Roman Szucs

List of Publications by Citations

66 papers	1,977 citations	25 h-index	43 g-index
67 ext. papers	2,138 ext. citations	5.2 avg, IF	4.78 L-index

#	Paper	IF	Citations
66	Evaluation of ultra performance liquid chromatography. Part I. Possibilities and limitations. *Journal of Chromatography A*, **2006**, 1127, 60-9	4.5	244
65	Universal response in liquid chromatography using charged aerosol detection. *Analytical Chemistry*, **2006**, 78, 3186-92	7.8	181
64	Influence of frictional heating on temperature gradients in ultra-high-pressure liquid chromatography on 2.1mm I.D. columns. *Journal of Chromatography A*, **2006**, 1113, 84-91	4.5	172
63	A generic approach for the determination of residues of alkylating agents in active pharmaceutical ingredients by in situ derivatization-headspace-gas chromatography-mass spectrometry. *Journal of Pharmaceutical and Biomedical Analysis*, **2007**, 45, 472-9	3.5	65
62	High-efficiency liquid chromatography on conventional columns and instrumentation by using temperature as a variable I. Experiments with 25 cm x 4.6 mm I.D., 5 microm ODS columns. *Journal of Chromatography A*, **2006**, 1109, 191-6	4.5	63
61	Universal response model for a corona charged aerosol detector. *Journal of Chromatography A*, **2010**, 1217, 7418-27	4.5	60
60	High efficiency liquid chromatography on conventional columns and instrumentation by using temperature as a variable. Kinetic plots and experimental verification. *Journal of Chromatography A* , **2007**, 1138, 120-31	4.5	58
59	Chemometric-assisted method development in hydrophilic interaction liquid chromatography: A review. *Analytica Chimica Acta*, **2018**, 1000, 20-40	6.6	57
58	Improving the universal response of evaporative light scattering detection by mobile phase compensation. *Journal of Chromatography A*, **2007**, 1161, 183-91	4.5	50
57	Comparison of the response of four aerosol detectors used with ultra high pressure liquid chromatography. *Journal of Chromatography A*, **2011**, 1218, 1646-55	4.5	49
56	Investigation of polar organic solvents compatible with Corona Charged Aerosol Detection and their use for the determination of sugars by hydrophilic interaction liquid chromatography. *Analytica Chimica Acta*, **2012**, 750, 199-206	6.6	43
55	Analysis of phospholipids in lecithins comparison between micellar electrokinetic chromatography and high-performance liquid chromatography. *Journal of Chromatography A*, **1996**, 738, 25-29	4.5	42
54	Prediction of retention in hydrophilic interaction liquid chromatography using solute molecular descriptors based on chemical structures. *Journal of Chromatography A*, **2017**, 1486, 59-67	4.5	40
53	Sample stacking effects and large injection volumes in micellar electrokinetic chromatography of ionic compounds: Direct determination of iso-□acids in beer. *Chromatographia*, **1993**, 36, 323-329	2.1	40
52	Rapid Method Development in Hydrophilic Interaction Liquid Chromatography for Pharmaceutical Analysis Using a Combination of Quantitative Structure-Retention Relationships and Design of Experiments. *Analytical Chemistry*, **2017**, 89, 1870-1878	7.8	36
51	Performance comparison of partial least squares-related variable selection methods for quantitative structure retention relationships modelling of retention times in reversed-phase liquid chromatography. *Journal of Chromatography A*, **2015**, 1424, 69-76	4.5	36
50	Micellar and microemulsion electrokinetic chromatography of hop bitter acids. *Journal of High Resolution Chromatography*, **1996**, 19, 189-192		35

49	Retention prediction in reversed phase high performance liquid chromatography using quantitative structure-retention relationships applied to the Hydrophobic Subtraction Model. *Journal of Chromatography A*, **2018**, 1541, 1-11	4.5	33
48	Method to predict and compare the influence of the particle size on the isocratic peak capacity of high-performance liquid chromatography columns. *Journal of Chromatography A*, **2007**, 1147, 183-91	4.5	33
47	Evaluation of 1.0 mm i.d. column performances on ultra high pressure liquid chromatography instrumentation. *Journal of Chromatography A*, **2010**, 1217, 4925-33	4.5	32
46	Prediction of Analyte Retention Time in Liquid Chromatography. *Analytical Chemistry*, **2021**, 93, 228-256	7.8	29
45	Towards a chromatographic similarity index to establish localized quantitative structure-retention models for retention prediction: Use of retention factor ratio. *Journal of Chromatography A*, **2017**, 1486, 50-58	4.5	28
44	The history and analytical chemistry of beer bitter acids. *TrAC - Trends in Analytical Chemistry*, **1992**, 11, 275-280	14.6	28
43	Predicting drug penetration across the blood-brain barrier: comparison of micellar liquid chromatography and immobilized artificial membrane liquid chromatography. *Analytical and Bioanalytical Chemistry*, **2013**, 405, 6029-41	4.4	27
42	Alcohol modifiers in MEKC with SDS as surfactant. Study on the influence of the alcohol chain length (C1?C12). *Journal of High Resolution Chromatography*, **1996**, 19, 674-678		26
41	Molecular modeling and prediction accuracy in Quantitative Structure-Retention Relationship calculations for chromatography. *TrAC - Trends in Analytical Chemistry*, **2018**, 105, 352-359	14.6	24
40	Solid-phase extraction based on hydrophilic interaction liquid chromatography with acetone as eluent for eliminating matrix effects in the analysis of biological fluids by LC-MS. *Analytical and Bioanalytical Chemistry*, **2014**, 406, 401-7	4.4	24
39	Error measures in quantitative structure-retention relationships studies. *Journal of Chromatography A*, **2017**, 1524, 298-302	4.5	23
38	A generic approach to the impurity profiling of drugs using standardised and independent capillary zone electrophoresis methods coupled to electrospray ionisation mass spectrometry. *Electrophoresis*, **2005**, 26, 1712-23	3.6	23
37	Determination of in Vitro and in Silico Indexes for the Modeling of Blood-Brain Barrier Partitioning of Drugs via Micellar and Immobilized Artificial Membrane Liquid Chromatography. *Journal of Medicinal Chemistry*, **2017**, 60, 3739-3754	8.3	22
36	Evaluation of the Temperature Responsive Stationary Phase Poly(N-isopropylacrylamide) in Aqueous LC for the Analysis of Small Molecules. *Chromatographia*, **2007**, 66, 143-150	2.1	22
35	Use of dual-filtering to create training sets leading to improved accuracy in quantitative structure-retention relationships modelling for hydrophilic interaction liquid chromatographic systems. *Journal of Chromatography A*, **2017**, 1507, 53-62	4.5	21
34	Retention prediction of low molecular weight anions in ion chromatography based on quantitative structure-retention relationships applied to the linear solvent strength model. *Journal of Chromatography A*, **2017**, 1486, 68-75	4.5	19
33	Gradient stationary phase optimized selectivity liquid chromatography with conventional columns. *Analyst, The*, **2013**, 138, 2914-23	5	19
32	Retention Index Prediction Using Quantitative Structure-Retention Relationships for Improving Structure Identification in Nontargeted Metabolomics. *Analytical Chemistry*, **2018**, 90, 9434-9440	7.8	19

31	SEPARATION AND QUANTIFICATION OF ALL MAIN HOP ACIDS IN DIFFERENT HOP CULTIVARS BY MICROEMULSION ELECTROKINETIC CHROMATOGRAPHY. *Journal of the Institute of Brewing*, **1994**, 100, 293-296	2	16
30	Micellar electrokinetic chromatography of aliphatic compounds with indirect UV detection. *Journal of High Resolution Chromatography*, **1991**, 14, 692-693		16
29	In vitro prediction of human intestinal absorption and blood-brain barrier partitioning: development of a lipid analog for micellar liquid chromatography. *Analytical and Bioanalytical Chemistry*, **2015**, 407, 7453-66	4.4	15
28	Comparison of CZE, open-tubular CEC and non-aqueous CE coupled to electrospray MS for impurity profiling of drugs. *Electrophoresis*, **2008**, 29, 3563-74	3.6	15
27	Analysis of beer iso-α-acids by micellar electrokinetic chromatography and multi-wavelength UV detection. *Journal of High Resolution Chromatography*, **1991**, 14, 584-586		15
26	Evaluation of sphingomyelin, cholester, and phosphatidylcholine-based immobilized artificial membrane liquid chromatography to predict drug penetration across the blood-brain barrier. *Analytical and Bioanalytical Chemistry*, **2014**, 406, 6179-88	4.4	13
25	Generic approach to chiral separations: Chiral capillary electrophoresis with ternary cyclodextrin mixtures. *Journal of Separation Science*, **2000**, 12, 568-576		12
24	Towards a chromatographic similarity index to establish localised Quantitative Structure-Retention Relationships for retention prediction. III Combination of Tanimoto similarity index, logP, and retention factor ratio to identify optimal analyte training sets for ion chromatography. *Journal of Chromatography A*, **2017**, 1520, 107-116	4.5	11
23	Fast capillary GC using a low thermal mass column oven for the determination of residual solvents in pharmaceuticals. *Journal of Separation Science*, **2006**, 29, 695-8	3.4	11
22	Some applications of state-of-the-art capillary gas chromatography in the pharmaceutical industry. *TrAC - Trends in Analytical Chemistry*, **2002**, 21, 662-671	14.6	11
21	Rapid Synthesis of Pharmaceutical Oxidation Products Using Electrochemistry: A Systematic Study of N-Dealkylation Reactions of Fesoterodine Using a Commercially Available Synthesis Cell. *Organic Process Research and Development*, **2015**, 19, 1596-1603	3.9	10
20	Screening therapeutics according to their uptake across the blood-brain barrier: A high throughput method based on immobilized artificial membrane liquid chromatography-diode-array-detection coupled to electrospray-time-of-flight mass spectrometry. *European Journal of Pharmaceutics and Biopharmaceutics*, **2018**, 127, 72-84	5.7	10
19	A variable column length strategy to expedite method development. *Analytical Chemistry*, **2011**, 83, 966-78	7.8	10
18	Towards a chromatographic similarity index to establish localised quantitative structure-retention relationships for retention prediction. II Use of Tanimoto similarity index in ion chromatography. *Journal of Chromatography A*, **2017**, 1523, 173-182	4.5	9
17	The application of electrochemistry to pharmaceutical stability testing--comparison with in silico prediction and chemical forced degradation approaches. *Journal of Pharmaceutical and Biomedical Analysis*, **2015**, 115, 487-501	3.5	9
16	Exploration of the Selectivity and Retention Behavior of Alternative Polyacrylamides in Temperature Responsive Liquid Chromatography. *Analytical Chemistry*, **2020**, 92, 9815-9822	7.8	9
15	Benchmarking of Computational Methods for Creation of Retention Models in Quantitative Structure-Retention Relationships Studies. *Journal of Chemical Information and Modeling*, **2017**, 57, 2754-2762	6.1	8
14	Enhanced methodology for porting ion chromatography retention data. *Journal of Chromatography A*, **2016**, 1436, 59-63	4.5	8

13	Separation of Regioisomers of Substituted Bromoindoles of Pharmaceutical Interest by RP-HPLC and Capillary Electrophoresis Based on Interaction with Sulfobutyl Ether-β-Cyclodextrin. *Journal of High Resolution Chromatography*, **1999**, 22, 59-62		6
12	Determination of Carminic Acid in Foodstuffs and Pharmaceuticals by Microchip Electrophoresis with Photometric Detection. *Separations*, **2020**, 7, 72	3.1	5
11	Comparative effects of sodium dodecyl sulfate and sulfobutyl ether-β-cyclodextrin as pseudostationary phases in the electrokinetic chromatographic separation of hydrophobic compounds. *Journal of Chromatography A*, **1999**, 836, 53-58	4.5	5
10	Online coupling of microchip electrophoresis with ion mobility spectrometry for direct analysis of complex liquid samples. *Sensors and Actuators B: Chemical*, **2020**, 302, 127183	8.5	5
9	A New Strategy for Fast Chiral Screening by Combining HPLC-DAD with a Multivariate Curve Resolution–Alternating Least Squares Algorithm. *Chromatographia*, **2013**, 76, 1055-1066	2.1	4
8	Advantages and Pitfalls of Capillary Electrophoresis of Pharmaceutical Compounds and Their Enantiomers in Complex Samples: Comparison of Hydrodynamically Opened and Closed Systems. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	4
7	Electrochemical oxidation coupled with liquid chromatography and mass spectrometry to study the oxidative stability of active pharmaceutical ingredients in solution: A comparison of off-line and on-line approaches. *Journal of Pharmaceutical and Biomedical Analysis*, **2016**, 131, 71-79	3.5	4
6	Retention prediction using quantitative structure-retention relationships combined with the hydrophobic subtraction model in reversed-phase liquid chromatography. *Electrophoresis*, **2019**, 40, 2415-2419	3.6	3
5	Reproducibility of migration times and propagation of error in micellar electrokinetic chromatography. *Journal of Separation Science*, **1992**, 4, 399-404		3
4	Structure Driven Prediction of Chromatographic Retention Times: Applications to Pharmaceutical Analysis. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	3
3	Evaluation of electron capture detection in reversed-phase HPLC for pharmaceutical analysis. *Journal of Separation Science*, **2009**, 32, 29-33	3.4	2
2	Liquid chromatography in the pharmaceutical industry **2017**, 515-537		1
1	Potential of microchip electrophoresis in pharmaceutical analysis: Development of a universal method for frequently prescribed nonsteroidal anti-inflammatory drugs. *Journal of Chromatography A*, **2021**, 1654, 462453	4.5	1