Gert Desmet

List of Publications by Year in Descending Order

282 papers	6,037 citations	41 h-index	57 g-index
293 ext. papers	6,574 ext. citations	4.9 avg, IF	6.09 L-index

#	Paper	IF	Citations
282	Taylor-Aris dispersion for N-zone and continuous systems with variable sorption strength extending Aris approach. *Chemical Engineering Science*, **2022**, 247, 117051	4.4	1
281	Comprehensive two-dimensional temperature-responsive reversed phase liquid chromatography for the analysis of wine phenolics. *Talanta*, **2022**, 236, 122889	6.2	3
280	Convolutional neural network for automated peak detection in reversed-phase liquid chromatography.. *Journal of Chromatography A*, **2022**, 1672, 463005	4.5	0
279	Vacuum-driven assembly of electrostatically levitated microspheres on perforated surfaces. *Materials and Design*, **2022**, 216, 110573	8.1	1
278	Review of recent insights in the measurement and modelling of the B-term dispersion and related mass transfer properties in liquid chromatography. *Analytica Chimica Acta*, **2022**, 339955	6.6	1
277	Theory of separation performance and peak width in gradient elution liquid chromatography: A tutorial. *Analytica Chimica Acta*, **2022**, 339962	6.6	
276	Taylor-Aris methodology for the experimental determination of molecular diffusion coefficients: Tutorial with focus on large biomolecules.. *Journal of Chromatography A*, **2021**, 1664, 462787	4.5	0
275	Detailed computational fluid dynamics study of the parameters contributing to the viscous heating band broadening in liquid chromatography at pressures up to 2500 bar in 2.1 mm columns. *Journal of Chromatography A*, **2021**, 1661, 462683	4.5	1
274	Graph Convolutional Networks for Improved Prediction and Interpretability of Chromatographic Retention Data. *Analytical Chemistry*, **2021**, 93, 15633-15641	7.8	2
273	On the potential use of two-photon polymerization to 3D print chromatographic packed bed supports.. *Journal of Chromatography A*, **2021**, 1663, 462763	4.5	3
272	Exact analytical expressions for the band broadening in polydisperse 2-D multi-capillary columns with diffusional bridging. *Journal of Chromatography A*, **2021**, 1659, 462632	4.5	1
271	Detailed numerical study of the peak shapes of neutral analytes injected at high solvent strength in short reversed-phase liquid chromatography columns and comparison with experimental observations. *Journal of Chromatography A*, **2021**, 1643, 462078	4.5	4
270	A detailed study of the interaction between levitated microspheres and the target electrode in a strong electric field. *Powder Technology*, **2021**, 383, 292-301	5.2	3
269	Deep convolutional autoencoder for the simultaneous removal of baseline noise and baseline drift in chromatograms. *Journal of Chromatography A*, **2021**, 1646, 462093	4.5	3
268	Column-in-valve designs to minimize extra-column volumes. *Journal of Chromatography A*, **2021**, 1637, 461779	4.5	1
267	Methods to determine the kinetic performance limit of contemporary chromatographic techniques. *Journal of Separation Science*, **2021**, 44, 323-339	3.4	7
266	Measurement and modelling of the intra-particle diffusion and b-term in reversed-phase liquid chromatography. *Journal of Chromatography A*, **2021**, 1637, 461852	4.5	12

265	Through-pore polymerization in polar high-performance liquid chromatography columns allowing scanning electron microscopy based imaging of the packing order. *Journal of Chromatography A*, **2021**, 1638, 461851	4.5	0
264	Deep Q-learning for the selection of optimal isocratic scouting runs in liquid chromatography. *Journal of Chromatography A*, **2021**, 1638, 461900	4.5	4
263	Performance of functionalized monolithic silica capillary columns with different mesopore sizes using radical polymerization of octadecyl methacrylate. *Journal of Chromatography A*, **2021**, 1651, 462282	4.5	
262	A comprehensive study on the phenomenon of total breakthrough in liquid chromatography. *Journal of Chromatography A*, **2021**, 1653, 462399	4.5	4
261	Rapid vacuum-driven monolayer assembly of microparticles on the surface of perforated microfluidic devices. *Powder Technology*, **2021**, 390, 330-338	5.2	3
260	Implementations of temperature gradients in temperature-responsive liquid chromatography. *Journal of Chromatography A*, **2021**, 1654, 462425	4.5	4
259	Computational fluid dynamics study of potential solutions to alleviate viscous heating band broadening in 2.1 millimeter liquid chromatography columns. *Journal of Chromatography A*, **2021**, 1654, 462452	4.5	1
258	Modelling of analyte profiles and band broadening generated by interface loops used in multi-dimensional liquid chromatography. *Journal of Chromatography A*, **2021**, 1659, 462578	4.5	0
257	Detailed numerical analysis of the effect of radial column heterogeneities on peak parking experiments with slowly diffusing analytes. *Journal of Chromatography A*, **2021**, 1656, 462557	4.5	2
256	Experimental investigation of the retention factor dependency of eddy dispersion in packed bed columns and relation to knox's empirical model parameters. *Journal of Chromatography A*, **2020**, 1626, 461339	4.5	6
255	Spatial Segregation of Microspheres by Rubbing-Induced Triboelectrification on Patterned Surfaces. *Langmuir*, **2020**, 36, 6793-6800	4	3
254	Separation efficiency kinetics of capillary flow micro-pillar array columns for liquid chromatography. *Journal of Chromatography A*, **2020**, 1626, 461279	4.5	8
253	A multiscale modelling study on the sense and nonsense of thermal conductivity enhancement of liquid chromatography packings and other potential solutions for viscous heating effects. *Journal of Chromatography A*, **2020**, 1620, 461022	4.5	5
252	Alternative method to study the radial dispersion in liquid chromatography columns. Part II: Experimental. *Journal of Chromatography A*, **2020**, 1618, 460870	4.5	
251	The checkerboard model for the Eddy-dispersion in Laminar flows through porous media. Part II: Application to ordered and disordered 2-D flow systems. *Journal of Chromatography A*, **2020**, 1624, 461196	4.5	
250	The checkerboard model for the eddy-dispersion in laminar flows through porous media. Part I: Theory and velocity field properties. *Journal of Chromatography A*, **2020**, 1624, 461195	4.5	0
249	Alternative method to study the radial dispersion in liquid chromatography columns. Part I: Theory. *Journal of Chromatography A*, **2020**, 1618, 460868	4.5	
248	Prototyping of a Microfluidic Modulator Chip and Its Application in Heart-Cut Strong-Cation-Exchange-Reversed-Phase Liquid Chromatography Coupled to Nanoelectrospray Mass Spectrometry for Targeted Proteomics. *Analytical Chemistry*, **2020**, 92, 2388-2392	7.8	7

247	Advances and Challenges in Extremely High-Pressure Liquid Chromatography in Current and Future Analytical Scale Column Formats. *Analytical Chemistry*, **2020**, 92, 554-560	7.8	14
246	Optimizing design and employing permeability differences to achieve flow confinement in devices for spatial multidimensional liquid chromatography. *Journal of Chromatography A*, **2020**, 1612, 460665	4.5	4
245	Performance of small-domain monolithic silica columns in nano-liquid chromatography and comparison with commercial packed bed columns with 2 μm particles. *Journal of Chromatography A* , **2020**, 1616, 460804	4.5	9
244	Pharmaceutical impurity analysis by comprehensive two-dimensional temperature responsive reversed phase liquid chromatography. *Journal of Chromatography A*, **2020**, 1630, 461561	4.5	8
243	Numerical and experimental investigation of analyte breakthrough from sampling loops used for multi-dimensional liquid chromatography. *Journal of Chromatography A*, **2020**, 1626, 461283	4.5	6
242	Effect of the feed injection method on band broadening in analytical supercritical fluid chromatography. *Journal of Chromatography A*, **2020**, 1630, 461525	4.5	4
241	An explicit expression for the retention factor and velocity dependency of the mobile zone mass transfer band broadening in packed spheres beds used in liquid chromatography. *Journal of Chromatography A*, **2020**, 1634, 461710	4.5	3
240	Assessing effects of ultra-high-pressure liquid chromatography instrument configuration on dispersion, system pressure, and retention. *Journal of Chromatography A*, **2020**, 1634, 461660	4.5	2
239	A Methodology for the Estimation and Modelling of the Obstruction Factor in the Expression for Mesopore Diffusion in Reversed-Phase Liquid Chromatography Particles. *Journal of Chromatography A*, **2020**, 1625, 461285	4.5	3
238	Application of evolutionary algorithms to optimise one- and two-dimensional gradient chromatographic separations. *Journal of Chromatography A*, **2020**, 1628, 461435	4.5	3
237	Maximizing two-dimensional liquid chromatography peak capacity for the separation of complex industrial samples. *Journal of Chromatography A*, **2020**, 1609, 460457	4.5	6
236	Study of peak capacities generated by a porous layered radially elongated pillar array column coupled to a nano-LC system. *Analyst, The*, **2019**, 144, 1809-1817	5	4
235	Peak sharpening limits of solvent-assisted post-column refocusing to enhance detection limits in liquid chromatography. *Journal of Chromatography A*, **2019**, 1586, 52-61	4.5	5
234	Measurement of the Band Broadening of UV Detectors used in Ultra-high Performance Liquid Chromatography using an On-tubing Fluorescence Detector. *Chromatographia*, **2019**, 82, 489-498	2.1	5
233	Experimental and numerical study of band-broadening effects associated with analyte transfer in microfluidic devices for spatial two-dimensional liquid chromatography created by additive manufacturing. *Journal of Chromatography A*, **2019**, 1598, 77-84	4.5	9
232	Chromatographic study of the structural properties of mesoporous silica layers deposited on radially elongated pillars. *Journal of Chromatography A*, **2019**, 1595, 58-65	4.5	3
231	Achieving a Peak Capacity of 1800 Using an 8 m Long Pillar Array Column. *Analytical Chemistry*, **2019**, 91, 10932-10936	7.8	18
230	Extra-column band broadening effects in contemporary liquid chromatography: Causes and solutions. *TrAC - Trends in Analytical Chemistry*, **2019**, 119, 115619	14.6	21

229	Impact of particle size gradients on the apparent efficiency of chromatographic columns. *Journal of Chromatography A*, **2019**, 1603, 208-215	4.5	6
228	Improved Sensitivity in Low-Input Proteomics Using Micropillar Array-Based Chromatography. *Analytical Chemistry*, **2019**, 91, 14203-14207	7.8	30
227	Guidelines for tuning the macropore structure of monolithic columns for high-performance liquid chromatography. *Journal of Separation Science*, **2019**, 42, 522-533	3.4	16
226	Exploring the effect of mesopore size reduction on the column performance of silica-based open tubular capillary columns. *Journal of Chromatography A*, **2018**, 1552, 87-91	4.5	10
225	Numerical investigation of band spreading generated by flow-through needle and fixed loop sample injectors. *Journal of Chromatography A*, **2018**, 1552, 29-42	4.5	7
224	Methodologies to determine b-term coefficients revisited. *Journal of Chromatography A*, **2018**, 1532, 124-135	4.5	12
223	On-tubing fluorescence measurements of the band broadening of contemporary injectors in ultra-high performance liquid chromatography. *Journal of Chromatography A*, **2018**, 1535, 44-54	4.5	10
222	A microfluidic distributor combining minimal volume, minimal dispersion and minimal sensitivity to clogging. *Journal of Chromatography A*, **2018**, 1537, 75-82	4.5	8
221	Enhancing the Possibilities of Comprehensive Two-Dimensional Liquid Chromatography through Hyphenation of Purely Aqueous Temperature-Responsive and Reversed-Phase Liquid Chromatography. *Analytical Chemistry*, **2018**, 90, 4961-4967	7.8	13
220	Silica-based hybrid porous layers to enhance the retention and efficiency of open tubular capillary columns with a 5 µm inner diame9ter. *Journal of Chromatography A*, **2018**, 1580, 63-71	4.5	22
219	Detailed efficiency analysis of columns with a different packing quality and confirmation via total pore blocking. *Journal of Chromatography A*, **2018**, 1581-1582, 55-62	4.5	2
218	Numerical and analytical investigation of the possibilities to enhance the thermal conductivity of core-shell particle packed beds. *Journal of Chromatography A*, **2018**, 1575, 26-33	4.5	6
217	Two-dimensional insertable separation tool (TWIST) for flow confinement in spatial separations. *Journal of Chromatography A*, **2018**, 1577, 120-123	4.5	14
216	Kinetic performance factor - A measurable metric of separation-time-pressure tradeoff in liquid and gas chromatography. *Journal of Chromatography A*, **2018**, 1567, 26-36	4.5	16
215	Possibilities and Limitations of Computer-Assisted Method Development in HILIC: A Case Study. *Chromatographia*, **2017**, 80, 771-781	2.1	6
214	Prototyping of thermoplastic microfluidic chips and their application in high-performance liquid chromatography separations of small molecules. *Journal of Chromatography A*, **2017**, 1523, 224-233	4.5	20
213	Numerical study and theoretical performance limit of interconnected multi-capillary gas chromatography columns with perfectly ordered pillar patterns. *Journal of Chromatography A*, **2017**, 1524, 215-221	4.5	0
212	Chromatographic Properties of Minimal Aspect Ratio Monolithic Silica Columns. *Analytical Chemistry*, **2017**, 89, 10948-10956	7.8	21

211	Chip-Based Multicapillary Column with Maximal Interconnectivity to Combine Maximum Efficiency and Maximum Loadability. *Analytical Chemistry*, **2017**, 89, 11605-11613	7.8	9
210	Optimal mixing rate in reverse phase liquid chromatography. Experimental evaluations. *Journal of Chromatography A*, **2017**, 1513, 84-92	4.5	5
209	Preparation and evaluation of mesoporous silica layers on radially elongated pillars. *Journal of Chromatography A*, **2017**, 1523, 234-241	4.5	7
208	Assessment of intra-particle diffusion in hydrophilic interaction liquid chromatography and reversed-phase liquid chromatography under conditions of identical packing structure. *Journal of Chromatography A*, **2017**, 1523, 204-214	4.5	7
207	Peak deconvolution to correctly assess the band broadening of chromatographic columns. *Journal of Chromatography A*, **2016**, 1465, 126-42	4.5	16
206	Very High Efficiency Porous Silica Layer Open-Tubular Capillary Columns Produced via in-Column Sol-Gel Processing. *Analytical Chemistry*, **2016**, 88, 10158-10166	7.8	54
205	Enhancing detection sensitivity in gradient liquid chromatography via post-column refocusing and strong-solvent remobilization. *Journal of Chromatography A*, **2016**, 1455, 86-92	4.5	7
204	Applicability of linear and nonlinear retention-time models for reversed-phase liquid chromatography separations of small molecules, peptides, and intact proteins. *Journal of Separation Science*, **2016**, 39, 1249-57	3.4	16
203	Design and evaluation of microfluidic devices for two-dimensional spatial separations. *Journal of Chromatography A*, **2016**, 1434, 127-35	4.5	16
202	The chromatographic performance of flow-through particles: A computational fluid dynamics study. *Journal of Chromatography A*, **2016**, 1429, 166-74	4.5	4
201	Effect of polyethylene glycol on pore structure and separation efficiency of silica-based monolithic capillary columns. *Journal of Chromatography A*, **2016**, 1442, 42-52	4.5	25
200	Detailed kinetic performance analysis of micromachined radially elongated pillar array columns for liquid chromatography. *Journal of Chromatography A*, **2016**, 1433, 75-84	4.5	15
199	Effect of pre- and post-column band broadening on the performance of high-speed chromatography columns under isocratic and gradient conditions. *Journal of Chromatography A*, **2016**, 1442, 73-82	4.5	37
198	Optimal Mixing Rate in Linear Solvent Strength Gradient Liquid Chromatography. *Analytical Chemistry*, **2016**, 88, 2281-8	7.8	10
197	Problems involving the determination of the column-only band broadening in columns producing narrow and tailed peaks. *Journal of Chromatography A*, **2016**, 1440, 74-84	4.5	15
196	Optimal mixing rate in linear solvent strength gradient liquid chromatography. Balanced mixing program. *Journal of Chromatography A*, **2016**, 1476, 35-45	4.5	7
195	A theoretical study on the advantage of core-shell particles with radially-oriented mesopores. *Journal of Chromatography A*, **2016**, 1456, 137-44	4.5	20
194	Extensive database of liquid phase diffusion coefficients of some frequently used test molecules in reversed-phase liquid chromatography and hydrophilic interaction liquid chromatography. *Journal of Chromatography A*, **2016**, 1455, 102-112	4.5	28

193	Rationale behind the optimum efficiency of columns packed with new 1.9μm fully porous particles of narrow particle size distribution. *Journal of Chromatography A*, **2016**, 1454, 78-85	4.5	41
192	Kinetic plots for programmed temperature gas chromatography. *Journal of Chromatography A*, **2016**, 1450, 94-100	4.5	4
191	Exploring the pressure resistance limits of monolithic silica capillary columns. *Journal of Chromatography A*, **2016**, 1446, 164-9	4.5	6
190	Effect of reference conditions on flow rate, modifier fraction and retention in supercritical fluid chromatography. *Journal of Chromatography A*, **2016**, 1459, 129-135	4.5	11
189	On the feasibility to conduct gradient liquid chromatography separations in narrow-bore columns at pressures up to 2000bar. *Journal of Chromatography A*, **2016**, 1473, 48-55	4.5	10
188	Comprehensive study of the macropore and mesopore size distributions in polymer monoliths using complementary physical characterization techniques and liquid chromatography. *Journal of Separation Science*, **2016**, 39, 4492-4501	3.4	12
187	Plastic light coupler for absorbance detection in silicon microfluidic channels. *Microfluidics and Nanofluidics*, **2015**, 18, 559-568	2.8	8
186	Merging Open-Tubular and Packed Bed Liquid Chromatography. *Analytical Chemistry*, **2015**, 87, 7382-8	7.8	28
185	Understanding and diminishing the extra-column band broadening effects in supercritical fluid chromatography. *Journal of Chromatography A*, **2015**, 1403, 132-7	4.5	24
184	On the inherent data fitting problems encountered in modeling retention behavior of analytes with dual retention mechanism. *Journal of Chromatography A*, **2015**, 1403, 81-95	4.5	12
183	Kinetic plots for gas chromatography: theory and experimental verification. *Journal of Chromatography A*, **2015**, 1386, 81-8	4.5	14
182	Using the column wall itself as resistive heater for fast temperature gradients in liquid chromatography. *Journal of Chromatography A*, **2015**, 1420, 129-34	4.5	6
181	Metrics of separation performance in chromatography: Part 3: General separation performance of linear solvent strength gradient liquid chromatography. *Journal of Chromatography A*, **2015**, 1413, 9-21	4.5	12
180	Methods for the experimental characterization and analysis of the efficiency and speed of chromatographic columns: A step-by-step tutorial. *Analytica Chimica Acta*, **2015**, 894, 20-34	6.6	28
179	Effect of gradient steepness on the kinetic performance limits and peak compression for reversed-phase gradient separations of small molecules. *Journal of Chromatography A*, **2015**, 1409, 152-8	4.5	8
178	High-speed isocratic and gradient liquid-chromatography separations at 1500bar. *Journal of Chromatography A*, **2015**, 1409, 138-45	4.5	31
177	Strategies to integrate porous layers in microfluidic devices. *Microelectronic Engineering*, **2015**, 132, 1-13	2.5	15
176	Graphical data representation methods to assess the quality of LC columns. *Analytical Chemistry*, **2015**, 87, 8593-602	7.8	30

175	Evaluation of the Kinetic Performance Differences between Hydrophilic-Interaction Liquid Chromatography and Reversed-Phase Liquid Chromatography under Conditions of Identical Packing Structure. *Analytical Chemistry*, **2015**, 87, 12331-9	7.8	18
174	Peak refocusing using subsequent retentive trapping and strong eluent remobilization in liquid chromatography: a theoretical optimization study. *Journal of Chromatography A*, **2015**, 1381, 74-86	4.5	19
173	Possibilities of retention modeling and computer assisted method development in supercritical fluid chromatography. *Journal of Chromatography A*, **2015**, 1381, 219-28	4.5	27
172	Computer-assisted multi-segment gradient optimization in ion chromatography. *Journal of Chromatography A*, **2015**, 1381, 101-9	4.5	8
171	Retention modeling and method development in hydrophilic interaction chromatography. *Journal of Chromatography A*, **2014**, 1337, 116-27	4.5	56
170	The impact of flow distribution on column performance: a computational fluid dynamics study. *Journal of Chromatography A*, **2014**, 1369, 125-30	4.5	14
169	The axial rearrangement mixer: working principles and in-depth investigation. *Electrophoresis*, **2014** , 35, 298-305	3.6	4
168	Assessment and numerical search for minimal Taylor-Aris dispersion in micro-machined channels of nearly rectangular cross-section. *Journal of Chromatography A*, **2014**, 1368, 70-81	4.5	18
167	Use of individual retention modeling for gradient optimization in hydrophilic interaction chromatography: separation of nucleobases and nucleosides. *Journal of Chromatography A*, **2014**, 1368, 125-31	4.5	21
166	Suppression of the sidewall effect in pillar array columns with radially elongated pillars. *Journal of Chromatography A*, **2014**, 1367, 118-22	4.5	14
165	Integration of uniform porous shell layers in very long pillar array columns using electrochemical anodization for liquid chromatography. *Analyst, The*, **2014**, 139, 618-25	5	28
164	Temperature effects in supercritical fluid chromatography: a trade-off between viscous heating and decompression cooling. *Journal of Chromatography A*, **2014**, 1365, 212-8	4.5	17
163	Comparison and optimization of different peak integration methods to determine the variance of unretained and extra-column peaks. *Journal of Chromatography A*, **2014**, 1364, 140-50	4.5	19
162	A universal comparison study of chromatographic response functions. *Journal of Chromatography A* , **2014**, 1361, 178-90	4.5	4
161	Evaluation and comparison of the kinetic performance of ultra-high performance liquid chromatography and high-performance liquid chromatography columns in hydrophilic interaction and reversed-phase liquid chromatography conditions. *Journal of Chromatography A*, **2014**, 1369, 83-91	4.5	25
160	A generic approach to post-column refocusing in liquid chromatography. *Journal of Chromatography A*, **2014**, 1360, 164-71	4.5	24
159	Occurrence of turbulent flow conditions in supercritical fluid chromatography. *Journal of Chromatography A*, **2014**, 1361, 277-85	4.5	29
158	Design and performance evaluation of a microfluidic ion-suppression module for anion-exchange chromatography. *Journal of Chromatography A*, **2014**, 1355, 253-60	4.5	11

157	Enhanced selectivity and search speed for method development using one-segment-per-component optimization strategies. *Journal of Chromatography A*, **2014**, 1358, 145-54	4.5	12
156	In situ measurement of the transversal dispersion in ordered and disordered two-dimensional pillar beds for liquid chromatography. *Analytical Chemistry*, **2014**, 86, 2947-54	7.8	10
155	The future of UHPLC: Towards higher pressure and/or smaller particles?. *TrAC - Trends in Analytical Chemistry*, **2014**, 63, 65-75	14.6	47
154	Theoretical study on the impact of slip flow on chromatographic performance. *Journal of Chromatography A*, **2014**, 1366, 120-5	4.5	4
153	Experimental and numerical validation of the effective medium theory for the B-term band broadening in 1st and 2nd generation monolithic silica columns. *Journal of Chromatography A*, **2014** , 1351, 46-55	4.5	9
152	Detailed characterization of the kinetic performance of first and second generation silica monolithic columns for reversed-phase chromatography separations. *Journal of Chromatography A*, **2014**, 1325, 72-82	4.5	34
151	Kinetic performance comparison of fully and superficially porous particles with a particle size of 5 μm: intrinsic evaluation and application to the impurity analysis of griseofulvin. *Talanta*, **2014**, 122, 122-9	6.2	18
150	Characterization of polymer monolithic columns for small-molecule separations using total-pore-blocking conditions. *Journal of Chromatography A*, **2014**, 1325, 115-20	4.5	10
149	Gradient-elution parameters in capillary liquid chromatography for high-speed separations of peptides and intact proteins. *Journal of Chromatography A*, **2014**, 1355, 149-57	4.5	25
148	Towards a generic variable column length method development strategy for samples with a large variety in polarity. *Journal of Chromatography A*, **2014**, 1372C, 174-186	4.5	11
147	Exploring the speed-resolution limits of supercritical fluid chromatography at ultra-high pressures. *Journal of Chromatography A*, **2014**, 1374, 247-253	4.5	10
146	Extending the limits of operating pressure of narrow-bore column liquid chromatography instrumentation. *Journal of Chromatography A*, **2014**, 1347, 56-62	4.5	17
145	A finite parallel zone model to interpret and extend Giddings' coupling theory for the eddy-dispersion in porous chromatographic media. *Journal of Chromatography A*, **2013**, 1314, 124-37	4.5	21
144	High-speed gradient separations of peptides and proteins using polymer-monolithic poly(styrene-co-divinylbenzene) capillary columns at ultra-high pressure. *Journal of Chromatography A*, **2013**, 1304, 177-82	4.5	25
143	Possibilities and limitations of the kinetic plot method in supercritical fluid chromatography. *Journal of Chromatography A*, **2013**, 1305, 300-9	4.5	13
142	Theoretical evaluation of the advantages and limitations of constant pressure versus constant flow rate gradient elution separation in supercritical fluid chromatography. *Journal of Chromatography A* , **2013**, 1312, 134-42	4.5	9
141	Exploring the speed limits of liquid chromatography using shear-driven flows through 45 and 85 nm deep nano-channels. *Analyst, The*, **2013**, 138, 6127-33	5	11
140	Fundamentals for LC miniaturization. *Analytical Chemistry*, **2013**, 85, 543-56	7.8	111

139	Computational fluid dynamics study of the optimal design and operating conditions of the segmentation ring used in parallel segmented flow columns. *Journal of Chromatography A*, **2013**, 1294, 50-7	4.5	5
138	Application of the isopycnic kinetic plot method for elucidating the potential of sub-2 μm and core-shell particles in SFC. *Talanta*, **2013**, 116, 1105-12	6.2	23
137	Quantification aspects of constant pressure (ultra) high pressure liquid chromatography using mass-sensitive detectors with a nebulizing interface. *Journal of Chromatography A*, **2013**, 1274, 118-28	4.5	4
136	On the advantages of radially elongated structures in microchip-based liquid chromatography. *Analytical Chemistry*, **2013**, 85, 5207-12	7.8	25
135	A high aspect ratio membrane reactor for liquid–liquid extraction. *Journal of Membrane Science*, **2013**, 436, 154-162	9.6	18
134	Variable column length method development strategy for amino acid analysis in serum samples of neonates with metabolic disorders. *Journal of Chromatography A*, **2013**, 1292, 229-38	4.5	5
133	Fabrication of integrated porous glass for microfluidic applications. *Lab on A Chip*, **2013**, 13, 3061-9	7.2	7
132	Isocratic and gradient impedance plot analysis and comparison of some recently introduced large size core-shell and fully porous particles. *Journal of Chromatography A*, **2013**, 1312, 80-6	4.5	35
131	Accurate determination of extra-column band broadening using peak summation. *Journal of Separation Science*, **2012**, 35, 519-29	3.4	11
130	Performance evaluation of different design alternatives for microfabricated nonporous fused silica pillar columns for capillary electrochromatography. *Analytical Chemistry*, **2012**, 84, 9996-10004	7.8	10
129	Design and evaluation of various methods for the construction of kinetic performance limit plots for supercritical fluid chromatography. *Journal of Chromatography A*, **2012**, 1258, 152-60	4.5	28
128	High-resolution separations of tryptic digest mixtures using core-shell particulate columns operated at 1,200 bar. *Journal of Chromatography A*, **2012**, 1264, 57-62	4.5	25
127	Maximizing the peak capacity using coupled columns packed with 2.6 μm core-shell particles operated at 1200 bar. *Journal of Chromatography A*, **2012**, 1256, 72-9	4.5	22
126	Predictive elution window stretching and shifting as a generic search strategy for automated method development for liquid chromatography. *Analytical Chemistry*, **2012**, 84, 7823-30	7.8	22
125	Exploring the possibilities of cryogenic cooling in liquid chromatography for biological applications: a proof of principle. *Analytical Chemistry*, **2012**, 84, 2031-7	7.8	26
124	Capillary ion chromatography at high pressure and temperature. *Analytical Chemistry*, **2012**, 84, 7212-7	7.8	21
123	Efficiency gain limits of the parallel segmented inlet and outlet flow concept in analytical liquid chromatography columns suffering from radial transcolumn packing density gradients. *Journal of Chromatography A*, **2012**, 1258, 66-75	4.5	7
122	Hydrodynamic chromatography separations in micro- and nanopillar arrays produced using deep-UV lithography. *Journal of Separation Science*, **2012**, 35, 1877-83	3.4	8

121	Separations using a porous-shell pillar array column on a capillary LC instrument. *Journal of Separation Science*, **2012**, 35, 2010-7	3.4	14
120	Realization of 1 □10(6) theoretical plates in liquid chromatography using very long pillar array columns. *Analytical Chemistry*, **2012**, 84, 1214-9	7.8	67
119	Comparison of the gradient kinetic performance of silica monolithic capillary columns with columns packed with 3 μm porous and 2.7 μm fused-core silica particles. *Journal of Chromatography A*, **2012**, 1228, 270-5	4.5	37
118	Kinetic plot based comparison of the efficiency and peak capacity of high-performance liquid chromatography columns: theoretical background and selected examples. *Journal of Chromatography A*, **2012**, 1228, 20-30	4.5	48
117	Comparison of the quantitative performance of constant pressure versus constant flow rate gradient elution separations using concentration-sensitive detectors. *Journal of Chromatography A*, **2012**, 1232, 65-76	4.5	16
116	Performance limits and kinetic optimization of parallel and serially connected multi-column systems spanning a wide range of efficiencies for liquid chromatography. *Journal of Chromatography A*, **2012**, 1219, 114-27	4.5	5
115	Calculation of the geometrical three-point parameter constant appearing in the second order accurate effective medium theory expression for the B-term diffusion coefficient in fully porous and porous-shell random sphere packings. *Journal of Chromatography A*, **2012**, 1223, 35-40	4.5	13
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