Petr Tuma

List of Publications by Year in descending order

78 papers	1,673 citations	257450 24 h-index	345221 36 g-index
78 all docs	78 docs citations	78 times ranked	1466 citing authors

#	Article	IF	Citations
1	Menthol-based hydrophobic deep eutectic solvents: Towards greener and efficient extraction of phytocannabinoids. Journal of Cleaner Production, 2018, 193, 391-396.	9.3	125
2	Determination of the spectrum of low molecular mass organic acids in urine by capillary electrophoresis with contactless conductivity and ultraviolet photometric detectionâ€"An efficient tool for monitoring of inborn metabolic disorders. Analytica Chimica Acta, 2011, 685, 84-90.	5.4	79
3	Determination of free amino acids and related compounds in amniotic fluid by capillary electrophoresis with contactless conductivity detection. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2006, 839, 12-18.	2.3	69
4	Rapid monitoring of arrays of amino acids in clinical samples using capillary electrophoresis with contactless conductivity detection. Journal of Separation Science, 2010, 33, 2394-2401.	2.5	63
5	Rapid monitoring of mono- and disaccharides in drinks, foodstuffs and foodstuff additives by capillary electrophoresis with contactless conductivity detection. Analytica Chimica Acta, 2011, 698, 1-5.	5.4	58
6	Determination of Proteinogenic Amino Acids in Human Plasma by Capillary Electrophoresis with Contactless Conductivity Detection. Electroanalysis, 2006, 18, 152-157.	2.9	45
7	Rapid determination of branched chain amino acids in human blood plasma by pressureâ€assisted capillary electrophoresis with contactless conductivity detection. Electrophoresis, 2015, 36, 1969-1975.	2.4	44
8	Large-volume sample stacking for in vivo monitoring of trace levels of Î³-aminobutyric acid, glycine and glutamate in microdialysates of periaqueductal gray matter by capillary electrophoresis with contactless conductivity detection. Journal of Chromatography A, 2013, 1303, 94-99.	3.7	41
9	Contactless Impedance Sensors and Their Application to Flow Measurements. Sensors, 2013, 13, 2786-2801.	3.8	41
10	Determination of amino acids by capillary and microchip electrophoresis with contactless conductivity detection â€“ Theory, instrumentation and applications. Talanta, 2021, 224, 121922.	5.5	41
11	Determination of 3-methylhistidine and 1-methylhistidine in untreated urine samples by capillary electrophoresis. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2005, 821, 53-59.	2.3	40
12	Simultaneous and rapid determination of caffeine and taurine in energy drinks by MEKC in a short capillary with dual contactless conductivity/photometry detection. Electrophoresis, 2014, 35, 1660-1665.	2.4	35
13	Large volume sample stacking for rapid and sensitive determination of antidiabetic drug metformin in human urine and serum by capillary electrophoresis with contactless conductivity detection. Journal of Chromatography A, 2014, 1345, 207-211.	3.7	35
14	Rapid determinations of saccharides in high-energy drinks by short-capillary electrophoresis with contactless conductivity detection. Analytical and Bioanalytical Chemistry, 2012, 404, 1549-1554.	3.7	33
15	Rapid determination of globin chains in red blood cells by capillary electrophoresis using <scp>INSTC</scp>oated fusedâ€silica capillary. Journal of Separation Science, 2014, 37, 1026-1032.	2.5	33
16	Frequent intravenous pulses of growth hormone together with glutamine supplementation in prolonged critical illness after multiple trauma: Effects on nitrogen balance, insulin resistance, and substrate oxidation*. Critical Care Medicine, 2008, 36, 1707-1713.	0.9	32
17	Pressureâ€assisted introduction of urine samples into a short capillary for electrophoretic separation with contactless conductivity and UV spectrometry detection. Electrophoresis, 2015, 36, 1962-1968.	2.4	32
18	Determination of ammonia, creatinine and inorganic cations in urine using CE with contactless conductivity detection. Journal of Separation Science, 2008, 31, 2260-2264.	2.5	31

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19	Very fast electrophoretic determination of creatinine and uric acid in human urine using a combination of two capillaries with different internal diameters. Electrophoresis, 2014, 35, 956-961.	2.4	31
20	Frequencyâ€tuned contactless conductivity detector for the electrophoretic separation of clinical samples in capillaries with very small internal dimensions. Journal of Separation Science, 2017, 40, 940-947.	2.5	31
21	Dual-channel capillary electrophoresis for simultaneous determination of cations and anions. Journal of Chromatography A, 2016, 1446, 158-163.	3.7	29
22	Determination of 1-methylhistidine and 3-methylhistidine by capillary and chip electrophoresis with contactless conductivity detection. Electrophoresis, 2007, 28, 2174-2180.	2.4	28
23	Contactless Conductivity Detection in Capillary Electrophoresis Employing Capillaries with Very Low Inner Diameters. Electroanalysis, 2011, 23, 1870-1874.	2.9	27
24	The use of capillary electrophoresis with contactless conductivity detection for sensitive determination of stevioside and rebaudioside A in foods and beverages. Food Chemistry, 2017, 219, 193-198.	8.2	25
25	Quantification of paracetamol and 5-oxoproline in serum by capillary electrophoresis: Implication for clinical toxicology. Journal of Pharmaceutical and Biomedical Analysis, 2017, 145, 616-620.	2.8	24
26	A dual spectrophotometric/contactless conductivity detector for CE determination of incompletely separated amino acids. Journal of Separation Science, 2008, 31, 353-355.	2.5	23
27	A determination of submicromolar concentrations of glycine in periaqueductal gray matter microdialyzates using capillary zone electrophoresis with contactless conductivity detection. Electrophoresis, 2009, 30, 3436-3441.	2.4	23
28	Capillary and microchip electrophoresis with contactless conductivity detection for analysis of foodstuffs and beverages. Food Chemistry, 2022, 375, 131858.	8.2	23
29	Direct sample injection from a syringe needle into a separation capillary. Analytica Chimica Acta, 2018, 1042, 133-140.	5.4	20
30	Separation of anaesthetic ketamine and its derivates in PAMAPTAC coated capillaries with tuneable counter-current electroosmotic flow. Talanta, 2020, 217, 121094.	5.5	20
31	Frequent intravenous pulses of growth hormone together with alanylglutamine supplementation in prolonged critical illness after multiple trauma: Effects on glucose control, plasma IGF-I and glutamine. Growth Hormone and IGF Research, 2008, 18, 82-87.	1.1	19
32	Electrokinetic injection of samples into a short electrophoretic capillary controlled by piezoelectric micropumps. Electrophoresis, 2016, 37, 595-600.	2.4	19
33	Electrophoretic stacking for sensitive determination of antibiotic ceftazidime in human blood and microdialysates from diabetic foot. Analytica Chimica Acta, 2016, 942, 139-145.	5.4	19
34	Monitoring of adipose tissue metabolism using microdialysis and capillary electrophoresis with contactless conductivity detection. Talanta, 2019, 192, 380-386.	5.5	19
35	Improved detection limit for a direct determination of 8-hydroxy-2â€²-deoxyguanosine in untreated urine samples by capillary electrophoresis with optical detection. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2004, 813, 255-261.	2.3	18
36	Chronic dietary exposure to branched chain amino acids impairs glucose disposal in vegans but not in omnivores. European Journal of Clinical Nutrition, 2017, 71, 594-601.	2.9	18

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37	Increased Incretin But Not Insulin Response after Oral versus Intravenous Branched Chain Amino Acids. Annals of Nutrition and Metabolism, 2017, 70, 293-302.	1.9	18
38	Determination of uric acid in plasma and allantoic fluid of chicken embryos by capillary electrophoresis. Journal of Separation Science, 2007, 30, 1947-1952.	2.5	17
39	Measuring venous-arterial differences of valine, isoleucine, leucine, alanine and glutamine in skeletal muscles using counter-current electrophoresis with contactless conductivity detection. Journal of Electroanalytical Chemistry, 2020, 857, 113772.	3.8	17
40	A Comparison of the Properties of Contactless Conductivity and Diodeâ€Array Photometric Detectors in Analyses of Lowâ€Molecular, Biologically Active Substances by Capillary Electrophoresis in Acetic Acid Solutions. Electroanalysis, 2008, 20, 477-484.	2.9	16
41	The use of capillary electrophoresis with contactless conductivity detection for monitoring of glycerol in adipose tissues during a sporting performance. Electrophoresis, 2010, 31, 2037-2043.	2.4	16
42	Hydrodynamic sample injection into short electrophoretic capillary in systems with a flow-gating interface. Journal of Chromatography A, 2017, 1480, 93-98.	3.7	15
43	Novel electrophoretic acetonitrile-based stacking for sensitive monitoring of the antiepileptic drug perampanel in human serum. Journal of Pharmaceutical and Biomedical Analysis, 2018, 160, 368-373.	2.8	15
44	An airâ€assisted flowâ€gating interface for capillary electrophoresis. Electrophoresis, 2019, 40, 587-590.	2.4	14
45	On-line coupling of capillary electrophoresis with microdialysis for determining saccharides in dairy products and honey. Food Chemistry, 2020, 316, 126362.	8.2	14
46	A simple impedance tester for determining the water content in organic solvents. Sensors and Actuators B: Chemical, 2015, 220, 485-490.	7.8	13
47	Coaxial flowâ€gating interface for capillary electrophoresis. Journal of Separation Science, 2017, 40, 3138-3143.	2.5	13
48	Electrophoretic large volume sample stacking for sensitive determination of the antiâ€microbial agent pentamidine in rat plasma for pharmacological studies. Electrophoresis, 2018, 39, 2605-2611.	2.4	13
49	Large volume sample stacking of antiepileptic drugs in counter current electrophoresis performed in PAMAPTAC coated capillary. Talanta, 2021, 221, 121626.	5.5	12
50	Split-flow injector for capillary zone electrophoresis. Journal of Chromatography A, 2000, 883, 223-230.	3.7	10
51	The Dependence of the Sensitivity and Reliability of Contactless Conductivity Detection on the Wall Thickness of Electrophoretic Fused-Silica Capillaries. Electroanalysis, 2009, 21, 590-594.	2.9	10
52	Very fast electrophoretic separation on commercial instruments using a combination of two capillaries with different internal diameters. Electrophoresis, 2013, 34, 552-556.	2.4	10
53	Lactate production without hypoxia in skeletal muscle during electrical cycling: Crossover study of femoral venous-arterial differences in healthy volunteers. PLoS ONE, 2019, 14, e0200228.	2.5	10
54	Rapid electrophoretic monitoring of the anaesthetic ketamine and its metabolite norketamine in rat blood using a contactless conductivity detector to study the pharmacokinetics. Journal of Separation Science, 2019, 42, 2062-2068.	2.5	10

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55	Rapid determination of majority cations in yoghurts using on-line connection of capillary electrophoresis with mini-dialysis. Food Chemistry, 2020, 308, 125647.	8.2	10
56	Monitoring of circulating amino acids in patients with pancreatic cancer and cancer cachexia using capillary electrophoresis and contactless conductivity detection. Electrophoresis, 2021, 42, 1885-1891.	2.4	10
57	Mitochondrial Probe Methyltriphenylphosphonium (TPMP) Inhibits the Krebs Cycle Enzyme 2-Oxoglutarate Dehydrogenase. PLoS ONE, 2016, 11, e0161413.	2.5	10
58	Determination of Intact Heparin by Capillary Electrophoresis with Contactless Conductivity Detection in Background Electrolytes Containing Hydrophilic Polymers. Collection of Czechoslovak Chemical Communications, 2008, 73, 187-200.	1.0	9
59	The use of polarity switching for the sensitive determination of nitrate in human cerebrospinal fluid by capillary electrophoresis with contactless conductivity detection. Journal of Chromatography A, 2016, 1447, 148-154.	3.7	9
60	Dialysis of one sample drop on-line connected with electrophoresis in short capillary. Talanta, 2020, 219, 121252.	5.5	9
61	Monitoring of amoxicilline and ceftazidime in the microdialysate of diabetic foot and serum by capillary electrophoresis with contactless conductivity detection. Electrophoresis, 2022, , .	2.4	8
62	Voltammetric and capillary electrophoretic study of scavenger kinetics of methylglyoxal by antidiabetic biguanide drugs. Journal of Electroanalytical Chemistry, 2016, 777, 26-32.	3.8	7
63	Electrophoretic Determination of Symmetric and Asymmetric Dimethylarginine in Human Blood Plasma with Whole Capillary Sample Injection. International Journal of Molecular Sciences, 2021, 22, 2970.	4.1	7
64	Analysis of factors influencing nitrogen balance during acute starvation in obese subject with and without type 2 diabetes. Clinical Nutrition, 2007, 26, 552-558.	5.0	6
65	Correlation between the standard Gibbs energies of an anion transfer from water to highly hydrophobic ionic liquids and to 1,2-dichloroethane. Journal of Electroanalytical Chemistry, 2014, 714-715, 109-115.	3.8	6
66	Contactless conductometric determination of methanol and ethanol in samples containing water after their electrophoretic desalination. Electrophoresis, 2015, 36, 1976-1981.	2.4	6
67	Effect of Food with Low Enrichment of N-3 Fatty Acids in a Two-Month Diet on the Fatty Acid Content in the Plasma and Erythrocytes and on Cardiovascular Risk Markers in Healthy Young Men. Nutrients, 2020, 12, 2207.	4.1	5
68	Sensitive CEâ€MS method for monitoring of riociguat and desmethylriociguat levels in human serum. Electrophoresis, 2020, 41, 1564-1567.	2.4	5
69	Transfer of heparin polyion across a polarized water/ionic liquid membrane interface. Electrochemistry Communications, 2012, 24, 25-27.	4.7	4
70	The use of a multichannel capillary for electrophoretic separations of mixtures of clinically important substances with contactless conductivity and UV photometric detection. Electrophoresis, 2013, 34, 2058-2064.	2.4	4
71	Metformin Does Not Inhibit Exercise-Induced Lipolysis in Adipose Tissue in Young Healthy Lean Men. Frontiers in Physiology, 2018, 9, 604.	2.8	4
72	Rapid and Sensitive Determination of Branched-Chain Amino Acids in Human Plasma by Capillary Electrophoresis with Contactless Conductivity Detection for Physiological Studies. Methods in Molecular Biology, 2019, 1972, 15-24.	0.9	4

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73	Rapid methods for the separation of natural mixtures of beauverolides, cholesterol acyltransferase inhibitors, isolated from the fungus Isaria fumosorosea. Journal of Separation Science, 2020, 43, 962-969.	2.5	4
74	Characterization of various geometric arrangements of â€œairâ€assistedâ€•flow gating interfaces for capillary electrophoresis. Electrophoresis, 2021, 42, 749-755.	2.4	4
75	Evaluation of the Burdening on the Czech Population by Brominated Flame Retardants. International Journal of Environmental Research and Public Health, 2019, 16, 4105.	2.6	3
76	The Control of Glucose and Lactate Levels in Nutrient Medium After Cell Incubation and in Microdialysates of Human Adipose Tissue by Capillary Electrophoresis with Contactless Conductivity Detection. Methods in Molecular Biology, 2019, 1972, 95-108.	0.9	2
77	New Design of the Electrophoretic Part of CLARITY Technology for Confocal Light Microscopy of Rat and Human Brains. Brain Sciences, 2019, 9, 218.	2.3	1
78	The use of coupled gas chromatography columns for the determination of individual isomers of trans fatty acids in the adipose tissue of vegans. Monatshefte FÃ¼r Chemie, 2019, 150, 1417-1424.	1.8	0