxicity of polycyclic aromatic hydrocarbons to <i>Hyalella azteca</i> in sediments from manufactured-gas plant sites. <i>Environmental Toxicology and Chemistry</i> , <b>2007</b> , 26, 1146-57	3.8	28
49	Supercritical carbon dioxide extraction as a predictor of polycyclic aromatic hydrocarbon bioaccumulation and toxicity by earthworms in manufactured-gas plant site soils. <i>Environmental Toxicology and Chemistry</i> , <b>2007</b> , 26, 1809-17	3.8	34
48	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-type model. <i>Environmental Toxicology and Chemistry</i> , <b>2007</b> , 26, 2505-16	3.8	52
47	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> , <b>2006</b> , 25, 287-96	3.8	90
46	Measured partitioning coefficients for parent and alkyl polycyclic aromatic hydrocarbons in 114 historically contaminated sediments: part 1. K(OC) values. <i>Environmental Toxicology and Chemistry</i> , <b>2006</b> , 25, 2901-11	3.8	87
45	Extremely slowly desorbing polycyclic aromatic hydrocarbons from soot and soot-like materials: evidence by supercritical fluid extraction. <i>Environmental Science &amp; Technology</i> , <b>2005</b> , 39, 7889-95	10.3	106
44	Persistence and biodegradation of monoethanolamine and 2-propanolamine at an abandoned industrial site. <i>Environmental Science &amp; Technology</i> , <b>2005</b> , 39, 3639-45	10.3	24
43	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 &amp; Technology</i> , <b>2005</b> , 39, 2795-803	10.3	112
42	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> , <b>2005</b> , 24, 1893-5	3.8	19
41	Improving risk assessments for manufactured gas plant soils by measuring PAH availability. <i>Integrated Environmental Assessment and Management</i> , <b>2005</b> , 1, 259-66	2.5	7
40	Evidence for very tight sequestration of BTEX compounds in manufactured gas plant soils based on selective supercritical fluid extraction and soil/water partitioning. <i>Environmental Science &amp; Technology</i> , <b>2003</b> , 37, 3587-94	10.3	29
39	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 <sub>2</sub> . <i>Journal of Chromatography A</i> , <b>2002</b> , 975, 175-88	4.5	82

38	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 &amp; Technology</i> , <b>2002</b> , 36, 4795-803	10.3	111
37	Zero-valent metal accelerators for the dechlorination of pentachlorophenol (PCP) in subcritical water. <i>Green Chemistry</i> , <b>2002</b> , 4, 17-23	10	22
36	Selective extraction of oxygenates from savory and peppermint using subcritical water. <i>Flavour and Fragrance Journal</i> , <b>2001</b> , 16, 64-73	2.5	94
35	PAH release during water desorption, supercritical carbon dioxide extraction, and field bioremediation. <i>Environmental Science &amp; Technology</i> , <b>2001</b> , 35, 4577-83	10.3	73
34	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> , <b>2000</b> , 892, 421-33	4.5	322
33	Introducing selective supercritical fluid extraction as a new tool for determining sorption/desorption behavior and bioavailability of persistent organic pollutants in sediment. <i>Journal of Proteomics</i> , <b>2000</b> , 43, 295-311		56
32	Pilot-Scale Destruction of TNT, RDX, and HMX on Contaminated Soils Using Subcritical Water. <i>Environmental Science &amp; Technology</i> , <b>2000</b> , 34, 3224-3228	10.3	70
31	Correlating Selective Supercritical Fluid Extraction with Bioremediation Behavior of PAHs in a Field Treatment Plot. <i>Environmental Science &amp; Technology</i> , <b>2000</b> , 34, 4103-4110	10.3	99
30	Response to Comments on Adsorption versus Absorption of Polychlorinated Biphenyls onto Solid-Phase Microextraction Coatings. <i>Analytical Chemistry</i> , <b>2000</b> , 72, 642-643	7.8	93
29	Pilot-Scale Subcritical Water Remediation of Polycyclic Aromatic Hydrocarbon- and Pesticide-Contaminated Soil. <i>Environmental Science &amp; Technology</i> , <b>2000</b> , 34, 1542-1548	10.3	127
28	Solubility of Liquid Organics of Environmental Interest in Subcritical (Hot/Liquid) Water from 298 K to 473 K. <i>Journal of Chemical &amp; Engineering Data</i> , <b>2000</b> , 45, 78-81	2.8	66
27	Vaporization of Polycyclic Aromatic Hydrocarbons (PAHs) from Sediments at Ambient Conditions. <i>Environmental Science &amp; Technology</i> , <b>2000</b> , 34, 4348-4353	10.3	33
26	Solubility of Liquid Organic Flavor and Fragrance Compounds in Subcritical (Hot/Liquid) Water from 298 K to 473 K. <i>Journal of Chemical &amp; Engineering Data</i> , <b>2000</b> , 45, 315-318	2.8	76
25	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> , <b>1999</b> , 364, 625-630		11
24	Determining PCB Sorption/Desorption Behavior on Sediments Using Selective Supercritical Fluid Extraction. 2. Describing PCB Extraction with Simple Diffusion Models. <i>Environmental Science &amp; Technology</i> , <b>1999</b> , 33, 2204-2212	10.3	30
23	Determining PCB Sorption/Desorption Behavior on Sediments Using Selective Supercritical Fluid Extraction. 1. Desorption from Historically Contaminated Samples. <i>Environmental Science &amp; Technology</i> , <b>1999</b> , 33, 2193-2203	10.3	62
22	Determining PCB Sorption/Desorption Behavior on Sediments Using Selective Supercritical Fluid Extraction. 3. Sorption from Water. <i>Environmental Science &amp; Technology</i> , <b>1999</b> , 33, 3152-3159	10.3	42
21	Method for determining the solubilities of hydrophobic organics in subcritical water. <i>Analytical Chemistry</i> , <b>1998</b> , 70, 1618-21	7.8	149

20	Class-Selective Extraction of Polar, Moderately Polar, and Nonpolar Organics from Hydrocarbon Wastes Using Subcritical Water. <i>Environmental Science &amp; Technology</i> , <b>1997</b> , 31, 430-437	10.3	121
19	Subcritical Water Chromatography with Flame Ionization Detection. <i>Analytical Chemistry</i> , <b>1997</b> , 69, 623-628		125
18	Determination of Aromatic Compounds in Water by Solid Phase Microextraction and Ultraviolet Absorption Spectroscopy. 1. Methodology. <i>Analytical Chemistry</i> , <b>1997</b> , 69, 1197-1203	7.8	47
17	Toluene Solubility in Water and Organic Partitioning from Gasoline and Diesel Fuel into Water at Elevated Temperatures and Pressures. <i>Journal of Chemical &amp; Engineering Data</i> , <b>1997</b> , 42, 908-913	2.8	43
16	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 &amp; Engineering Data</i> , <b>1996</b> , 41, 779-786	2.8	103
15	Quantitative analysis of fuel-related hydrocarbons in surface water and wastewater samples by solid-phase microextraction. <i>Analytical Chemistry</i> , <b>1996</b> , 68, 144-55	7.8	181
14	Vapor-Phase and Particulate-Associated Pesticides and PCB Concentrations in Eastern North Dakota Air Samples. <i>Journal of Environmental Quality</i> , <b>1996</b> , 25, 594-600	3.4	24
13	Kinetic Study of Supercritical Fluid Extraction of Organic Contaminants from Heterogeneous Environmental Samples with Carbon Dioxide and Elevated Temperatures. <i>Analytical Chemistry</i> , <b>1995</b> , 67, 1727-1736	7.8	111
12	Effect of SFE Flow Rate on Extraction Rates: Classifying Sample Extraction Behavior. <i>Analytical Chemistry</i> , <b>1995</b> , 67, 2723-2732	7.8	76
11	Determination of Solubilities of Organic Solutes in Supercritical CO <sub>2</sub> by Online Flame Ionization Detection. <i>Analytical Chemistry</i> , <b>1995</b> , 67, 273-279	7.8	42
10	Effect of the matrix on the kinetics of dynamic supercritical fluid extraction. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1995</b> , 91, 1333		24
9	Supercritical fluid extraction with carbon dioxide for the determination of total petroleum hydrocarbons in soil. <i>Fuel</i> , <b>1993</b> , 72, 1015-1023	7.1	37
8	Coupled solid phase extraction-supercritical fluid extraction on-line gas chromatography of explosives from water. <i>Journal of High Resolution Chromatography</i> , <b>1993</b> , 16, 473-478		19
7	Comparison of hydrodistillation and supercritical fluid extraction for the determination of essential oils in aromatic plants. <i>Journal of Chromatography A</i> , <b>1993</b> , 634, 297-308	4.5	74
6	Supercritical Fluid Extraction of Polar Analytes Using Modified CO <sub>2</sub> and In Situ Chemical Derivation. <i>ACS Symposium Series</i> , <b>1992</b> , 165-178	0.4	2
5	Analytical-Scale Extraction of Environmental Samples Using Supercritical Fluids. <i>ACS Symposium Series</i> , <b>1992</b> , 206-221	0.4	2
4	The Effect of solubility on the kinetics of dynamic supercritical-fluid extraction. <i>Journal of Supercritical Fluids</i> , <b>1992</b> , 5, 207-212	4.2	49
3	A model for dynamic extraction using a supercritical fluid. <i>Journal of Supercritical Fluids</i> , <b>1990</b> , 3, 143-149.	4.2	158

- 2 Coupled SFE-GC: A Rapid and Simple Technique for Extracting, Identifying, and Quantitating Organic Analytes from Solids and Sorbent Resins. *Journal of Chromatographic Science*, **1989**, 27, 347-354<sup>1,4</sup> 86
- 1 Preparation of deuterated aromatic hydrocarbons, heteroatom-containing aromatics, and polychlorinated biphenyls as internal standards for GC/MS analysis. *Fresenius Zeitschrift für Analytische Chemie*, **1989**, 334, 421-426 15