

# Wendell Karlos Tomazelli Coltro

## List of Publications by Year in descending order

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127  
papers

4,424  
citations

81743

39  
h-index

123241

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. <i>RSC Advances</i> , 2014, 4, 37637-37644.	1.7	198
2	Portable analytical platforms for forensic chemistry: A review. <i>Analytica Chimica Acta</i> , 2018, 1034, 1-21.	2.6	196
3	Highly sensitive colorimetric detection of glucose and uric acid in biological fluids using chitosan-modified paper microfluidic devices. <i>Analyst, The</i> , 2016, 141, 4749-4756.	1.7	153
4	Rational selection of substrates to improve color intensity and uniformity on microfluidic paper-based analytical devices. <i>Analyst, The</i> , 2014, 139, 2127-2132.	1.7	148
5	Modification of microfluidic paper-based devices with silica nanoparticles. <i>Analyst, The</i> , 2014, 139, 5560-5567.	1.7	140
6	Capacitively coupled contactless conductivity detection on microfluidic systems—ten years of development. <i>Analytical Methods</i> , 2012, 4, 25-33.	1.3	137
7	Toner and paper-based fabrication techniques for microfluidic applications. <i>Electrophoresis</i> , 2010, 31, 2487-2498.	1.3	136
8	Colorimetric determination of nitrite in clinical, food and environmental samples using microfluidic devices stamped in paper platforms. <i>Analytical Methods</i> , 2015, 7, 7311-7317.	1.3	132
9	Recent advances in low-cost microfluidic platforms for diagnostic applications. <i>Electrophoresis</i> , 2014, 35, 2309-2324.	1.3	124
10	Salivary diagnostics on paper microfluidic devices and their use as wearable sensors for glucose monitoring. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 4919-4928.	1.9	121
11	Wearable electrochemical sensors for forensic and clinical applications. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 119, 115622.	5.8	104
12	Enhanced Analytical Performance of Paper Microfluidic Devices by Using Fe <sub>3</sub> O <sub>4</sub> Nanoparticles, MWCNT, and Graphene Oxide. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 11-15.	4.0	87
13	3D printing of microfluidic devices with embedded sensing electrodes for generating and measuring the size of microdroplets based on contactless conductivity detection. <i>Sensors and Actuators B: Chemical</i> , 2017, 251, 427-432.	4.0	77
14	Paper-Based Colorimetric Biosensor for Tear Glucose Measurements. <i>Micromachines</i> , 2017, 8, 104.	1.4	74
15	Characteristic Levels of Some Heavy Metals from Brazilian Canned Sardines ( <i>Sardinella brasiliensis</i> ). <i>Journal of Food Composition and Analysis</i> , 2001, 14, 611-617.	1.9	67
16	Simple and Sensitive Paper-Based Device Coupling Electrochemical Sample Pretreatment and Colorimetric Detection. <i>Analytical Chemistry</i> , 2016, 88, 5145-5151.	3.2	66
17	Dual contactless conductivity and amperometric detection on hybrid PDMS/glass electrophoresis microchips. <i>Analyst, The</i> , 2010, 135, 96-103.	1.7	63
18	Hand drawing of pencil electrodes on paper platforms for contactless conductivity detection of inorganic cations in human tear samples using electrophoresis chips. <i>Electrophoresis</i> , 2015, 36, 1837-1844.	1.3	59

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19	Electrophoresis microchip fabricated by a direct-printing process with end-channel amperometric detection. <i>Electrophoresis</i> , 2004, 25, 3832-3839.	1.3	58
20	A new insert sample approach to paper spray mass spectrometry: a paper substrate with paraffin barriers. <i>Analyst</i> , 2016, 141, 1707-1713.	1.7	57
21	Paper-based enzymatic reactors for batch injection analysis of glucose on 3D printed cell coupled with amperometric detection. <i>Sensors and Actuators B: Chemical</i> , 2016, 226, 196-203.	4.0	57
22	Comparison of the analytical performance of electrophoresis microchannels fabricated in PDMS, glass, and polyesterâ€toner. <i>Electrophoresis</i> , 2008, 29, 4928-4937.	1.3	54
23	Detection of Analgesics and Sedation Drugs in Whiskey Using Electrochemical Paperâ€based Analytical Devices. <i>Electroanalysis</i> , 2018, 30, 2250-2257.	1.5	54
24	A toner-mediated lithographic technology for rapid prototyping of glass microchannels. <i>Lab on A Chip</i> , 2007, 7, 931.	3.1	52
25	Versatile fabrication of paper-based microfluidic devices with high chemical resistance using scholar glue and magnetic masks. <i>Analytica Chimica Acta</i> , 2017, 974, 63-68.	2.6	51
26	Capillary-Driven Toner-Based Microfluidic Devices for Clinical Diagnostics with Colorimetric Detection. <i>Analytical Chemistry</i> , 2012, 84, 9002-9007.	3.2	49
27	Instrument-free fabrication of microfluidic paper-based analytical devices through 3D pen drawing. <i>Sensors and Actuators B: Chemical</i> , 2020, 312, 128018.	4.0	49
28	Monitoring of nitrite, nitrate, chloride and sulfate in environmental samples using electrophoresis microchips coupled with contactless conductivity detection. <i>Talanta</i> , 2016, 147, 335-341.	2.9	47
29	Amperometric detection of salivary Î±-amylase on screen-printed carbon electrodes as a simple and inexpensive alternative for point-of-care testing. <i>Sensors and Actuators B: Chemical</i> , 2018, 258, 342-348.	4.0	47
30	A fully disposable paper-based electrophoresis microchip with integrated pencil-drawn electrodes for contactless conductivity detection. <i>Analytical Methods</i> , 2016, 8, 6682-6686.	1.3	46
31	Uncovering the Formation of Color Gradients for Glucose Colorimetric Assays on Microfluidic Paper-Based Analytical Devices by Mass Spectrometry Imaging. <i>Analytical Chemistry</i> , 2018, 90, 11949-11954.	3.2	46
32	Wearable and Biodegradable Sensors for Clinical and Environmental Applications. <i>ACS Applied Electronic Materials</i> , 2021, 3, 68-100.	2.0	46
33	Self-regenerating and hybrid irreversible/reversible PDMS microfluidic devices. <i>Scientific Reports</i> , 2016, 6, 26032.	1.6	44
34	Triboelectric effect as a new strategy for sealing and controlling the flow in paper-based devices. <i>Lab on A Chip</i> , 2015, 15, 1651-1655.	3.1	43
35	Different approaches for fabrication of low-cost electrochemical sensors. <i>Current Opinion in Electrochemistry</i> , 2022, 32, 100893.	2.5	43
36	Fabrication and integration of planar electrodes for contactless conductivity detection on polyesterâ€toner electrophoresis microchips. <i>Electrophoresis</i> , 2008, 29, 2260-2265.	1.3	42

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37	Polyurethane from biosource as a new material for fabrication of microfluidic devices by rapid prototyping. <i>Journal of Chromatography A</i> , 2007, 1173, 151-158.	1.8	41
38	3D printing of microfluidic devices for paper-assisted direct spray ionization mass spectrometry. <i>Analytical Methods</i> , 2016, 8, 496-503.	1.3	41
39	Determination of Ascorbic Acid in Commercial Tablets Using Pencil Drawn Electrochemical Paper-based Analytical Devices. <i>Analytical Sciences</i> , 2018, 34, 91-95.	0.8	41
40	Fast and versatile fabrication of PMMA microchip electrophoretic devices by laser engraving. <i>Electrophoresis</i> , 2014, 35, 2325-2332.	1.3	39
41	A paper-based colorimetric spot test for the identification of adulterated whiskeys. <i>Chemical Communications</i> , 2017, 53, 7957-7960.	2.2	38
42	Label-free counting of Escherichia coli cells in nanoliter droplets using 3D printed microfluidic devices with integrated contactless conductivity detection. <i>Analytica Chimica Acta</i> , 2019, 1071, 36-43.	2.6	38
43	Paper-based microfluidic devices on the crime scene: A simple tool for rapid estimation of post-mortem interval using vitreous humour. <i>Analytica Chimica Acta</i> , 2017, 974, 69-74.	2.6	36
44	Environmentally Friendly Manufacturing of Flexible Graphite Electrodes for a Wearable Device Monitoring Zinc in Sweat. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 39484-39492.	4.0	36
45	Redox titration on foldable paper-based analytical devices for the visual determination of alcohol content in whiskey samples. <i>Talanta</i> , 2019, 194, 363-369.	2.9	36
46	Microfluidic paper-based device integrated with smartphone for point-of-use colorimetric monitoring of water quality index. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020, 164, 108085.	2.5	36
47	A rapid and reliable bonding process for microchip electrophoresis fabricated in glass substrates. <i>Electrophoresis</i> , 2010, 31, 2526-2533.	1.3	35
48	Electrokinetic control of fluid in plastified laser-printed poly(ethylene terephthalate)-toner microchips. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 382, 192-197.	1.9	33
49	Monitoring Acid-Base Titrations on Wax Printed Paper Microzones Using a Smartphone. <i>Micromachines</i> , 2017, 8, 139.	1.4	33
50	Disposable polyester- $\alpha$ -toner electrophoresis microchips for DNA analysis. <i>Analyst, The</i> , 2012, 137, 2692.	1.7	32
51	Plug-and-play assembly of paper-based colorimetric and electrochemical devices for multiplexed detection of metals. <i>Analyst, The</i> , 2021, 146, 3463-3473.	1.7	31
52	Rapid prototyping of polymeric electrophoresis microchips with integrated copper electrodes for contactless conductivity detection. <i>Analytical Methods</i> , 2011, 3, 168-172.	1.3	30
53	Paper spray ionization mass spectrometry allied to chemometric tools for quantification of whisky adulteration with additions of sugarcane spirit. <i>Analytical Methods</i> , 2018, 10, 1952-1960.	1.3	28
54	Sandpaper-based electrochemical devices assembled on a reusable 3D-printed holder to detect date rape drug in beverages. <i>Talanta</i> , 2021, 232, 122408.	2.9	28

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55	Authenticity screening of seized whiskey samples using electrophoresis microchips coupled with contactless conductivity detection. <i>Electrophoresis</i> , 2016, 37, 2891-2895.	1.3	26
56	Microfluidic devices with integrated dual-capacitively coupled contactless conductivity detection to monitor binding events in real time. <i>Sensors and Actuators B: Chemical</i> , 2014, 192, 239-246.	4.0	25
57	Contactless conductivity biosensor in microchip containing folic acid as bioreceptor. <i>Lab on A Chip</i> , 2012, 12, 1963.	3.1	24
58	Electrodeposition of reduced graphene oxide on a Pt electrode and its use as amperometric sensor in microchip electrophoresis. <i>Electrophoresis</i> , 2015, 36, 1886-1893.	1.3	24
59	Fully 3D printing of carbon black-thermoplastic hybrid materials and fast activation for development of highly stable electrochemical sensors. <i>Sensors and Actuators B: Chemical</i> , 2021, 349, 130721.	4.0	24
60	Instrumentation design for hydrodynamic sample injection in microchip electrophoresis: A review. <i>Electrophoresis</i> , 2012, 33, 2614-2623.	1.3	23
61	Dengue diagnosis on laser printed microzones using smartphone-based detection and multivariate image analysis. <i>Analytical Methods</i> , 2016, 8, 6506-6511.	1.3	23
62	Polyester- $\mu$ toner electrophoresis microchips with improved analytical performance and extended lifetime. <i>Electrophoresis</i> , 2012, 33, 2660-2667.	1.3	22
63	Laser-engraved ammonia sensor integrating a natural deep eutectic solvent. <i>Microchemical Journal</i> , 2020, 157, 105067.	2.3	22
64	Paper-based analytical device with colorimetric detection for urease activity determination in soils and evaluation of potential inhibitors. <i>Talanta</i> , 2021, 230, 122301.	2.9	22
65	3D printing of compact electrochemical cell for sequential analysis of steroid hormones. <i>Sensors and Actuators B: Chemical</i> , 2022, 364, 131850.	4.0	22
66	Laser-printing of toner-based 96-microzone plates for immunoassays. <i>Analyst</i> , The, 2013, 138, 1114-1121.	1.7	21
67	Kinetic study of glucose oxidase on microfluidic toner-based analytical devices for clinical diagnostics with image-based detection. <i>Analytical Methods</i> , 2014, 6, 4995-5000.	1.3	21
68	Doping of a dielectric layer as a new alternative for increasing sensitivity of the contactless conductivity detection in microchips. <i>Lab on A Chip</i> , 2011, 11, 4148.	3.1	20
69	Recent advances in toner-based microfluidic devices for bioanalytical applications. <i>Analytical Methods</i> , 2018, 10, 2952-2962.	1.3	20
70	Fabrication of microwell plates and microfluidic devices in polyester films using a cutting printer. <i>Analytica Chimica Acta</i> , 2020, 1119, 1-10.	2.6	19
71	Separation of carbohydrates on electrophoresis microchips with controlled electrolysis. <i>Electrophoresis</i> , 2019, 40, 693-698.	1.3	18
72	Nonaqueous electrophoresis on microchips: A review. <i>Electrophoresis</i> , 2020, 41, 434-448.	1.3	18

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73	3D printed microfluidic mixer for real-time monitoring of organic reactions by direct infusion mass spectrometry. <i>Analytica Chimica Acta</i> , 2022, 1190, 339252.	2.6	17
74	Characterization of microchip electrophoresis devices fabricated by direct printing process with colored toner. <i>Electrophoresis</i> , 2013, 34, 2169-2176.	1.3	16
75	Separation of natural antioxidants using PDMS electrophoresis microchips coupled with amperometric detection and reverse polarity. <i>Electrophoresis</i> , 2014, 35, 3363-3370.	1.3	16
76	Rapid separation of postblast explosive residues on glass electrophoresis microchips. <i>Electrophoresis</i> , 2019, 40, 462-468.	1.3	16
77	Determination of glyphosate and AMPA on polyester toner electrophoresis microchip with contactless conductivity detection. <i>Electrophoresis</i> , 2013, 34, 2107-2111.	1.3	15
78	High adhesion strength and hybrid irreversible/reversible full-PDMS microfluidic chips. <i>Analytica Chimica Acta</i> , 2017, 951, 116-123.	2.6	15
79	3D-printed electrochemical platform with multi-purpose carbon black sensing electrodes. <i>Mikrochimica Acta</i> , 2022, 189, .	2.5	15
80	Correlation of animal diet and fatty acid content in young goat meat by gas chromatography and chemometrics. <i>Meat Science</i> , 2005, 71, 358-363.	2.7	14
81	Microssistemas de análises químicas: introdução, tecnologias de fabricação, instrumentação e aplicações. <i>Química Nova</i> , 2007, 30, 1986-2000.	0.3	14
82	Metalless electrodes for capacitively coupled contactless conductivity detection on electrophoresis microchips. <i>Electrophoresis</i> , 2015, 36, 1935-1940.	1.3	14
83	Colorimetric analysis of the decomposition of S-nitrosothiols on paper-based microfluidic devices. <i>Analyst</i> , 2016, 141, 6314-6320.	1.7	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. <i>Analytica Chimica Acta</i> , 2018, 1041, 50-57.	2.6	14
85	High voltage power supplies to capillary and microchip electrophoresis. <i>Electrophoresis</i> , 2012, 33, 893-898.	1.3	13
86	High performance separation of quaternary amines using microchip non-aqueous electrophoresis coupled with contactless conductivity detection. <i>Journal of Chromatography A</i> , 2017, 1499, 190-195.	1.8	13
87	Hydrodynamic injection on electrophoresis microchips using an electronic micropipette. <i>Talanta</i> , 2017, 162, 19-23.	2.9	13
88	Fast determination of cocaine and some common adulterants in seized cocaine samples by capillary electrophoresis with capacitively coupled contactless conductivity detection. <i>Analytical Methods</i> , 2018, 10, 2875-2880.	1.3	13
89	High fidelity prototyping of PDMS electrophoresis microchips using laser-printed masters. <i>Microsystem Technologies</i> , 2015, 21, 1345-1352.	1.2	12
90	Screening of seized cocaine samples using electrophoresis microchips with integrated contactless conductivity detection. <i>Electrophoresis</i> , 2018, 39, 2188-2194.	1.3	12

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91	Simultaneous analysis of multiple adulterants in milk using microfluidic paper-based analytical devices. <i>Analytical Methods</i> , 2021, 13, 5383-5390.	1.3	11
92	Terminologia para as técnicas analíticas de eletromigração em capilares. <i>Quimica Nova</i> , 2007, 30, 740-744.	0.3	10
93	Simple, rapid and cost-effective fabrication of PDMS electrophoresis microchips using poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overlo	1.3	10
94	Review "A Pencil Drawing Overview: From Graphite to Electrochemical Sensors/Biosensors Applications. <i>Journal of the Electrochemical Society</i> , 2022, 169, 047524.	1.3	10
95	Fast and versatile fabrication of PMMA microchip electrophoretic devices by laser engraving. <i>Electrophoresis</i> , 2014, 35, NA-NA.	1.3	9
96	Determination of inorganic cations in biological fluids using a hybrid capillary electrophoresis device coupled with contactless conductivity detection. <i>Journal of Separation Science</i> , 2018, 41, 3310-3317.	1.3	9
97	Droplet length and generation rate investigation inside microfluidic devices by means of CFD simulations and experiments. <i>Chemical Engineering Research and Design</i> , 2020, 161, 260-270.	2.7	8
98	Lead toxicity in <i>Lucilia cuprina</i> and electrochemical analysis: a simple and low-cost alternative for forensic investigation. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 3201-3208.	1.9	8
99	Inexpensive and nonconventional fabrication of microfluidic devices in PMMA based on a soft-embossing protocol. <i>Electrophoresis</i> , 2020, 41, 1641-1650.	1.3	7
100	Determination of the alcoholic content in whiskeys using micellar electrokinetic chromatography on microchips. <i>Food Chemistry</i> , 2020, 329, 127175.	4.2	7
101	Chip-based separation of organic and inorganic anions and multivariate analysis of wines according to grape varieties. <i>Talanta</i> , 2021, 231, 122381.	2.9	7
102	Determination of bioavailable lead in atmospheric aerosols using unmodified screen-printed carbon electrodes. <i>Analytical Methods</i> , 2019, 11, 4875-4881.	1.3	6
103	Integrated microfluidic device for the separation, decomposition and detection of low molecular weight S-nitrosothiols. <i>Analyst</i> , The, 2019, 144, 180-185.	1.7	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. <i>Nutrition</i> , 2019, 65, 68-73.	1.1	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. <i>PLoS Neglected Tropical Diseases</i> , 2021, 15, e0009406.	1.3	6
106	Paper-based analytical devices with colorimetric detection for determining levoglucosan in atmospheric particulate matter. <i>Atmospheric Environment</i> , 2019, 213, 463-469.	1.9	5
107	Disposable stencil-printed carbon electrodes for electrochemical analysis of sildenafil citrate in commercial and adulterated tablets. <i>Brazilian Journal of Analytical Chemistry</i> , 2021, , .	0.3	5
108	Determination of naphthenic acids in produced water by using microchip electrophoresis with integrated contactless conductivity detection. <i>Journal of Chromatography A</i> , 2022, 1677, 463307.	1.8	5

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109	EVALUATION OF DIGITAL IMAGE CAPTURE DEVICES FOR COLORIMETRIC DETECTION ON PRINTED MICROZONES. <i>Quimica Nova</i> , 2014, , .	0.3	4
110	Guest Editorial Special Issue on Microfluidics Engineering for Point-of-Care Diagnostics. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2017, 11, 1377-1379.	2.7	4
111	Colorimetric Detection of Glucose in Biological Fluids Using Toner-Based Microzone Plates. <i>Journal of the Brazilian Chemical Society</i> , 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. <i>Methods in Molecular Biology</i> , 2015, 1256, 85-98.	0.4	3
114	Colorimetric paper-based analytical devices. , 2022, , 59-79.		3
115	Portable Analytical Platforms Associated with Chemometrics for Rapid Screening of Whisky Adulteration. <i>Food Analytical Methods</i> , 2022, 15, 2451-2461.	1.3	3
116	Visible LED-Based Instrumentation for Photometric Determination of Electroosmotic Flow in Microchannels. <i>Journal of the Brazilian Chemical Society</i> , 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. <i>Frontiers in Physiology</i> , 2018, 9, 1690.	1.3	2
118	Paper-Based Electrophoresis Microchip as a Powerful Tool for Bioanalytical Applications. <i>Methods in Molecular Biology</i> , 2019, 1906, 133-142.	0.4	2
119	Rapid and Inexpensive Colorimetric Detection of Total Serum Protein Using Microzone Plates Wax-Printed on Polyester Films. <i>Journal of the Brazilian Chemical Society</i> , 0, , .	0.6	2
120	Enhanced Performance of Colorimetric Biosensing on Paper Microfluidic Platforms Through Chemical Modification and Incorporation of Nanoparticles. <i>Methods in Molecular Biology</i> , 2017, 1571, 327-341.	0.4	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. <i>RSC Detection Science</i> , 2019, , 275-280.	0.0	0
124	Introduction to Chemical Analysis Focusing on Forensic Chemical Sensing and Detection. <i>RSC Detection Science</i> , 2019, , 1-6.	0.0	0
125	19th ENQA & 7th CIAQA - Innovation for Sustainable Analytical Chemistry. <i>Brazilian Journal of Analytical Chemistry</i> , 2019, 6, .	0.3	0
126	Paper-based separation devices. , 2022, , 41-57.		0



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