

Michal Roth

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Comparison of two different solvents employed for pressurised fluid extraction of stevioside from <i>Stevia rebaudiana</i> : methanol versus water. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 388, 1847-1857.	1.9	85
2	Distribution of sulfur-containing aromatics between [hmim][Tf2N] and supercritical CO ₂ : a case study for deep desulfurization of oil refinery streams by extraction with ionic liquids. <i>Green Chemistry</i> , 2006, 8, 70-77.	4.6	66
3	Partitioning behaviour of organic compounds between ionic liquids and supercritical fluids. <i>Journal of Chromatography A</i> , 2009, 1216, 1861-1880.	1.8	56
4	Solubility of Solid Polycyclic Aromatic Hydrocarbons in Pressurized Hot Water at Temperatures from 313 K to the Melting Point. <i>Journal of Chemical & Engineering Data</i> , 2006, 51, 616-622.	1.0	45
5	Solubility of Solid Polycyclic Aromatic Hydrocarbons in Pressurized Hot Water: A Correlation with Pure Component Properties. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 4454-4460.	1.8	40
6	Aqueous solubility data for pressurized hot water extraction for solid heterocyclic analogs of anthracene, phenanthrene and fluorene. <i>Journal of Chromatography A</i> , 2007, 1140, 195-204.	1.8	36
7	Direct continuous supercritical fluid extraction as a novel method of wine analysis. <i>Journal of Chromatography A</i> , 2003, 1002, 13-23.	1.8	34
8	Zwitterionic silica-based monolithic capillary columns for isocratic and gradient hydrophilic interaction liquid chromatography. <i>Journal of Chromatography A</i> , 2012, 1270, 178-185.	1.8	33
9	Separation of Methicillin-Resistant from Methicillin-Susceptible <i>Staphylococcus aureus</i> by Electrophoretic Methods in Fused Silica Capillaries Etched with Supercritical Water. <i>Analytical Chemistry</i> , 2014, 86, 9701-9708.	3.2	32
10	Thermodynamics of retention in supercritical fluid chromatography: a refined model. <i>The Journal of Physical Chemistry</i> , 1990, 94, 4309-4314.	2.9	30
11	Partition Coefficients of Low-Volatility Solutes in the Ionic Liquid 1-n-Butyl-3-methylimidazolium Hexafluorophosphate-Supercritical CO ₂ System from Chromatographic Retention Measurements. <i>Journal of Physical Chemistry B</i> , 2004, 108, 11244-11249.	1.2	29
12	Antioxidant activity of grape skin aqueous extracts from pressurized hot water extraction combined with electron paramagnetic resonance spectroscopy. <i>Talanta</i> , 2011, 85, 2233-2240.	2.9	29
13	Solubilities of Adamantane and Diamantane in Pressurized Hot Water. <i>Journal of Chemical & Engineering Data</i> , 2008, 53, 816-819.	1.0	28
14	Determination of methicillin-resistant and methicillin-susceptible <i>Staphylococcus aureus</i> bacteria in blood by capillary zone electrophoresis. <i>Analytica Chimica Acta</i> , 2015, 868, 67-72.	2.6	28
15	Thermodynamics of poly(dimethylsiloxane)-alkane systems by gas-liquid chromatography. <i>Macromolecules</i> , 1986, 19, 364-369.	2.2	27
16	Determination of thermodynamic properties by supercritical fluid chromatography. <i>Journal of Chromatography A</i> , 2004, 1037, 369-391.	1.8	27
17	Capillary isoelectric focusing of probiotic bacteria from cow's milk in tapered fused silica capillary with off-line matrix-assisted laser desorption/ionization time-of-flight mass spectrometry identification. <i>Analytica Chimica Acta</i> , 2013, 788, 193-199.	2.6	27
18	Solute Partitioning between the Ionic Liquid 1-n-Butyl-3-methylimidazolium Tetrafluoroborate and Supercritical CO ₂ from Capillary-Column Chromatography. <i>Journal of Physical Chemistry B</i> , 2005, 109, 15165-15171.	1.2	26

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19	Correlation of two criteria of polarity for stationary phases in gas-liquid chromatography. <i>Journal of Chromatography A</i> , 1982, 234, 337-345.	1.8	25
20	Solubility parameter of poly(dimethyl siloxane) as a function of temperature and chain length. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1990, 28, 2715-2719.	2.4	24
21	Thermodynamic Prospects of Alternative Refrigerants as Solvents for Supercritical Fluid Extraction. <i>Analytical Chemistry</i> , 1996, 68, 4474-4480.	3.2	24
22	Diffusion and thermodynamic measurements by supercritical fluid chromatography. <i>Journal of Separation Science</i> , 1991, 3, 173-184.	1.0	22
23	Offline combination of pressurized fluid extraction and electron paramagnetic resonance spectroscopy for antioxidant activity of grape skin extracts assessment. <i>Journal of Chromatography A</i> , 2010, 1217, 7990-8000.	1.8	21
24	Combination of Capillary Isoelectric Focusing in a Tapered Capillary with MALDI-TOF MS for Rapid and Reliable Identification of <i>Dickeya</i> Species from Plant Samples. <i>Analytical Chemistry</i> , 2013, 85, 6806-6812.	3.2	20
25	Near- and Supercritical Water as a Diameter Manipulation and Surface Roughening Agent in Fused Silica Capillaries. <i>Analytical Chemistry</i> , 2013, 85, 327-333.	3.2	20
26	Statistical thermodynamic treatment of high-pressure phase equilibria in supercritical fluid chromatography. 2. Parametrization and testing of the model. <i>The Journal of Physical Chemistry</i> , 1992, 96, 8552-8556.	2.9	19
27	Helium Head Pressure Carbon Dioxide in Supercritical Fluid Extraction and Chromatography: Thermodynamic Analysis of the Effects of Helium. <i>Analytical Chemistry</i> , 1998, 70, 2104-2109.	3.2	18
28	Comparison of the distribution constants of benzene in different chromatographic sorbent-gas systems. Determined by direct measurement of sorption equilibria and calculated from gas chromatographic retention data. <i>Journal of Chromatography A</i> , 1981, 217, 167-175.	1.8	17
29	Partition Coefficients of Environmentally Important Phenols in a Supercritical Carbon Dioxide-Water System from Cocurrent Extraction without Analysis of the Compressible Phase. <i>Analytical Chemistry</i> , 2002, 74, 4294-4299.	3.2	17
30	Krichevskii parameters of heavy n-alkanes in carbon dioxide: comparison of the results from solubility measurements and from supercritical fluid chromatography. <i>Fluid Phase Equilibria</i> , 2003, 212, 1-9.	1.4	17
31	Limiting Partition Coefficients of Solutes in Biphasic Trihexyltetradecylphosphonium Chloride Ionic Liquid-Supercritical CO ₂ System: Measurement and LSER-Based Correlation. <i>Journal of Physical Chemistry B</i> , 2007, 111, 7620-7625.	1.2	17
32	Distribution of Organic Solutes in Biphasic 1-Butyl-3-methylimidazolium Methyl Sulfate-Supercritical CO ₂ System. <i>Journal of Physical Chemistry B</i> , 2009, 113, 9520-9526.	1.2	17
33	Fused silica capillaries with two segments of different internal diameters and inner surface roughnesses prepared by etching with supercritical water and used for volume coupling electrophoresis. <i>Electrophoresis</i> , 2017, 38, 1260-1267.	1.3	17
34	Utilization of the solution-of-groups concept in gas-liquid chromatography. <i>Journal of Chromatography A</i> , 1983, 258, 23-33.	1.8	16
35	Solubilities of Triptycene, 9-Phenylanthracene, 9,10-Dimethylanthracene, and 2-Methylanthracene in Pressurized Hot Water at Temperatures from 313 K to the Melting Point. <i>Journal of Chemical & Engineering Data</i> , 2008, 53, 160-164.	1.0	16
36	Extraction of Bitter Acids from Hops and Hop Products Using Pressurized Solvent Extraction (PSE). <i>Journal of the Institute of Brewing</i> , 2009, 115, 220-225.	0.8	16

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37	Solubilities of Oxygenated Aromatic Solids in Pressurized Hot Water. <i>Journal of Chemical & Engineering Data</i> , 2009, 54, 1457-1461.	1.0	16
38	Online Concentration of Bacteria from Tens of Microliter Sample Volumes in Roughened Fused Silica Capillary with Subsequent Analysis by Capillary Electrophoresis and Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry. <i>ACS Infectious Diseases</i> , 2020, 6, 355-365.	1.8	16
39	Diffusion of isomeric polycyclic aromatic hydrocarbons in compressed propane. <i>The Journal of Physical Chemistry</i> , 1987, 91, 1645-1648.	2.9	15
40	High-precision apparatus for physico-chemical measurements by capillary supercritical fluid chromatography. <i>Journal of Chromatography A</i> , 1987, 392, 165-174.	1.8	15
41	Statistical thermodynamic treatment of high-pressure phase equilibria in supercritical fluid chromatography. 1. Theory. <i>The Journal of Physical Chemistry</i> , 1992, 96, 8548-8552.	2.9	15
42	Silica-based monolithic capillary columns—Effect of preparation temperature on separation efficiency. <i>Journal of Chromatography A</i> , 2010, 1217, 5737-5740.	1.8	15
43	Bridged polysilsesquioxane-based wide-bore monolithic capillary columns for hydrophilic interaction chromatography. <i>Journal of Chromatography A</i> , 2017, 1479, 204-209.	1.8	15
44	Column pressure drop in capillary supercritical fluid chromatography. <i>Journal of Chromatography A</i> , 1989, 465, 169-176.	1.8	14
45	Thermodynamics of poly(methylphenylsiloxane)-alkane systems by gas-liquid chromatography. <i>Macromolecules</i> , 1991, 24, 2514-2517.	2.2	14
46	Enthalpy of transfer in supercritical fluid chromatography. <i>Journal of Chromatography A</i> , 1991, 543, 262-265.	1.8	14
47	Thermodynamics of Modifier Effects in Supercritical Fluid Chromatography. <i>The Journal of Physical Chemistry</i> , 1996, 100, 2372-2375.	2.9	13
48	Solubility of fused silica in sub- and supercritical water: Estimation from a thermodynamic model. <i>Journal of Supercritical Fluids</i> , 2013, 83, 72-77.	1.6	13
49	Etching of glass microchips with supercritical water. <i>Lab on A Chip</i> , 2015, 15, 311-318.	3.1	13
50	Nano-etched fused-silica capillary used for on-line preconcentration and electrophoretic separation of bacteriophages from large blood sample volumes with off-line MALDI-TOF mass spectrometry identification. <i>Mikrochimica Acta</i> , 2020, 187, 177.	2.5	13
51	Thermodynamics of poly[methyl(trifluoropropyl)siloxane]-alkane systems by gas-liquid chromatography. <i>Macromolecules</i> , 1990, 23, 1696-1700.	2.2	12
52	Infinite-Dilution Partial Molar Properties of Naphthalene and Biphenyl in Carbon Dioxide from Supercritical Fluid Chromatography: Composition Effects in the Stationary Phase. <i>Journal of Physical Chemistry A</i> , 2000, 104, 5396-5400.	1.1	12
53	Isoelectric Focusing in Continuously Tapered Fused Silica Capillary Prepared by Etching with Supercritical Water. <i>Analytical Chemistry</i> , 2013, 85, 4296-4300.	3.2	12
54	Pre-concentration and separation of bacteria by volume coupling electrophoresis on supercritical water-etched fused silica capillary with two segments of different internal diameters and inner surface roughnesses. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 167-175.	1.9	12

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55	Correlation of gas chromatographic specific retention volumes of homologous compounds with temperatures and methylene number. <i>Journal of Chromatography A</i> , 1980, 199, 209-216.	1.8	11
56	Infinite-Dilution Partial Molar Properties of Azulene and Acenaphthylene in Supercritical Carbon Dioxide. <i>Journal of Physical Chemistry B</i> , 1999, 103, 8132-8136.	1.2	11
57	Isolation of Quaternary Benzo[<i>a</i>]phenanthridine Alkaloids from <i>Macleaya microcarpa</i> () Tj ETQq1 1 0.784314 rgBT /Over Extraction. <i>Phytochemical Analysis</i> , 2012, 23, 477-482.	1.2	11
58	Supercritical water-treated fused silica capillaries in analytical separations: Status review. <i>Journal of Chromatography A</i> , 2018, 1539, 1-11.	1.8	11
59	Solute retention in supercritical fluid chromatography as a function of pressure: A thermodynamic analysis. <i>Journal of Supercritical Fluids</i> , 1990, 3, 108-114.	1.6	10
60	Relationship between solute retention in supercritical fluid chromatography and fluctuation integrals in dilute supercritical mixtures. <i>The Journal of Physical Chemistry</i> , 1991, 95, 8-9.	2.9	10
61	Simple First-Order Group Contribution Scheme for Solubilities of Solid Polycyclic Aromatic Hydrocarbons and Solid Polycyclic Aromatic Heterocycles in Pressurized Hot Water. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 620-626.	1.8	10
62	Solution Properties of C ₆₀ and C ₇₀ Fullerenes and C ₂₁ to C ₄₀ n-Alkanes at Infinite Dilution in Carbon Dioxide from Supercritical Fluid Chromatography. <i>Journal of Physical Chemistry B</i> , 2001, 105, 10373-10378.	1.2	9
63	Solubility of Solid Ferrocene in Pressurized Hot Water. <i>Journal of Chemical & Engineering Data</i> , 2010, 55, 2866-2869.	1.0	9
64	Capillary electrophoresis in a fused-silica capillary with surface roughness gradient. <i>Journal of Separation Science</i> , 2016, 39, 3827-3834.	1.3	9
65	Sensitive identification of milk protein allergens using on-line combination of transient isotachopheresis/micellar electrokinetic chromatography and capillary isoelectric focusing in fused silica capillary with roughened part. <i>Food Chemistry</i> , 2022, 377, 131986.	4.2	9
66	Limiting Partition Coefficients of Sulfur-Containing Aromatics in a Biphasic [bmim][MeSO ₄] ⁺ Supercritical CO ₂ System. <i>Journal of Chemical & Engineering Data</i> , 2011, 56, 527-531.	1.0	8
67	Solute Partitioning Between 1- <i>n</i> -Butyl-3-methylimidazolium Trifluoromethanesulfonate Ionic Liquid and Supercritical CO ₂ . <i>Journal of Chemical & Engineering Data</i> , 2012, 57, 1064-1071.	1.0	8
68	Rapid Isolation, Propagation, and Online Analysis of a Small Number of Therapeutic Staphylococcal Bacteriophages from a Complex Matrix. <i>ACS Infectious Diseases</i> , 2020, 6, 2745-2755.	1.8	8
69	Comparison of the distribution constants of acetone in different chromatographic sorbent-gas systems, determined by direct measurement of sorption equilibria and calculated from gas chromatographic retention data. <i>Journal of Chromatography A</i> , 1981, 219, 37-44.	1.8	7
70	Thermodynamic studies into a sorption mechanism within the cross-linked polysiloxane stationary phases. <i>Analytical Chemistry</i> , 1987, 59, 1490-1494.	3.2	7
71	Solubilities of selected organic electronic materials in pressurized hot water and estimations of aqueous solubilities at 298.15K. <i>Chemosphere</i> , 2013, 90, 2035-2040.	4.2	7
72	Interference effects in trapping trace components from gases on chromatographic sorbents. <i>Journal of Chromatography A</i> , 1983, 265, 215-221.	1.8	6

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73	Generalized linear solvation energy model applied to solute partition coefficients in ionic liquid-supercritical carbon dioxide systems. <i>Journal of Chromatography A</i> , 2012, 1250, 54-62.	1.8	6
74	Sensitivity of gas chromatographic analysis on packed and capillary columns with different types of detector under resolution-normalized conditions. <i>Journal of Chromatography A</i> , 1984, 292, 149-157.	1.8	5
75	Thermodynamic pitfalls in chromatography revisited: Supercritical fluid chromatography. <i>Journal of Chromatography A</i> , 1993, 641, 329-335.	1.8	5
76	Relative Retention in Supercritical Fluid Chromatography as a Source of Partial Molar Properties. <i>Journal of Physical Chemistry B</i> , 1999, 103, 4492-4496.	1.2	5
77	Interaction second virial coefficients for (CO ₂ +n-C _m H _{2m+2}) with (m=21 to 40) from supercritical fluid chromatography. <i>Journal of Chemical Thermodynamics</i> , 2003, 35, 667-675.	1.0	5
78	Effect of sample-charge volume on the sensitivity of chromatographic analysis. <i>Analytical Chemistry</i> , 1987, 59, 1692-1695.	3.2	4
79	Activity coefficients in binary liquid mixtures measured by reversed-flow gas chromatography. <i>Journal of Chromatography A</i> , 1992, 595, 237-246.	1.8	4
80	Thermodynamic background of selectivity shifts in temperature-programmed, constant-density supercritical fluid chromatography. <i>Journal of Chromatography A</i> , 1995, 718, 147-152.	1.8	4
81	Cohesive Energy Densities Versus Internal Pressures of Near and Supercritical Fluids. <i>Molecules</i> , 2019, 24, 961.	1.7	4
82	Identification of <i>Aspergillus</i> Conidia in Bronchoalveolar Lavage Using Offline Combination of Capillary Electrophoresis in Supercritical Water-Treated Fused Silica Capillary and Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2020, 92, 7588-7595.	3.2	4
83	Fabrication of monolithic capillary columns with inner diameter 50±530µm employing a mixture of pentaerythritol tetraacrylate and polyhedral oligomeric silsesquioxane-methacrylate as crosslinkers. <i>Journal of Separation Science</i> , 2022, 45, 3256-3263.	1.3	4
84	Effect of gas-phase non-ideality on the concentration of standard gaseous mixtures prepared by the saturation method. <i>Journal of Chromatography A</i> , 1983, 262, 305-310.	1.8	3
85	Solute retention in gas and supercritical fluid chromatography versus pairwise interactions within the system: a numerical treatment in perturbations of molecular parameters. <i>Journal of Chromatography A</i> , 1996, 738, 101-114.	1.8	3
86	Partial molar properties from solute retention in supercritical fluid chromatography: thermodynamic framework, advantages, and limitations. <i>Fluid Phase Equilibria</i> , 1998, 148, 189-199.	1.4	3
87	Group Contribution Correlation for Aqueous Solubilities of Solid Aromatics, Heterocycles, and Diamondoids over a 200 K Temperature Interval. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 3485-3491.	1.8	3
88	Solubilities of Calix[6]arene and 4- <i>tert</i> -Butylcalix[4]arene in Pressurized Hot Water. <i>Journal of Chemical & Engineering Data</i> , 2014, 59, 2433-2436.	1.0	3
89	Partitioning of organics between ionic liquids and supercritical CO ₂ : Limiting K-factors in [bmim][N(CN) ₂]-scCO ₂ system and generalized correlation with cation- and anion-specific LSERs. <i>Journal of Supercritical Fluids</i> , 2015, 102, 133-139.	1.6	2
90	Bacteriophage replication on permissive host cells in fused silica capillary with nanostructured part as potential of electrophoretic methods for developing phage applications. <i>Talanta</i> , 2021, 224, 121800.	2.9	2

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91	Evaluation of tertiary phosphate esters as stationary phases for gas-liquid chromatography. Journal of Chromatography A, 1984, 294, 167-173.	1.8	1
92	Effect of column inlet concentration profile on the sensitivity of analysis. Journal of Chromatography A, 1987, 409, 360-364.	1.8	1
93	Classification of clinical Cutibacterium acnes isolates at phylotype level by capillary electrophoretic methods in roughened fused silica capillary. Talanta, 2022, 247, 123565.	2.9	1
94	Gaussian Concentration Profile Modified by the Column-Inlet Concentration Profile and by an Additional Exponential-Decay Process. Separation Science and Technology, 1989, 24, 341-351.	1.3	0
95	Direct and Indirect Applications of Sub- and Supercritical Water in Food-Related Analysis. Food Engineering Series, 2015, , 269-302.	0.3	0
96	Partition Coefficients of Organics between Water and Carbon Dioxide Revisited: Correlation with Solute Molecular Descriptors and Solvent Cohesive Properties. Environmental Science & Technology, 2016, 50, 12857-12863.	4.6	0
97	Correlation and quantum-chemical interpretation of electrochemical reduction of substituted β^2 -chlorovinyl ketones. Collection of Czechoslovak Chemical Communications, 1981, 46, 2782-2787.	1.0	0
98	Current Challenges in Thermodynamics of Supercritical Fluid Chromatography. , 1994, , 631-639.		0