Wendell Karlos Tomazelli Coltro

List of Publications by Year
in descending order

127 papers	4,424 citations	81900 39 h-index	123424 61 g-index
133 all docs	133 docs citations	133 times ranked	3808 citing authors

#	Article	IF	Citations
1	A handheld stamping process to fabricate microfluidic paper-based analytical devices with chemically modified surface for clinical assays. RSC Advances, 2014, 4, 37637-37644.	3.6	198
2	Portable analytical platforms for forensic chemistry: A review. Analytica Chimica Acta, 2018, 1034, 1-21.	5.4	196
3	Highly sensitive colorimetric detection of glucose and uric acid in biological fluids using chitosan-modified paper microfluidic devices. Analyst, The, 2016, 141, 4749-4756.	3.5	153
4	Rational selection of substrates to improve color intensity and uniformity on microfluidic paper-based analytical devices. Analyst, The, 2014, 139, 2127-2132.	3.5	148
5	Modification of microfluidic paper-based devices with silica nanoparticles. Analyst, The, 2014, 139, 5560-5567.	3.5	140
6	Capacitively coupled contactless conductivity detection on microfluidic systemsâ€”ten years of development. Analytical Methods, 2012, 4, 25-33.	2.7	137
7	Toner and paperâ€based fabrication techniques for microfluidic applications. Electrophoresis, 2010, 31, 2487-2498.	2.4	136
8	Colorimetric determination of nitrite in clinical, food and environmental samples using microfluidic devices stamped in paper platforms. Analytical Methods, 2015, 7, 7311-7317.	2.7	132
9	Recent advances in lowâ€cost microfluidic platforms for diagnostic applications. Electrophoresis, 2014, 35, 2309-2324.	2.4	124
10	Salivary diagnostics on paper microfluidic devices and their use as wearable sensors for glucose monitoring. Analytical and Bioanalytical Chemistry, 2019, 411, 4919-4928.	3.7	121
11	Wearable electrochemical sensors for forensic and clinical applications. TrAC - Trends in Analytical Chemistry, 2019, 119, 115622.	11.4	104
12	Enhanced Analytical Performance of Paper Microfluidic Devices by Using Fe₃O₄ Nanoparticles, MWCNT, and Graphene Oxide. ACS Applied Materials & Interfaces, 2016, 8, 11-15.	8.0	87
13	3D printing of microfluidic devices with embedded sensing electrodes for generating and measuring the size of microdroplets based on contactless conductivity detection. Sensors and Actuators B: Chemical, 2017, 251, 427-432.	7.8	77
14	Paper-Based Colorimetric Biosensor for Tear Glucose Measurements. Micromachines, 2017, 8, 104.	2.9	74
15	Characteristic Levels of Some Heavy Metals from Brazilian Canned Sardines (Sardinella brasiliensis). Journal of Food Composition and Analysis, 2001, 14, 611-617.	3.9	67
16	Simple and Sensitive Paper-Based Device Coupling Electrochemical Sample Pretreatment and Colorimetric Detection. Analytical Chemistry, 2016, 88, 5145-5151.	6.5	66
17	Dual contactless conductivity and amperometric detection on hybrid PDMS/glass electrophoresis microchips. Analyst, The, 2010, 135, 96-103.	3.5	63
18	Hand drawing of pencil electrodes on paper platforms for contactless conductivity detection of inorganic cations in human tear samples using electrophoresis chips. Electrophoresis, 2015, 36, 1837-1844.	2.4	59

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19	Electrophoresis microchip fabricated by a direct-printing process with end-channel amperometric detection. Electrophoresis, 2004, 25, 3832-3839.	2.4	58
20	A new insert sample approach to paper spray mass spectrometry: a paper substrate with paraffin barriers. Analyst, The, 2016, 141, 1707-1713.	3.5	57
21	Paper-based enzymatic reactors for batch injection analysis of glucose on 3D printed cell coupled with amperometric detection. Sensors and Actuators B: Chemical, 2016, 226, 196-203.	7.8	57
22	Comparison of the analytical performance of electrophoresis microchannels fabricated in PDMS, glass, and polyesterâ€toner. Electrophoresis, 2008, 29, 4928-4937.	2.4	54
23	Detection of Analgesics and Sedation Drugs in Whiskey Using Electrochemical Paperâ€based Analytical Devices. Electroanalysis, 2018, 30, 2250-2257.	2.9	54
24	A toner-mediated lithographic technology for rapid prototyping of glass microchannels. Lab on A Chip, 2007, 7, 931.	6.0	52
25	Versatile fabrication of paper-based microfluidic devices with high chemical resistance using scholar glue and magnetic masks. Analytica Chimica Acta, 2017, 974, 63-68.	5.4	51
26	Capillary-Driven Toner-Based Microfluidic Devices for Clinical Diagnostics with Colorimetric Detection. Analytical Chemistry, 2012, 84, 9002-9007.	6.5	49
27	Instrument-free fabrication of microfluidic paper-based analytical devices through 3D pen drawing. Sensors and Actuators B: Chemical, 2020, 312, 128018.	7.8	49
28	Monitoring of nitrite, nitrate, chloride and sulfate in environmental samples using electrophoresis microchips coupled with contactless conductivity detection. Talanta, 2016, 147, 335-341.	5.5	47
29	Amperometric detection of salivary Î±-amylase on screen-printed carbon electrodes as a simple and inexpensive alternative for point-of-care testing. Sensors and Actuators B: Chemical, 2018, 258, 342-348.	7.8	47
30	A fully disposable paper-based electrophoresis microchip with integrated pencil-drawn electrodes for contactless conductivity detection. Analytical Methods, 2016, 8, 6682-6686.	2.7	46
31	Uncovering the Formation of Color Gradients for Glucose Colorimetric Assays on Microfluidic Paper-Based Analytical Devices by Mass Spectrometry Imaging. Analytical Chemistry, 2018, 90, 11949-11954.	6.5	46
32	Wearable and Biodegradable Sensors for Clinical and Environmental Applications. ACS Applied Electronic Materials, 2021, 3, 68-100.	4.3	46
33	Self-regenerating and hybrid irreversible/reversible PDMS microfluidic devices. Scientific Reports, 2016, 6, 26032.	3.3	44
34	Triboelectric effect as a new strategy for sealing and controlling the flow in paper-based devices. Lab on A Chip, 2015, 15, 1651-1655.	6.0	43
35	Different approaches for fabrication of low-cost electrochemical sensors. Current Opinion in Electrochemistry, 2022, 32, 100893.	4.8	43
36	Fabrication and integration of planar electrodes for contactless conductivity detection on polyesterâ€toner electrophoresis microchips. Electrophoresis, 2008, 29, 2260-2265.	2.4	42

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37	Polyurethane from biosource as a new material for fabrication of microfluidic devices by rapid prototyping. Journal of Chromatography A, 2007, 1173, 151-158.	3.7	41
38	3D printing of microfluidic devices for paper-assisted direct spray ionization mass spectrometry. Analytical Methods, 2016, 8, 496-503.	2.7	41
39	Determination of Ascorbic Acid in Commercial Tablets Using Pencil Drawn Electrochemical Paper-based Analytical Devices. Analytical Sciences, 2018, 34, 91-95.	1.6	41
40	Fast and versatile fabrication of PMMA microchip electrophoretic devices by laser engraving. Electrophoresis, 2014, 35, 2325-2332.	2.4	39
41	A paper-based colorimetric spot test for the identification of adulterated whiskeys. Chemical Communications, 2017, 53, 7957-7960.	4.1	38
42	Label-free counting of Escherichia coli cells in nanoliter droplets using 3D printed microfluidic devices with integrated contactless conductivity detection. Analytica Chimica Acta, 2019, 1071, 36-43.	5.4	38
43	Paper-based microfluidic devices on the crime scene: A simple tool for rapid estimation of post-mortem interval using vitreous humour. Analytica Chimica Acta, 2017, 974, 69-74.	5.4	36
44	Environmentally Friendly Manufacturing of Flexible Graphite Electrodes for a Wearable Device Monitoring Zinc in Sweat. ACS Applied Materials & Interfaces, 2019, 11, 39484-39492.	8.0	36
45	Redox titration on foldable paper-based analytical devices for the visual determination of alcohol content in whiskey samples. Talanta, 2019, 194, 363-369.	5.5	36
46	Microfluidic paper-based device integrated with smartphone for point-of-use colorimetric monitoring of water quality index. Measurement: Journal of the International Measurement Confederation, 2020, 164, 108085.	5.0	36
47	A rapid and reliable bonding process for microchip electrophoresis fabricated in glass substrates. Electrophoresis, 2010, 31, 2526-2533.	2.4	35
48	Electrokinetic control of fluid in plastified laser-printed poly(ethylene terephthalate)-toner microchips. Analytical and Bioanalytical Chemistry, 2005, 382, 192-197.	3.7	33
49	Monitoring Acidâ€“Base Titrations on Wax Printed Paper Microzones Using a Smartphone. Micromachines, 2017, 8, 139.	2.9	33
50	Disposable polyesterâ€“toner electrophoresis microchips for DNA analysis. Analyst, The, 2012, 137, 2692.	3.5	32
51	Plug-and-play assembly of paper-based colorimetric and electrochemical devices for multiplexed detection of metals. Analyst, The, 2021, 146, 3463-3473.	3.5	31
52	Rapid prototyping of polymeric electrophoresis microchips with integrated copper electrodes for contactless conductivity detection. Analytical Methods, 2011, 3, 168-172.	2.7	30
53	Paper spray ionization mass spectrometry allied to chemometric tools for quantification of whisky adulteration with additions of sugarcane spirit. Analytical Methods, 2018, 10, 1952-1960.	2.7	28
54	Sandpaper-based electrochemical devices assembled on a reusable 3D-printed holder to detect date rape drug in beverages. Talanta, 2021, 232, 122408.	5.5	28

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55	Authenticity screening of seized whiskey samples using electrophoresis microchips coupled with contactless conductivity detection. Electrophoresis, 2016, 37, 2891-2895.	2.4	26
56	Microfluidic devices with integrated dual-capacitively coupled contactless conductivity detection to monitor binding events in real time. Sensors and Actuators B: Chemical, 2014, 192, 239-246.	7.8	25
57	Contactless conductivity biosensor in microchip containing folic acid as bioreceptor. Lab on A Chip, 2012, 12, 1963.	6.0	24
58	Electrodeposition of reduced graphene oxide on a Pt electrode and its use as amperometric sensor in microchip electrophoresis. Electrophoresis, 2015, 36, 1886-1893.	2.4	24
59	Fully 3D printing of carbon black-thermoplastic hybrid materials and fast activation for development of highly stable electrochemical sensors. Sensors and Actuators B: Chemical, 2021, 349, 130721.	7.8	24
60	Instrumentation design for hydrodynamic sample injection in microchip electrophoresis: A review. Electrophoresis, 2012, 33, 2614-2623.	2.4	23
61	Dengue diagnosis on laser printed microzones using smartphone-based detection and multivariate image analysis. Analytical Methods, 2016, 8, 6506-6511.	2.7	23
62	Polyesterâ€toner electrophoresis microchips with improved analytical performance and extended lifetime. Electrophoresis, 2012, 33, 2660-2667.	2.4	22
63	Laser-engraved ammonia sensor integrating a natural deep eutectic solvent. Microchemical Journal, 2020, 157, 105067.	4.5	22
64	Paper-based analytical device with colorimetric detection for urease activity determination in soils and evaluation of potential inhibitors. Talanta, 2021, 230, 122301.	5.5	22
65	3D printing of compact electrochemical cell for sequential analysis of steroid hormones. Sensors and Actuators B: Chemical, 2022, 364, 131850.	7.8	22
66	Laser-printing of toner-based 96-microzone plates for immunoassays. Analyst, The, 2013, 138, 1114-1121.	3.5	21
67	Kinetic study of glucose oxidase on microfluidic toner-based analytical devices for clinical diagnostics with image-based detection. Analytical Methods, 2014, 6, 4995-5000.	2.7	21
68	Doping of a dielectric layer as a new alternative for increasing sensitivity of the contactless conductivity detection in microchips. Lab on A Chip, 2011, 11, 4148.	6.0	20
69	Recent advances in toner-based microfluidic devices for bioanalytical applications. Analytical Methods, 2018, 10, 2952-2962.	2.7	20
70	Fabrication of microwell plates and microfluidic devices in polyester films using a cutting printer. Analytica Chimica Acta, 2020, 1119, 1-10.	5.4	19
71	Separation of carbohydrates on electrophoresis microchips with controlled electrolysis. Electrophoresis, 2019, 40, 693-698.	2.4	18
72	Nonaqueous electrophoresis on microchips: A review. Electrophoresis, 2020, 41, 434-448.	2.4	18

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73	3D printed microfluidic mixer for real-time monitoring of organic reactions by direct infusion mass spectrometry. Analytica Chimica Acta, 2022, 1190, 339252.	5.4	17
74	Characterization of microchip electrophoresis devices fabricated by directâ€printing process with colored toner. Electrophoresis, 2013, 34, 2169-2176.	2.4	16
75	Separation of natural antioxidants using PDMS electrophoresis microchips coupled with amperometric detection and reverse polarity. Electrophoresis, 2014, 35, 3363-3370.	2.4	16
76	Rapid separation of postâ€blast explosive residues on glass electrophoresis microchips. Electrophoresis, 2019, 40, 462-468.	2.4	16
77	Determination of glyphosate and AMPA on polyesterâ€toner electrophoresis microchip with contactless conductivity detection. Electrophoresis, 2013, 34, 2107-2111.	2.4	15
78	High adhesion strength and hybrid irreversible/reversible full-PDMS microfluidic chips. Analytica Chimica Acta, 2017, 951, 116-123.	5.4	15
79	3D-printed electrochemical platform with multi-purpose carbon black sensing electrodes. Mikrochimica Acta, 2022, 189, .	5.0	15
80	Correlation of animal diet and fatty acid content in young goat meat by gas chromatography and chemometrics. Meat Science, 2005, 71, 358-363.	5.5	14
81	Microssistemas de anÃ¡lises quÃmicas: introduÃ§Ã£o, tecnologias de fabricaÃ§Ã£o, instrumentaÃ§Ã£o e aplicaÃ§Ãµes. Quimica Nova, 2007, 30, 1986-2000.	0.3	14
82	Metalless electrodes for capacitively coupled contactless conductivity detection on electrophoresis microchips. Electrophoresis, 2015, 36, 1935-1940.	2.4	14
83	Colorimetric analysis of the decomposition of S-nitrosothiols on paper-based microfluidic devices. Analyst, The, 2016, 141, 6314-6320.	3.5	14
84	Batch injection analysis towards auxiliary diagnosis of periodontal diseases based on indirect amperometric detection of salivary Î±-amylase on a cupric oxide electrode. Analytica Chimica Acta, 2018, 1041, 50-57.	5.4	14
85	Highâ€voltage power supplies to capillary and microchip electrophoresis. Electrophoresis, 2012, 33, 893-898.	2.4	13
86	High performance separation of quaternary amines using microchip non-aqueous electrophoresis coupled with contactless conductivity detection. Journal of Chromatography A, 2017, 1499, 190-195.	3.7	13
87	Hydrodynamic injection on electrophoresis microchips using an electronic micropipette. Talanta, 2017, 162, 19-23.	5.5	13
88	Fast determination of cocaine and some common adulterants in seized cocaine samples by capillary electrophoresis with capacitively coupled contactless conductivity detection. Analytical Methods, 2018, 10, 2875-2880.	2.7	13
89	High fidelity prototyping of PDMS electrophoresis microchips using laser-printed masters. Microsystem Technologies, 2015, 21, 1345-1352.	2.0	12
90	Screening of seized cocaine samples using electrophoresis microchips with integrated contactless conductivity detection. Electrophoresis, 2018, 39, 2188-2194.	2.4	12

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91	Simultaneous analysis of multiple adulterants in milk using microfluidic paper-based analytical devices. Analytical Methods, 2021, 13, 5383-5390.	2.7	11
92	Terminologia para as tÃ©cnicas analÃticas de eletromigraÃ§Ã£o em capilares. Quimica Nova, 2007, 30, 740-744.	0.3	10
93	Simple, rapid and, costâ€effective fabrication of PDMS electrophoresis microchips using poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overlock	2.4	10
94	Reviewâ€"A Pencil Drawing Overview: From Graphite to Electrochemical Sensors/Biosensors Applications. Journal of the Electrochemical Society, 2022, 169, 047524.	2.9	10
95	Fast and versatile fabrication of PMMA microchip electrophoretic devices by laser engraving. Electrophoresis, 2014, 35, NA-NA.	2.4	9
96	Determination of inorganic cations in biological fluids using a hybrid capillary electrophoresis device coupled with contactless conductivity detection. Journal of Separation Science, 2018, 41, 3310-3317.	2.5	9
97	Droplet length and generation rate investigation inside microfluidic devices by means of CFD simulations and experiments. Chemical Engineering Research and Design, 2020, 161, 260-270.	5.6	8
98	Lead toxicity in Lucilia cuprina and electrochemical analysis: a simple and low-cost alternative for forensic investigation. Analytical and Bioanalytical Chemistry, 2021, 413, 3201-3208.	3.7	8
99	Inexpensive and nonconventional fabrication of microfluidic devices in PMMA based on a softâ€embossing protocol. Electrophoresis, 2020, 41, 1641-1650.	2.4	7
100	Determination of the alcoholic content in whiskeys using micellar electrokinetic chromatography on microchips. Food Chemistry, 2020, 329, 127175.	8.2	7
101	Chip-based separation of organic and inorganic anions and multivariate analysis of wines according to grape varieties. Talanta, 2021, 231, 122381.	5.5	7
102	Determination of bioavailable lead in atmospheric aerosols using unmodified screen-printed carbon electrodes. Analytical Methods, 2019, 11, 4875-4881.	2.7	6
103	Integrated microfluidic device for the separation, decomposition and detection of low molecular weight S-nitrosothiols. Analyst, The, 2019, 144, 180-185.	3.5	6
104	Organic beet leaves and stalk juice attenuates HDL-C reduction induced by high-fat meal in dyslipidemic patients: A pilot randomized controlled trial. Nutrition, 2019, 65, 68-73.	2.4	6
105	Towards a versatile and economic Chagas Disease point-of-care testing system, by integrating loop-mediated isothermal amplification and contactless/label-free conductivity detection. PLoS Neglected Tropical Diseases, 2021, 15, e0009406.	3.0	6
106	Paper-based analytical devices with colorimetric detection for determining levoglucosan in atmospheric particulate matter. Atmospheric Environment, 2019, 213, 463-469.	4.1	5
107	Disposable stencil-printed carbon electrodes for electrochemical analysis of sildenafil citrate in commercial and adulterated tablets. Brazilian Journal of Analytical Chemistry, 2021, , .	0.5	5
108	Determination of naphthenic acids in produced water by using microchip electrophoresis with integrated contactless conductivity detection. Journal of Chromatography A, 2022, 1677, 463307.	3.7	5

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109	EVALUATION OF DIGITAL IMAGE CAPTURE DEVICES FOR COLORIMETRIC DETECTION ON PRINTED MICROZONES. Quimica Nova, 2014, , .	0.3	4
110	Guest Editorial Special Issue on Microfluidics Engineering for Point-of-Care Diagnostics. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 1377-1379.	4.0	4
111	Colorimetric Detection of Glucose in Biological Fluids Using Toner-Based Microzone Plates. Journal of the Brazilian Chemical Society, 2016, , .	0.6	3
112	Instrumental Platforms for Capillary and Microchip Electromigration Separation Techniques. , 2018, , 269-292.		3
113	Microfluidic Toner-Based Analytical Devices: Disposable, Lightweight, and Portable Platforms for Point-of-Care Diagnostics with Colorimetric Detection. Methods in Molecular Biology, 2015, 1256, 85-98.	0.9	3
114	Colorimetric paper-based analytical devices. , 2022, , 59-79.		3
115	Portable Analytical Platforms Associated with Chemometrics for Rapid Screening of Whisky Adulteration. Food Analytical Methods, 2022, 15, 2451-2461.	2.6	3
116	Visible LED-Based Instrumentation for Photometric Determination of Electroosmotic Flow in Microchannels. Journal of the Brazilian Chemical Society, 2011, 22, 736-740.	0.6	2
117	Role of the Carotid Bodies in the Hypertensive and Natriuretic Responses to NaCl Load in Conscious Rats. Frontiers in Physiology, 2018, 9, 1690.	2.8	2
118	Paper-Based Electrophoresis Microchip as a Powerful Tool for Bioanalytical Applications. Methods in Molecular Biology, 2019, 1906, 133-142.	0.9	2
119	Rapid and Inexpensive Colorimetric Detection of Total Serum Protein Using Microzone Plates Wax-Printed on Polyester Films. Journal of the Brazilian Chemical Society, 0, , .	0.6	2
120	Enhanced Performance of Colorimetric Biosensing on Paper Microfluidic Platforms Through Chemical Modification and Incorporation of Nanoparticles. Methods in Molecular Biology, 2017, 1571, 327-341.	0.9	1
121	Sensing Materials: Paper Substrate - Color Detection. , 2021, , .		1
122	Contactless conductivity detection on lab-on-a-chip devices: A simple, inexpensive, and powerful analytical tool for microfluidic applications. , 2020, , 155-183.		0
123	Future Challenges and Point-of-view. RSC Detection Science, 2019, , 275-280.	0.0	0
124	Introduction to Chemical Analysis Focusing on Forensic Chemical Sensing and Detection. RSC Detection Science, 2019, , 1-6.	0.0	0
125	19th ENQA & 7th CIAQA - Innovation for Sustainable Analytical Chemistry. Brazilian Journal of Analytical Chemistry, 2019, 6, .	0.5	0
126	Paper-based separation devices. , 2022, , 41-57.		0

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127	Wearable hybrid sensors. , 2022, , 255-274.		0