

Bohuslav Gašpar

List of Publications by Year in descending order

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133
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4,203
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101496

36
h-index

133188

59
g-index

133
all docs

133
docs citations

133
times ranked

1675
citing authors

#	ARTICLE	IF	CITATIONS
1	Simul 5 " Free dynamic simulator of electrophoresis. <i>Electrophoresis</i> , 2006, 27, 984-991.	1.3	175
2	Optimization of the high-frequency contactless conductivity detector for capillary electrophoresis. <i>Electrophoresis</i> , 2002, 23, 3520-3527.	1.3	151
3	High-frequency contactless conductivity detection in isotachopheresis. <i>Journal of Chromatography A</i> , 1980, 192, 253-257.	1.8	149
4	Eigenmobilities in background electrolytes for capillary zone electrophoresis: IV. Computer program PeakMaster. <i>Electrophoresis</i> , 2004, 25, 3080-3085.	1.3	133
5	High-sensitive capillary zone electrophoresis analysis by electrokinetic injection with transient isotachopheretic preconcentration: Electrokinetic supercharging. <i>Electrophoresis</i> , 2003, 24, 498-504.	1.3	131
6	Separation of twenty underivatized essential amino acids by capillary zone electrophoresis with contactless conductivity detection. <i>Electrophoresis</i> , 2003, 24, 671-677.	1.3	123
7	Peak broadening in capillary zone electrophoresis. <i>Electrophoresis</i> , 1997, 18, 2123-2133.	1.3	117
8	Determination of cationic mobilities and pKa values of 22 amino acids by capillary zone electrophoresis. <i>Electrophoresis</i> , 2004, 25, 309-317.	1.3	108
9	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.	3.2	98
10	Optimization of background electrolytes for capillary electrophoresis: II. Computer simulation and comparison with experiments. <i>Electrophoresis</i> , 2002, 23, 2667-2677.	1.3	89
11	Optimization of background electrolytes for capillary electrophoresis. <i>Journal of Chromatography A</i> , 2001, 905, 269-279.	1.8	87
12	Eigenmobilities in background electrolytes for capillary zone electrophoresis: III. Linear theory of electromigration. <i>Electrophoresis</i> , 2004, 25, 3071-3079.	1.3	82
13	Electroosmosis in capillary zone electrophoresis with non-uniform zeta potential. <i>Journal of Chromatography A</i> , 1995, 709, 51-62.	1.8	75
14	Eigenmobilities in background electrolytes for capillary zone electrophoresis. <i>Journal of Chromatography A</i> , 2002, 960, 187-198.	1.8	73
15	Eigenmobilities in background electrolytes for capillary zone electrophoresis: II. Eigenpeaks in univalent weak electrolytes. <i>Electrophoresis</i> , 2003, 24, 536-547.	1.3	71
16	Dispersive phenomena in electromigration separation methods. <i>Electrophoresis</i> , 2000, 21, 3888-3897.	1.3	69
17	Kohlrausch regulating function and other conservation laws in electrophoresis. <i>Electrophoresis</i> , 2007, 28, 3-14.	1.3	68
18	Simulation of the effects of complex formation equilibria in electrophoresis: I. Mathematical model. <i>Electrophoresis</i> , 2012, 33, 938-947.	1.3	64

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19	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.	1.8	63
20	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.	1.3	60
21	Enhanced selectivity in CZE multi-chiral selector enantioseparation systems: Proposed separation mechanism. <i>Electrophoresis</i> , 2010, 31, 1435-1441.	1.3	54
22	Applicability and limitations of affinity capillary electrophoresis and vacancy affinity capillary electrophoresis methods for determination of complexation constants. <i>Electrophoresis</i> , 2013, 34, 761-767.	1.3	54
23	Conductivity detection in capillary zone electrophoresis: Inspection by PeakMaster. <i>Electrophoresis</i> , 2005, 26, 1948-1953.	1.3	53
24	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.	1.3	52
25	Computer-aided simulation of electromigration. <i>Journal of Chromatography A</i> , 1991, 545, 225-237.	1.8	50
26	Influence of solvent on temperature and thermal peak broadening in capillary zone electrophoresis. <i>Electrophoresis</i> , 2003, 24, 1553-1564.	1.3	50
27	System zones in capillary zone electrophoresis. <i>Electrophoresis</i> , 2004, 25, 3901-3912.	1.3	50
28	Propylene Carbonate as a Nonaqueous Solvent for Capillary Electrophoresis: Mobility and Ionization Constant of Aliphatic Amines. <i>Analytical Chemistry</i> , 2002, 74, 428-433.	3.2	47
29	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.	1.2	46
30	Simulation of the effects of complex formation equilibria in electrophoresis: II. Experimental verification. <i>Electrophoresis</i> , 2012, 33, 948-957.	1.3	43
31	Axial temperature effects in electromigration. <i>Journal of Chromatography A</i> , 1993, 644, 161-174.	1.8	41
32	Twenty years of development of dual and multi-selector models in capillary electrophoresis: A review. <i>Electrophoresis</i> , 2014, 35, 2688-2700.	1.3	40
33	Contribution of capillary coiling to zone dispersion in capillary zone electrophoresis. <i>Electrophoresis</i> , 1995, 16, 2034-2038.	1.3	39
34	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.	1.2	39
35	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.	1.3	38
36	Peak broadening in microchip electrophoresis: A discussion of the theoretical background. <i>Electrophoresis</i> , 2002, 23, 3817-3826.	1.3	38

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37	A nonlinear electrophoretic model for PeakMaster: I. Mathematical model. <i>Electrophoresis</i> , 2012, 33, 923-930.	1.3	38
38	Prediction and understanding system peaks in capillary zone electrophoresis. <i>Journal of Separation Science</i> , 2007, 30, 1435-1445.	1.3	37
39	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.	1.8	34
40	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.	1.3	34
41	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.	1.8	34
42	Dispersion effects accompanying pressurized zone mobilisation in capillary isoelectric focusing of proteins. <i>Journal of Chromatography A</i> , 1996, 738, 123-128.	1.8	34
43	On-line preconcentration of weak electrolytes by electrokinetic accumulation in CE: Experiment and simulation. <i>Electrophoresis</i> , 2007, 28, 1540-1547.	1.3	34
44	Determination of stability constants of complexes of neutral analytes with charged cyclodextrins by affinity capillary electrophoresis. <i>Electrophoresis</i> , 2012, 33, 1032-1039.	1.3	34
45	Peak dispersion due to geometration motion in gel electrophoresis of macromolecules. <i>Journal of Chromatography A</i> , 1999, 838, 45-53.	1.8	33
46	New configuration in capillary isotachophoresis – capillary zone electrophoresis coupling. <i>Journal of Chromatography A</i> , 2001, 916, 131-142.	1.8	32
47	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.	1.8	32
48	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.	1.3	32
49	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.	3.2	31
50	Complexation of Buffer Constituents with Neutral Complexation Agents: Part I. Impact on Common Buffer Properties. <i>Analytical Chemistry</i> , 2013, 85, 8518-8525.	3.2	31
51	Complexation of Buffer Constituents with Neutral Complexation Agents: Part II. Practical Impact in Capillary Zone Electrophoresis. <i>Analytical Chemistry</i> , 2013, 85, 8526-8534.	3.2	30
52	Capillary electrokinetic chromatography with polyethyleneimine as replaceable cationic pseudostationary phase. <i>Journal of Chromatography A</i> , 1999, 853, 121-129.	1.8	28
53	A nonlinear electrophoretic model for PeakMaster: Part III. Electromigration dispersion in systems that contain a neutral complex-forming agent and a fully charged analyte. <i>Theory. Journal of Chromatography A</i> , 2012, 1267, 102-108.	1.8	28
54	The importance of capillary electrophoresis, capillary electrochromatography, and ion chromatography in separations of inorganic ions. <i>Electrophoresis</i> , 2003, 24, 1883-1891.	1.3	27

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55	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. <i>Journal of Chromatography A</i> , 2012, 1267, 109-115.	1.8	27
56	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. <i>Journal of Chromatography A</i> , 2014, 1364, 276-288.	1.8	27
57	Separation of neutral compounds by capillary electrokinetic chromatography using polyethyleneimine as replaceable cationic pseudostationary phase. <i>Electrophoresis</i> , 1998, 19, 2124-2128.	1.3	25
58	Eigenmobilities in background electrolytes for CZE. V. Intensity (amplitudes) of system peaks. <i>Electrophoresis</i> , 2006, 27, 4610-4617.	1.3	24
59	Theory of electrophoresis: Fate of one equation. <i>Electrophoresis</i> , 2009, 30, S7-15.	1.3	24
60	A nonlinear electrophoretic model for PeakMaster: Experimental verification. <i>Electrophoresis</i> , 2012, 33, 931-937.	1.3	24
61	Electromigration in systems with additives in background electrolytes. <i>Journal of Chromatography A</i> , 1992, 623, 337-344.	1.8	23
62	Reliable electrophoretic mobilities free from Joule heating effects using CE. <i>Electrophoresis</i> , 2007, 28, 3759-3766.	1.3	23
63	Electrophoresis on a microfluidic chip for analysis of fluorescence-labeled human rhinovirus. <i>Electrophoresis</i> , 2007, 28, 4734-4740.	1.3	23
64	Apparent baseline irregularities for neutral markers in capillary zone electrophoresis with electroosmotic flow. <i>Journal of Chromatography A</i> , 1996, 734, 351-356.	1.8	22
65	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.	1.2	22
66	Simulation of the effects of complex formation equilibria in electrophoresis: III. Simultaneous effects of chiral selector concentration and background electrolyte pH. <i>Electrophoresis</i> , 2012, 33, 3012-3020.	1.3	22
67	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.	1.8	21
68	Separation efficiency of dual-selector systems in capillary electrophoresis. <i>Journal of Chromatography A</i> , 2014, 1330, 82-88.	1.8	21
69	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.	0.8	20
70	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.	1.3	20
71	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.	1.2	20
72	Determination of thermodynamic acidity constants and limiting ionic mobilities of weak electrolytes by capillary electrophoresis using a new free software AnglerFish. <i>Electrophoresis</i> , 2020, 41, 493-501.	1.3	20

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73	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.	1.8	19
74	Oscillating electrolytes. <i>Electrophoresis</i> , 2006, 27, 513-518.	1.3	19
75	Determination of effective mobilities of EOF markers in BGE containing sulfated β -cyclodextrin by a two-detector method. <i>Electrophoresis</i> , 2013, 34, 768-776.	1.3	19
76	Determination of limiting ionic mobilities and dissociation constants of some local anaesthetics. <i>Journal of Chromatography A</i> , 1992, 596, 265-270.	1.8	18
77	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.	1.8	18
78	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.	1.8	18
79	Study on the aggregation of teicoplanin. <i>Talanta</i> , 2001, 54, 643-653.	2.9	18
80	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.	1.3	17
81	Simul 6: A fast dynamic simulator of electromigration. <i>Electrophoresis</i> , 2021, 42, 1291-1299.	1.3	17
82	Simulation of desalting that occurs during isoelectric trapping separations. <i>Electrophoresis</i> , 2009, 30, 433-443.	1.3	16
83	Generalized model of electromigration with 1:1 (analyte:selector) complexation stoichiometry: Part I. Theory. <i>Journal of Chromatography A</i> , 2015, 1384, 142-146.	1.8	16
84	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.	1.8	15
85	Influence of transference number on migration and deformation of concentration boundaries in capillary zone electrophoresis. <i>Electrophoresis</i> , 1996, 17, 1121-1125.	1.3	14
86	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.	1.3	14
87	Determination of the correct migration time and other parameters of the Haarhoff-van der Linde function from the peak geometry characteristics. <i>Electrophoresis</i> , 2015, 36, 655-661.	1.3	14
88	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. <i>Electrophoresis</i> , 2020, 41, 514-522.	1.3	14
89	Redox series of complexes with a mixed coordination sphere. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1987, 222, 161-171.	0.3	13
90	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.	1.8	13

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91	Diffusion coefficient and capacity factor in capillary electrokinetic chromatography with replaceable charged polymeric pseudophase. <i>Electrophoresis</i> , 2000, 21, 1505-1512.	1.3	13
92	System peaks in micellar electrophoresis: I. Utilization of system peaks for determination of critical micelle concentration. <i>Electrophoresis</i> , 2008, 29, 1189-1195.	1.3	13
93	Electronic absorption, fluorescence and polarisation spectra of 1- and 2-amino-9,10-anthraquinones and their interpretation by the method of configuration analysis. <i>Collection of Czechoslovak Chemical Communications</i> , 1982, 47, 2569-2582.	1.0	13
94	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.	1.8	12
95	Ionenes acting as pseudostationary phases in capillary electrokinetic chromatography. <i>Journal of Separation Science</i> , 2002, 25, 1027-1034.	1.3	12
96	Generalized model of electromigration with 1:1 (analyte:selector) complexation stoichiometry: Part II. Application to dual systems and experimental verification. <i>Journal of Chromatography A</i> , 2015, 1384, 147-154.	1.8	12
97	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.	1.3	10
98	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.	1.2	9
99	Enhancement of the conductivity detection signal in capillary electrophoresis systems using neutral cyclodextrins as sweeping agents. <i>Electrophoresis</i> , 2018, 39, 1390-1398.	1.3	9
100	Electrolysis phenomena in electrophoresis. <i>Electrophoresis</i> , 2020, 41, 536-544.	1.3	9
101	Electronic absorption, fluorescence and polarisation spectra of 1,1'-diamino-9,10-anthraquinones and their interpretation by the method of configuration analysis. <i>Collection of Czechoslovak Chemical Communications</i> , 1982, 47, 2583-2593.	1.0	9
102	Determination of the surface heat transfer coefficient in CE. <i>Electrophoresis</i> , 2009, 30, 910-920.	1.3	8
103	The dynamics of band (peak) shape development in capillary zone electrophoresis in light of the linear theory of electromigration. <i>Electrophoresis</i> , 2019, 40, 668-682.	1.3	8
104	Methods for determination of all binding parameters in systems with simultaneous borate and cyclodextrin complexation. <i>Journal of Chromatography A</i> , 2011, 1218, 7211-7218.	1.8	7
105	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.	1.3	6
106	Equivalent peak resolution: Characterization of the extent of separation for two components based on their relative peak overlap. <i>Electrophoresis</i> , 2015, 36, 646-654.	1.3	6
107	Mathematical model of electromigration allowing the deviation from electroneutrality. <i>Electrophoresis</i> , 2021, 42, 881-889.	1.3	6
108	Effect of temperature on the separation of long DNA fragments in polymer solution. <i>Journal of Chromatography A</i> , 2001, 916, 305-310.	1.8	5

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109	Determination of relative enantiomer migration order using a racemic sample. Journal of Chromatography A, 2015, 1424, 139-143.	1.8	5
110	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
111	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
112	Electromigration in systems with additives in background electrolytes. Journal of Chromatography A, 1993, 648, 233-244.	1.8	4
113	Electromigration behavior of metal ions in the presence of complexing polymer. Journal of Chromatography A, 1999, 838, 101-109.	1.8	4
114	Pushing Capillary Electrophoresis in Chip Format into the Low Cost Region. ECS Transactions, 2006, 3, 407-416.	0.3	2
115	Occurrence and behavior of system peaks in RP HPLC with solely aqueous mobile phases. Journal of Separation Science, 2009, 32, 2864-2870.	1.3	2
116	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.	1.3	2
117	Editorial. Electrophoresis, 2013, 34, 621-621.	1.3	1
118	Dispersive phenomena in electromigration separation methods. , 0, .		1
119	Basicity of 1,4-tetracenequinone and its electronic spectra in the protonated states. Collection of Czechoslovak Chemical Communications, 1983, 48, 976-983.	1.0	1
120	Absorption, luminiscence, and polarisation spectra of 1,4-tetracenequinone. Collection of Czechoslovak Chemical Communications, 1983, 48, 538-543.	1.0	1
121	Editorial: Electrophoresis 3/2003. Electrophoresis, 2003, 24, 313-313.	1.3	0
122	Editorial: Electrophoresis 2/2005. Electrophoresis, 2005, 26, 295-295.	1.3	0
123	Fundamentals of Electrophoresis 2006. Electrophoresis, 2006, 27, 511-512.	1.3	0
124	Fundamentals of Electrophoresis 2007. Electrophoresis, 2007, 28, 493-494.	1.3	0
125	Fundamentals of Electrophoresis. Electrophoresis, 2008, 29, 975-976.	1.3	0
126	Editorial. Electrophoresis, 2009, 30, 713-713.	1.3	0

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127	Editorial. Electrophoresis, 2010, 31, 725-725.	1.3	0
128	Fundamentals. Electrophoresis, 2012, 33, 891-892.	1.3	0
129	Fundamentals 2014. Electrophoresis, 2014, 35, 595-595.	1.3	0
130	Special Issue of Electrophoresis on Fundamentals. Electrophoresis, 2015, 36, 641-641.	1.3	0
131	Editorial. Electrophoresis, 2019, 40, 605-605.	1.3	0
132	Fundamentals of Electrophoresis. Electrophoresis, 2020, 41, 413-413.	1.3	0
133	Editorial Fundamentals 2021. Electrophoresis, 2021, 42, 813-813.	1.3	0