

Bohuslav Gašpar

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Mathematical model of electromigration allowing the deviation from electroneutrality. Electrophoresis, 2021, 42, 881-889.	2.4	6
2	Editorial Fundamentals 2021. Electrophoresis, 2021, 42, 813-813.	2.4	0
3	Simul 6: A fast dynamic simulator of electromigration. Electrophoresis, 2021, 42, 1291-1299.	2.4	17
4	CE determination of the thermodynamic pK_a values and limiting ionic mobilities of 14 low molecular mass UV absorbing ampholytes for accurate characterization of the pH gradient in carrier ampholytes-based IEF and its numeric simulation. Electrophoresis, 2020, 41, 514-522.	2.4	14
5	The dynamics of band (peak) shape development in capillary zone electrophoresis in the case of two co-migrating analytes: The displacement and the tag-along effects. Electrophoresis, 2020, 41, 481-492.	2.4	2
6	Determination of thermodynamic acidity constants and limiting ionic mobilities of weak electrolytes by capillary electrophoresis using a new free software AnglerFish. Electrophoresis, 2020, 41, 493-501.	2.4	20
7	Electrolysis phenomena in electrophoresis. Electrophoresis, 2020, 41, 536-544.	2.4	9
8	Fundamentals of Electrophoresis. Electrophoresis, 2020, 41, 413-413.	2.4	0
9	Editorial. Electrophoresis, 2019, 40, 605-605.	2.4	0
10	The dynamics of band (peak) shape development in capillary zone electrophoresis in light of the linear theory of electromigration. Electrophoresis, 2019, 40, 668-682.	2.4	8
11	Enhancement of the conductivity detection signal in capillary electrophoresis systems using neutral cyclodextrins as sweeping agents. Electrophoresis, 2018, 39, 1390-1398.	2.4	9
12	Special Issue of Electrophoresis on Fundamentals. Electrophoresis, 2015, 36, 641-641.	2.4	0
13	Determination of the correct migration time and other parameters of the Haarhoff-van der Linde function from the peak geometry characteristics. Electrophoresis, 2015, 36, 655-661.	2.4	14
14	Equivalent peak resolution: Characterization of the extent of separation for two components based on their relative peak overlap. Electrophoresis, 2015, 36, 646-654.	2.4	6
15	Determination of relative enantiomer migration order using a racemic sample. Journal of Chromatography A, 2015, 1424, 139-143.	3.7	5
16	Generalized model of electromigration with 1:1 (analyte:selector) complexation stoichiometry: Part II. Application to dual systems and experimental verification. Journal of Chromatography A, 2015, 1384, 147-154.	3.7	12
17	Generalized model of electromigration with 1:1 (analyte:selector) complexation stoichiometry: Part I. Theory. Journal of Chromatography A, 2015, 1384, 142-146.	3.7	16
18	Separation efficiency of dual-selector systems in capillary electrophoresis. Journal of Chromatography A, 2014, 1330, 82-88.	3.7	21

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19	Fundamentals 2014. Electrophoresis, 2014, 35, 595-595.	2.4	0
20	Determination of thermodynamic values of acidic dissociation constants and complexation constants of profens and their utilization for optimization of separation conditions by Simul 5 Complex. Journal of Chromatography A, 2014, 1364, 276-288.	3.7	27
21	Twenty years of development of dual and multi-selector models in capillary electrophoresis: A review. Electrophoresis, 2014, 35, 2688-2700.	2.4	40
22	Complexation of Buffer Constituents with Neutral Complexation Agents: Part I. Impact on Common Buffer Properties. Analytical Chemistry, 2013, 85, 8518-8525.	6.5	31
23	Complexation of Buffer Constituents with Neutral Complexation Agents: Part II. Practical Impact in Capillary Zone Electrophoresis. Analytical Chemistry, 2013, 85, 8526-8534.	6.5	30
24	Applicability and limitations of affinity capillary electrophoresis and vacancy affinity capillary electrophoresis methods for determination of complexation constants. Electrophoresis, 2013, 34, 761-767.	2.4	54
25	Determination of effective mobilities of EOF markers in BGE containing sulfated β -cyclodextrin by a two-detector method. Electrophoresis, 2013, 34, 768-776.	2.4	19
26	Editorial. Electrophoresis, 2013, 34, 621-621.	2.4	1
27	Simulation of the effects of complex formation equilibria in electrophoresis: III. Simultaneous effects of chiral selector concentration and background electrolyte pH. Electrophoresis, 2012, 33, 3012-3020.	2.4	22
28	A nonlinear electrophoretic model for PeakMaster: Part III. Electromigration dispersion in systems that contain a neutral complex-forming agent and a fully charged analyte. Theory. Journal of Chromatography A, 2012, 1267, 102-108.	3.7	28
29	A nonlinear electrophoretic model for PeakMaster: Part IV. Electromigration dispersion in systems that contain a neutral complex-forming agent and a fully charged analyte. Experimental verification. Journal of Chromatography A, 2012, 1267, 109-115.	3.7	27
30	Determination of stability constants of complexes of neutral analytes with charged cyclodextrins by affinity capillary electrophoresis. Electrophoresis, 2012, 33, 1032-1039.	2.4	34
31	Simulation of the effects of complex formation equilibria in electrophoresis: II. Experimental verification. Electrophoresis, 2012, 33, 948-957.	2.4	43
32	Simulation of the effects of complex formation equilibria in electrophoresis: I. Mathematical model. Electrophoresis, 2012, 33, 938-947.	2.4	64
33	A nonlinear electrophoretic model for PeakMaster: I. Mathematical model. Electrophoresis, 2012, 33, 923-930.	2.4	38
34	A nonlinear electrophoretic model for PeakMaster: II. Experimental verification. Electrophoresis, 2012, 33, 931-937.	2.4	24
35	Fundamentals. Electrophoresis, 2012, 33, 891-892.	2.4	0
36	Methods for determination of all binding parameters in systems with simultaneous borate and cyclodextrin complexation. Journal of Chromatography A, 2011, 1218, 7211-7218.	3.7	7

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37	Accuracy and sensitivity of the determination of rate constants of interconversion in achiral and chiral environments by dynamic enantioselective electrophoresis. <i>Electrophoresis</i> , 2011, 32, 595-603.	2.4	6
38	Enhanced selectivity in CZE multi-chiral selector enantioseparation systems: Proposed separation mechanism. <i>Electrophoresis</i> , 2010, 31, 1435-1441.	2.4	54
39	A novel high-resolution chipCE assay for rapid detection of EGFR gene mutations and amplifications in lung cancer therapy by a combination of fragment analysis, denaturing CE and MLPA. <i>Electrophoresis</i> , 2010, 31, 3518-3524.	2.4	10
40	Editorial. <i>Electrophoresis</i> , 2010, 31, 725-725.	2.4	0
41	Simulation of desalting that occurs during isoelectric trapping separations. <i>Electrophoresis</i> , 2009, 30, 433-443.	2.4	16
42	Determination of the surface heat transfer coefficient in CE. <i>Electrophoresis</i> , 2009, 30, 910-920.	2.4	8
43	Theory of electrophoresis: Fate of one equation. <i>Electrophoresis</i> , 2009, 30, S7-15.	2.4	24
44	Editorial. <i>Electrophoresis</i> , 2009, 30, 713-713.	2.4	0
45	Occurrence and behavior of system peaks in RP HPLC with solely aqueous mobile phases. <i>Journal of Separation Science</i> , 2009, 32, 2864-2870.	2.5	2
46	Electromigration Oscillations Occurring in Ternary Electrolyte Systems with Complex Eigenmobilities, as Predicted by Theory and Ascertained by Capillary Electrophoresis. <i>Journal of Physical Chemistry B</i> , 2009, 113, 12439-12446.	2.6	9
47	System peaks in micellar electrophoresis: I. Utilization of system peaks for determination of critical micelle concentration. <i>Electrophoresis</i> , 2008, 29, 1189-1195.	2.4	13
48	Fundamentals of Electrophoresis. <i>Electrophoresis</i> , 2008, 29, 975-976.	2.4	0
49	Model of CE enantioseparation systems with a mixture of chiral selectors. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2008, 875, 30-34.	2.3	46
50	Model of CE enantioseparation systems with a mixture of chiral selectors. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2008, 875, 35-41.	2.3	20
51	Kohlrausch regulating function and other conservation laws in electrophoresis. <i>Electrophoresis</i> , 2007, 28, 3-14.	2.4	68
52	On-line preconcentration of weak electrolytes by electrokinetic accumulation in CE: Experiment and simulation. <i>Electrophoresis</i> , 2007, 28, 1540-1547.	2.4	34
53	Stability constants of amino acids, peptides, proteins, and other biomolecules determined by CE and related methods: Recapitulation of published data. <i>Electrophoresis</i> , 2007, 28, 2145-2152.	2.4	60
54	Reliable electrophoretic mobilities free from Joule heating effects using CE. <i>Electrophoresis</i> , 2007, 28, 3759-3766.	2.4	23

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55	Electrophoresis on a microfluidic chip for analysis of fluorescence-labeled human rhinovirus. <i>Electrophoresis</i> , 2007, 28, 4734-4740.	2.4	23
56	Fundamentals of Electrophoresis 2007. <i>Electrophoresis</i> , 2007, 28, 493-494.	2.4	0
57	Prediction and understanding system peaks in capillary zone electrophoresis. <i>Journal of Separation Science</i> , 2007, 30, 1435-1445.	2.5	37
58	Virus analysis by electrophoresis on a microfluidic chip. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2007, 860, 173-179.	2.3	22
59	Determination of limiting mobilities and dissociation constants of 21 amino acids by capillary zone electrophoresis at very low pH. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2006, 841, 129-134.	2.3	39
60	Oscillating electrolytes. <i>Electrophoresis</i> , 2006, 27, 513-518.	2.4	19
61	Simul 5 - Free dynamic simulator of electrophoresis. <i>Electrophoresis</i> , 2006, 27, 984-991.	2.4	175
62	Eigenmobilities in background electrolytes for CZE. V. Intensity (amplitudes) of system peaks. <i>Electrophoresis</i> , 2006, 27, 4610-4617.	2.4	24
63	Fundamentals of Electrophoresis 2006. <i>Electrophoresis</i> , 2006, 27, 511-512.	2.4	0
64	Pushing Capillary Electrophoresis in Chip Format into the Low Cost Region. <i>ECS Transactions</i> , 2006, 3, 407-416.	0.5	2
65	Analyte and system eigenpeaks in nonaqueous capillary zone electrophoresis: Theoretical description and experimental confirmation with methanol as solvent. <i>Electrophoresis</i> , 2005, 26, 463-472.	2.4	14
66	Conductivity detection in capillary zone electrophoresis: Inspection by PeakMaster. <i>Electrophoresis</i> , 2005, 26, 1948-1953.	2.4	53
67	Editorial: <i>Electrophoresis</i> 2/2005. <i>Electrophoresis</i> , 2005, 26, 295-295.	2.4	0
68	Dynamics of interconversion of enantiomers in chiral separation systems: A novel approach for determination of all rate constants involved in the interconversion. <i>Electrophoresis</i> , 2004, 25, 733-742.	2.4	32
69	Determination of cationic mobilities and pKa values of 22 amino acids by capillary zone electrophoresis. <i>Electrophoresis</i> , 2004, 25, 309-317.	2.4	108
70	Effects of partial/asymmetrical filling of micelles and chiral selectors on capillary electrophoresis enantiomeric separation: Generation of a gradient. <i>Electrophoresis</i> , 2004, 25, 2693-2700.	2.4	17
71	Eigenmobilities in background electrolytes for capillary zone electrophoresis: III. Linear theory of electromigration. <i>Electrophoresis</i> , 2004, 25, 3071-3079.	2.4	82
72	Eigenmobilities in background electrolytes for capillary zone electrophoresis: IV. Computer program PeakMaster. <i>Electrophoresis</i> , 2004, 25, 3080-3085.	2.4	133

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73	System zones in capillary zone electrophoresis. <i>Electrophoresis</i> , 2004, 25, 3901-3912.	2.4	50
74	Influence of solvent on temperature and thermal peak broadening in capillary zone electrophoresis. <i>Electrophoresis</i> , 2003, 24, 1553-1564.	2.4	50
75	The importance of capillary electrophoresis, capillary electrochromatography, and ion chromatography in separations of inorganic ions. <i>Electrophoresis</i> , 2003, 24, 1883-1891.	2.4	27
76	Editorial: <i>Electrophoresis</i> 3/2003. <i>Electrophoresis</i> , 2003, 24, 313-313.	2.4	0
77	High-sensitive capillary zone electrophoresis analysis by electrokinetic injection with transient isotachophoretic preconcentration: Electrokinetic supercharging. <i>Electrophoresis</i> , 2003, 24, 498-504.	2.4	131
78	Eigenmobilities in background electrolytes for capillary zone electrophoresis: II. Eigenpeaks in univalent weak electrolytes. <i>Electrophoresis</i> , 2003, 24, 536-547.	2.4	71
79	Separation of twenty underivatized essential amino acids by capillary zone electrophoresis with contactless conductivity detection. <i>Electrophoresis</i> , 2003, 24, 671-677.	2.4	123
80	Separation of haloacetic acids in water by capillary zone electrophoresis with direct UV detection and contactless conductivity detection. <i>Journal of Chromatography A</i> , 2003, 993, 143-152.	3.7	32
81	Propylene Carbonate as a Nonaqueous Solvent for Capillary Electrophoresis: Mobility and Ionization Constant of Aliphatic Amines. <i>Analytical Chemistry</i> , 2002, 74, 428-433.	6.5	47
82	Electrophoretic mobilities of large organic ions in nonaqueous solvents: Determination by capillary electrophoresis in propylene carbonate, N,N-dimethylformamide, N,N-dimethylacetamide, acetonitrile and methanol. <i>Electrophoresis</i> , 2002, 23, 375.	2.4	38
83	Optimization of background electrolytes for capillary electrophoresis: II. Computer simulation and comparison with experiments. <i>Electrophoresis</i> , 2002, 23, 2667-2677.	2.4	89
84	Optimization of the high-frequency contactless conductivity detector for capillary electrophoresis. <i>Electrophoresis</i> , 2002, 23, 3520-3527.	2.4	151
85	Ionenes acting as pseudostationary phases in capillary electrokinetic chromatography. <i>Journal of Separation Science</i> , 2002, 25, 1027-1034.	2.5	12
86	Peak broadening in microchip electrophoresis: A discussion of the theoretical background. <i>Electrophoresis</i> , 2002, 23, 3817-3826.	2.4	38
87	Eigenmobilities in background electrolytes for capillary zone electrophoresis. <i>Journal of Chromatography A</i> , 2002, 960, 187-198.	3.7	73
88	Determination of electroosmotic flow mobility with a pressure-mediated dual-ion technique for capillary electrophoresis with conductivity detection using organic solvents. <i>Journal of Chromatography A</i> , 2002, 960, 199-208.	3.7	19
89	Study on the aggregation of teicoplanin. <i>Talanta</i> , 2001, 54, 643-653.	5.5	18
90	Electrokinetic chromatography with micelles, polymeric and monomeric additives with similar chemical functionality as pseudo-stationary phases. <i>Journal of Chromatography A</i> , 2001, 916, 79-87.	3.7	21

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91	New configuration in capillary isotachopheresis—capillary zone electrophoresis coupling. <i>Journal of Chromatography A</i> , 2001, 916, 131-142.	3.7	32
92	Effect of temperature on the separation of long DNA fragments in polymer solution. <i>Journal of Chromatography A</i> , 2001, 916, 305-310.	3.7	5
93	Extension of the application range of UV-absorbing organic solvents in capillary electrophoresis by the use of a contactless conductivity detector. <i>Journal of Chromatography A</i> , 2001, 924, 147-154.	3.7	63
94	Optimization of background electrolytes for capillary electrophoresis. <i>Journal of Chromatography A</i> , 2001, 905, 269-279.	3.7	87
95	Diffusion coefficient and capacity factor in capillary electrokinetic chromatography with replaceable charged polymeric pseudophase. <i>Electrophoresis</i> , 2000, 21, 1505-1512.	2.4	13
96	Dispersive phenomena in electromigration separation methods. <i>Electrophoresis</i> , 2000, 21, 3888-3897.	2.4	69
97	Comparison of separation selectivity in capillary electrokinetic chromatography using a cationic linear polymeric pseudo-stationary phase or monomeric additives of similar structure. <i>Journal of Chromatography A</i> , 2000, 894, 25-34.	3.7	18
98	Capillary Electrokinetic Chromatography with Charged Linear Polymers as a Nonmicellar PseudoStationary Phase: A Determination of Capacity Factors and Characterization by Solvation Parameters. <i>Analytical Chemistry</i> , 2000, 72, 74-80.	6.5	31
99	Electromigration behavior of metal ions in the presence of complexing polymer. <i>Journal of Chromatography A</i> , 1999, 838, 101-109.	3.7	4
100	Peak dispersion due to geometration motion in gel electrophoresis of macromolecules. <i>Journal of Chromatography A</i> , 1999, 838, 45-53.	3.7	33
101	Capillary electrokinetic chromatography with polyethyleneimine as replaceable cationic pseudostationary phase. <i>Journal of Chromatography A</i> , 1999, 853, 121-129.	3.7	28
102	Separation of neutral compounds by capillary electrokinetic chromatography with a replaceable charged linear polymer as pseudo-stationary phase. <i>Journal of Chromatography A</i> , 1998, 798, 269-273.	3.7	18
103	Separation of neutral compounds by capillary electrokinetic chromatography using polyethyleneimine as replaceable cationic pseudostationary phase. <i>Electrophoresis</i> , 1998, 19, 2124-2128.	2.4	25
104	Size-based separation of polyelectrolytes by capillary zone electrophoresis: Migration regimes and selectivity of poly(styrenesulphonates) in solutions of derivatized cellulose. <i>Electrophoresis</i> , 1997, 18, 98-103.	2.4	20
105	Peak broadening in capillary zone electrophoresis. <i>Electrophoresis</i> , 1997, 18, 2123-2133.	2.4	117
106	Gel permeation chromatography of polymers degrading randomly in the column Theoretical treatment and practical aspects. <i>Journal of Chromatography A</i> , 1997, 786, 209-218.	3.7	15
107	Influence of transference number on migration and deformation of concentration boundaries in capillary zone electrophoresis. <i>Electrophoresis</i> , 1996, 17, 1121-1125.	2.4	14
108	Apparent baseline irregularities for neutral markers in capillary zone electrophoresis with electroosmotic flow. <i>Journal of Chromatography A</i> , 1996, 734, 351-356.	3.7	22

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109	Dispersion effects accompanying pressurized zone mobilisation in capillary isoelectric focusing of proteins. <i>Journal of Chromatography A</i> , 1996, 738, 123-128.	3.7	34
110	Dynamics of peak dispersion in capillary zone electrophoresis including wall adsorption I. Theoretical model and results of simulation. <i>Electrophoresis</i> , 1995, 16, 958-967.	2.4	52
111	Dynamics of peak dispersion in capillary zone electrophoresis including wall adsorption: II. Exact analysis of unsteady linear adsorptive dispersion. <i>Electrophoresis</i> , 1995, 16, 2027-2033.	2.4	34
112	Contribution of capillary coiling to zone dispersion in capillary zone electrophoresis. <i>Electrophoresis</i> , 1995, 16, 2034-2038.	2.4	39
113	Electroosmosis in capillary zone electrophoresis with non-uniform zeta potential. <i>Journal of Chromatography A</i> , 1995, 709, 51-62.	3.7	75
114	Contribution of the electroosmotic flow to peak broadening in capillary zone electrophoresis with uniform zeta potential. <i>Journal of Chromatography A</i> , 1995, 709, 63-68.	3.7	34
115	Study of isotachophoretic separation behaviour of metal cations by means of particle-induced X-ray emission VI. Selective separation of twenty metal cations using tartaric acid as a completing agent. <i>Journal of Chromatography A</i> , 1994, 663, 245-254.	3.7	12
116	Simulated quantitative and qualitative isotachophoretic indices of 73 amino acids and peptides in the pH range 6.4–10. <i>Journal of Chromatography A</i> , 1993, 628, 283-308.	3.7	34
117	Axial temperature effects in electromigration. <i>Journal of Chromatography A</i> , 1993, 644, 161-174.	3.7	41
118	Electromigration in systems with additives in background electrolytes. <i>Journal of Chromatography A</i> , 1993, 648, 233-244.	3.7	4
119	Computer simulation and experimental evaluation of on-column sample preconcentration in capillary zone electrophoresis by discontinuous buffer systems. <i>Analytical Chemistry</i> , 1993, 65, 2108-2115.	6.5	98
120	Electromigration in systems with additives in background electrolytes. <i>Journal of Chromatography A</i> , 1992, 623, 337-344.	3.7	23
121	Determination of limiting ionic mobilities and dissociation constants of some local anaesthetics. <i>Journal of Chromatography A</i> , 1992, 596, 265-270.	3.7	18
122	Computer-aided simulation of electromigration. <i>Journal of Chromatography A</i> , 1991, 545, 225-237.	3.7	50
123	Measurement of limiting mobilities by capillary isotachopheresis with a constant temperature at the site of detection. <i>Journal of Chromatography A</i> , 1989, 470, 69-78.	3.7	13
124	Redox series of complexes with a mixed coordination sphere. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1987, 222, 161-171.	0.1	13
125	Electrochemical reduction of ligated species 2,2'-bipyridine and 4,4'-diphenyl-2,2'-bipyridine. <i>Journal of Organometallic Chemistry</i> , 1987, 330, 75-84.	1.8	20
126	Basicity of 1,4-tetracenequinone and its electronic spectra in the protonated states. <i>Collection of Czechoslovak Chemical Communications</i> , 1983, 48, 976-983.	1.0	1

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127	Absorption, luminescence, and polarisation spectra of 1,4-tetracenequinone. Collection of Czechoslovak Chemical Communications, 1983, 48, 538-543.	1.0	1
128	Electronic absorption, fluorescence and polarisation spectra of 1- and 2-amino-9,10-anthraquinones and their interpretation by the method of configuration analysis. Collection of Czechoslovak Chemical Communications, 1982, 47, 2569-2582.	1.0	13
129	Electronic absorption, fluorescence and polarisation spectra of $\hat{1}\pm, \hat{1}\pm'$ -diamino-9,10-anthraquinones and their interpretation by the method of configuration analysis. Collection of Czechoslovak Chemical Communications, 1982, 47, 2583-2593.	1.0	9
130	Electronic absorption, fluorescence and polarisation spectra of $\hat{1}^2, \hat{1}^2'$ -diamino-9,10-anthraquinones and their interpretation by the method of configuration analysis. Collection of Czechoslovak Chemical Communications, 1982, 47, 2594-2603.	1.0	5
131	Electronic absorption, fluorescence and polarisation spectra of $\hat{1}\pm, \hat{1}^2$ -diamino-9,10-anthraquinones and their interpretation by the method of configuration analysis. Collection of Czechoslovak Chemical Communications, 1982, 47, 2604-2614.	1.0	5
132	High-frequency contactless conductivity detection in isotachopheresis. Journal of Chromatography A, 1980, 192, 253-257.	3.7	149
133	Dispersive phenomena in electromigration separation methods. , 0, .		1