Karel Slais

List of Publications by Year
in descending order

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87	1,457	361413	434195
papers	citations	20 h-index	31 g-index

87	87	87	639
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Capillary isoelectric focusing of microorganisms in the pH range 2â€“5 in a dynamically modified FS capillary with UV detection. Analytical and Bioanalytical Chemistry, 2006, 385, 840-846.	3.7	75
2	Capillary isoelectric focusing of proteins and microorganisms in dynamically modified fused silica with UV detection. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2006, 841, 152-159.	2.3	63
3	New azo dyes as colored isoelectric point markers for isoelectric focusing in acidic pH region. Electrophoresis, 2005, 26, 53-59.	2.4	62
4	Ampholytic dyes for spectroscopic determination of pH in electrofocusing. Journal of Chromatography A, 1995, 695, 113-122.	3.7	57
5	Capillary isoelectric focusing with UV-induced fluorescence detection. Journal of Chromatography A, 2001, 916, 65-71.	3.7	42
6	Behaviour of substituted aminomethylphenol dyes in capillary isoelectric focusing with electroosmotic zone displacement. Journal of Chromatography A, 1994, 680, 549-559.	3.7	41
7	Dynamics of gel isoelectric focusing with ampholytic dyes monitored by camera in real-time. Journal of Chromatography A, 2003, 1008, 193-203.	3.7	40
8	Colored pI standards and gel isoelectric focusing in strongly acidic pH. Analytical and Bioanalytical Chemistry, 2005, 382, 65-72.	3.7	36
9	Minimization of extra-column effects with microbore columns using electrochemical detection. Journal of Chromatography A, 1983, 258, 57-63.	3.7	35
10	Fluorescein-based pImarkers for capillary isoelectric focusing with laser-induced fluorescence detection. Electrophoresis, 2002, 23, 1682.	2.4	35
11	Capillary Isoelectric Focusing and Fluorometric Detection of Proteins and Microorganisms Dynamically Modified by Poly(ethylene glycol) Pyrenebutanoate. Analytical Chemistry, 2006, 78, 8438-8444.	6.5	34
12	Low-conductivity background electrolytes in capillary zone electrophoresis â€” myth or reality?. Electrophoresis, 2000, 21, 2814-2827.	2.4	33
13	Free flow and capillary isoelectric focusing of bacteria from the tomatoes plant tissues. Journal of Chromatography A, 2009, 1216, 1019-1024.	3.7	31
14	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. Analytica Chimica Acta, 2013, 788, 193-199.	5.4	27
15	Separation of similar yeast strains by IEF techniques. Electrophoresis, 2009, 30, 2134-2141.	2.4	24
16	Elimination of peak splitting in the liquid chromatography of the proline-containing drug enalapril maleate. Journal of Chromatography A, 1991, 537, 249-257.	3.7	23
17	Sol-gel column technology for capillary isoelectric focusing of microorganisms and biopolymers with UV or fluorometric detection. Electrophoresis, 2003, 24, 1383-1390.	2.4	23
18	Dynamic modification of microorganisms by pyrenebutanoate for fluorometric detection in capillary zone electrophoresis. Electrophoresis, 2005, 26, 548-555.	2.4	23

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19	Model of electrophoretic focusing in a natural pH gradient moving in a tapered capillary. Journal of Chromatography A, 1994, 684, 149-161.	3.7	22
20	CE separation of proteins and yeasts dynamically modified by PEG pyrenebutanoate with fluorescence detection. Electrophoresis, 2007, 28, 2300-2307.	2.4	22
21	Capillary and gel electromigration techniques and MALDI-TOF MS â€“ Suitable tools for identification of filamentous fungi. Analytica Chimica Acta, 2012, 716, 155-162.	5.4	21
22	Combination of Capillary Isoelectric Focusing in a Tapered Capillary with MALDI-TOF MS for Rapid and Reliable Identification of Dickeya Species from Plant Samples. Analytical Chemistry, 2013, 85, 6806-6812.	6.5	20
23	Candida â€œPsilosisâ€•â€“ electromigration techniques and MALDI-TOF mass spectrometry for phenotypical discrimination. Analyst, The, 2012, 137, 1937.	3.5	19
24	Wire detector with an alkali flame ionization sensing element for liquid chromatography. Journal of Chromatography A, 1974, 91, 181-186.	3.7	18
25	Electrophoretic focusing in a natural steady state moving pH gradient. Journal of Separation Science, 1993, 5, 469-479.	1.0	18
26	Separation of Plant Pathogens from Different Hosts and Tissues by Capillary Electromigration Techniques. Analytical Chemistry, 2007, 79, 9539-9546.	6.5	18
27	Capillary Electromigration Separation of Proteins and Microorganisms Dynamically Modified by Chromophoric Nonionogenic Surfactant. Analytical Chemistry, 2009, 81, 6897-6904.	6.5	18
28	Electromigration techniques â€“ a fast and economical tool for differentiation of similar strains of microorganisms. Analyst, The, 2010, 135, 1636.	3.5	18
29	New solution <scp>IEF</scp> device for micropreparative separation of peptides and proteins. Electrophoresis, 2013, 34, 1519-1525.	2.4	18
30	Singleâ€•input divergent flow IEF for preparative analysis of proteins. Electrophoresis, 2008, 29, 4503-4507.	2.4	17
31	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. Electrophoresis, 2017, 38, 1260-1267.	2.4	17
32	Model of isotachophoresis (displacement electrophoresis) in tapered capillaries. Electrophoresis, 1995, 16, 2060-2068.	2.4	16
33	Preparative isoelectric focusing of microorganisms in cellulose-based separation medium and subsequent analysis by CIEF and MALDI-TOF MS. Analytica Chimica Acta, 2017, 990, 185-193.	5.4	16
34	A conductivity detector for liquid chromatography with a cell volume of 0.1 Î¼l. Collection of Czechoslovak Chemical Communications, 1983, 48, 1129-1136.	1.0	15
35	Open-tubular mixer for gradient preparation in microbore high-performance liquid chromatography. Analytical Chemistry, 1987, 59, 376-379.	6.5	15
36	Fluorescence detection system for capillary separations utilizing a liquid core waveguide with an optical fibre-coupled compact spectrometer. Journal of Chromatography A, 2005, 1081, 36-41.	3.7	15

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37	Divergent flow isoelectric focusing: fast and efficient method for protein sample preparation for mass spectrometry. Analytical and Bioanalytical Chemistry, 2009, 393, 1769-1778.	3.7	15
38	Displacement electrophoresis of ampholytes in a continuous pH gradient moving in a capillary with a non-constant cross-section. Journal of Chromatography A, 1997, 768, 283-294.	3.7	14
39	Two-dimensional gel isoelectric focusing. Electrophoresis, 2005, 26, 3586-3591.	2.4	14
40	Divergent flow isoelectric focusing. Electrophoresis, 2008, 29, 2451-2457.	2.4	14
41	Preparative divergent flow IEF without carrier ampholytes for separation of complex biological samples. Electrophoresis, 2010, 31, 433-439.	2.4	14
42	Testing of the influenza virus purification by CIEF. Electrophoresis, 2010, 31, 331-338.	2.4	13
43	Separation of phenotypically indistinguishable Candida species, C. orthopsilosis, C. metapsilosis and C. parapsilosis, by capillary electromigration techniques. Journal of Chromatography A, 2011, 1218, 3900-3907.	3.7	13
44	Combination of micropreparative solution isoelectric focusing and high-performance liquid chromatography for differentiation of biofilm-positive and biofilm-negative Candida parapsilosis group from vascular catheter. Analytica Chimica Acta, 2014, 812, 243-249.	5.4	13
45	Pyrenebutanoate as a dynamic protein modifier for fluorometric detection in capillary zone electrophoresis. Electrophoresis, 2002, 23, 1090-1095.	2.4	12
46	Capillary Electrophoresis of Conidia from Cultivated Microscopic Filamentous Fungi. Analytical Chemistry, 2009, 81, 3997-4004.	6.5	12
47	Isoelectric Focusing in Continuously Tapered Fused Silica Capillary Prepared by Etching with Supercritical Water. Analytical Chemistry, 2013, 85, 4296-4300.	6.5	12
48	CIEF separation, UV detection, and quantification of ampholytic antibiotics and bacteria from different matrices. Analytical and Bioanalytical Chemistry, 2014, 406, 6285-6296.	3.7	12
49	Low-molecular-mass nitrophenol-based compounds suitable for the effective tracking of pH gradient in isoelectric focusing. Analytica Chimica Acta, 2019, 1076, 144-153.	5.4	12
50	Capillary electrophoresis with preparative isoelectric focusing preconcentration for sensitive determination of amphotericin B inÂhuman blood serum. Analytica Chimica Acta, 2019, 1053, 162-168.	5.4	12
51	Automated instrumentation for miniaturized displacement electrophoresis with on-column photometric detection. Journal of Chromatography A, 1996, 730, 261-272.	3.7	11
52	Dynamic labeling of diagnostically significant microbial cells in cerebrospinal fluid by red chromophoric non-ionogenic surfactant for capillary electrophoresis separations. Analytica Chimica Acta, 2012, 728, 86-92.	5.4	11
53	Electrolyte system for fast preparative focusing in wide pH range based on bidirectional isotachophoresis. Electrophoresis, 2014, 35, 2438-2445.	2.4	11
54	Preparative isoelectric focusing in a celluloseâ€based separation medium. Journal of Separation Science, 2017, 40, 2498-2505.	2.5	11

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55	Supercritical water-treated fused silica capillaries in analytical separations: Status review. Journal of Chromatography A, 2018, 1539, 1-11.	3.7	11
56	Identification of bacterial uropathogens by preparative isoelectric focusing and matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Journal of Chromatography A, 2018, 1532, 232-237.	3.7	11
57	Preparation of short glass microbore columns for liquid chromatography and their properties. Collection of Czechoslovak Chemical Communications, 1984, 49, 764-771.	1.0	11
58	Determination of the isoelectric points of low and high molecular mass ampholytes by capillary electrophoresis. Electrophoresis, 1993, 14, 475-479.	2.4	10
59	Miniaturized liquid core waveguide-based fluorimetric detection cell for capillary separation methods: Application in CE of amino acids. Electrophoresis, 2006, 27, 4658-4665.	2.4	10
60	Mass spectrometric characterization of low-molecular-mass color pI markers and their use for direct determination of pI value of proteins. Journal of Mass Spectrometry, 2006, 41, 1570-1577.	1.6	9
61	Capillary electrophoresis in a fused-silica capillary with surface roughness gradient. Journal of Separation Science, 2016, 39, 3827-3834.	2.5	9
62	Transitory mobile phase environments for rapid selectivity changes in liquid chromatography: application to organic dyestuffs. Analytical Chemistry, 1987, 59, 79-85.	6.5	8
63	Suggested definition of zone resolution and zone capacity in separations of weak electrolytes or ampholytes by steady-state electrophoretic methods. Journal of Chromatography A, 1994, 679, 335-344.	3.7	8
64	Use of micellar partition in capillary isotachophoretic focusing. Journal of Chromatography A, 1999, 832, 265-271.	3.7	8
65	Novel stainingâ€free proteomic method for simultaneous identification of proteins and determination of their pI values by using lowâ€molecularâ€mass pI markers. Electrophoresis, 2007, 28, 3315-3323.	2.4	8
66	The trace analysis of microorganisms in real samples by combination of a filtration microcartridge and capillary isoelectric focusing. Analytical and Bioanalytical Chemistry, 2011, 400, 3133-3140.	3.7	8
67	Divergentâ€flow isoelectric focusing for separation and preparative analysis of peptides. Electrophoresis, 2012, 33, 1687-1694.	2.4	8
68	Simple power supply for power load controlled isoelectric focusing. Electrophoresis, 2014, 35, 1114-1117.	2.4	8
69	Microcolumn liquid chromatography with sample induced internal pH gradient. Journal of Separation Science, 1991, 3, 191-198.	1.0	7
70	Effect of surface modification and mobile phase velocity on the performance of parallel current open tubular liquid chromatography. Journal of Separation Science, 1993, 5, 63-69.	1.0	6
71	Isotachophoretic focusing of strong electrolytes on the background of carrier ampholytes. Journal of Chromatography A, 1998, 798, 223-232.	3.7	6
72	Continuous fast focusing in a trapezoidal void channel based on bidirectional isotachophoresis in a wide pH range. Electrophoresis, 2015, 36, 2579-2586.	2.4	6

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73	Low-molecular-mass colored compounds for fine tracing of pH gradient on broad and narrow scale in isoelectric focusing. Analytica Chimica Acta, 2022, 1221, 340035.	5.4	6
74	Parallel-current open-tubular liquid chromatography with fluorimetric detection. Journal of Chromatography A, 1994, 660, 187-194.	3.7	5
75	p I -Control in comparative fluorescence gel electrophoresis (CoFGE) using amphoteric azo dyes. EuPA Open Proteomics, 2015, 8, 36-39.	2.5	5
76	pI-Control in Comparative Fluorescence Gel Electrophoresis (CoFGE) using amphoteric azo dyes. Data in Brief, 2015, 3, 221-228.	1.0	5
77	Utilization of Red Nonionogenic Tenside Labeling, Isoelectric Focusing, and Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry in the Identification of Uropathogens in the Presence of a High Level of Albumin. ACS Infectious Diseases, 2019, 5, 1348-1356.	3.8	5
78	The use of micro-HPLC with gradient elution for the characterization of phenol-formaldehyde resins. Angewandte Makromolekulare Chemie, 1987, 150, 179-187.	0.2	4
79	Isotachophoretic focusing of strong and weak electrolytes in combined pH and conductivity gradients. Journal of Chromatography A, 1999, 838, 71-80.	3.7	4
80	Rapid separation and identification of the subtypes of swine and equine influenza A viruses by electromigration techniques with UV and fluorometric detection. Analyst, The, 2011, 136, 3010.	3.5	4
81	Preparative and capillary isoelectric focusing for detection and identification of Aspergillus conidia in complex sample matrices. Journal of Separation Science, 2018, 41, 4203-4211.	2.5	4
82	On-line precolumn photochemical generation of pH gradient: micro-high-performance liquid chromatography of methotrexate and its impurities. Journal of Chromatography A, 1990, 522, 205-211.	3.7	3
83	DNA purification and concentration by isotachophoresis in nonwoven fabric strip. Analytica Chimica Acta, 2020, 1117, 41-47.	5.4	3
84	Preparative continuous flow electrophoretic instrumentation for purification of biological samples. Electrophoresis, 2021, 42, 2103-2111.	2.4	3
85	Separation of attogram terpenes by the capillary zone electrophoresis with fluorometric detection. Journal of Chromatography A, 2010, 1217, 7288-7292.	3.7	1
86	Direct and Indirect Applications of Sub- and Supercritical Water in Food-Related Analysis. Food Engineering Series, 2015, , 269-302.	0.7	0
87	Lowâ€molecularâ€weight color pI markers to monitor onâ€line the peptide focusing process in OFFGEL fractionation. Electrophoresis, 2017, 38, 2034-2041.	2.4	0