

# Wendell Karlos Tomazelli Coltro

## List of Publications by Year in descending order

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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	Paper-based separation devices. , 2022, , 41-57.		0
2	Colorimetric paper-based analytical devices. , 2022, , 59-79.		3
3	3D printed microfluidic mixer for real-time monitoring of organic reactions by direct infusion mass spectrometry. <i>Analytica Chimica Acta</i> , 2022, 1190, 339252.	5.4	17
4	Different approaches for fabrication of low-cost electrochemical sensors. <i>Current Opinion in Electrochemistry</i> , 2022, 32, 100893.	4.8	43
5	Wearable hybrid sensors. , 2022, , 255-274.		0
6	3D printing of compact electrochemical cell for sequential analysis of steroid hormones. <i>Sensors and Actuators B: Chemical</i> , 2022, 364, 131850.	7.8	22
7	Review "A Pencil Drawing Overview: From Graphite to Electrochemical Sensors/Biosensors Applications. <i>Journal of the Electrochemical Society</i> , 2022, 169, 047524.	2.9	10
8	Portable Analytical Platforms Associated with Chemometrics for Rapid Screening of Whisky Adulteration. <i>Food Analytical Methods</i> , 2022, 15, 2451-2461.	2.6	3
9	3D-printed electrochemical platform with multi-purpose carbon black sensing electrodes. <i>Mikrochimica Acta</i> , 2022, 189, .	5.0	15
10	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.	3.7	5
11	Wearable and Biodegradable Sensors for Clinical and Environmental Applications. <i>ACS Applied Electronic Materials</i> , 2021, 3, 68-100.	4.3	46
12	Sensing Materials: Paper Substrate - Color Detection. , 2021, , .		1
13	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.	3.7	8
14	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.	3.0	6
15	Disposable stencil-printed carbon electrodes for electrochemical analysis of sildenafil citrate in commercial and adulterated tablets. <i>Brazilian Journal of Analytical Chemistry</i> , 2021, , .	0.5	5
16	Paper-based analytical device with colorimetric detection for urease activity determination in soils and evaluation of potential inhibitors. <i>Talanta</i> , 2021, 230, 122301.	5.5	22
17	Chip-based separation of organic and inorganic anions and multivariate analysis of wines according to grape varieties. <i>Talanta</i> , 2021, 231, 122381.	5.5	7
18	Sandpaper-based electrochemical devices assembled on a reusable 3D-printed holder to detect date rape drug in beverages. <i>Talanta</i> , 2021, 232, 122408.	5.5	28

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19	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.	7.8	24
20	Plug-and-play assembly of paper-based colorimetric and electrochemical devices for multiplexed detection of metals. <i>Analyst</i> , 2021, 146, 3463-3473.	3.5	31
21	Simultaneous analysis of multiple adulterants in milk using microfluidic paper-based analytical devices. <i>Analytical Methods</i> , 2021, 13, 5383-5390.	2.7	11
22	Nonaqueous electrophoresis on microchips: A review. <i>Electrophoresis</i> , 2020, 41, 434-448.	2.4	18
23	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.	5.6	8
24	Inexpensive and nonconventional fabrication of microfluidic devices in PMMA based on a soft-embossing protocol. <i>Electrophoresis</i> , 2020, 41, 1641-1650.	2.4	7
25	Contactless conductivity detection on lab-on-a-chip devices: A simple, inexpensive, and powerful analytical tool for microfluidic applications. , 2020, , 155-183.		0
26	Laser-engraved ammonia sensor integrating a natural deep eutectic solvent. <i>Microchemical Journal</i> , 2020, 157, 105067.	4.5	22
27	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.	5.0	36
28	Determination of the alcoholic content in whiskeys using micellar electrokinetic chromatography on microchips. <i>Food Chemistry</i> , 2020, 329, 127175.	8.2	7
29	Instrument-free fabrication of microfluidic paper-based analytical devices through 3D pen drawing. <i>Sensors and Actuators B: Chemical</i> , 2020, 312, 128018.	7.8	49
30	Fabrication of microwell plates and microfluidic devices in polyester films using a cutting printer. <i>Analytica Chimica Acta</i> , 2020, 1119, 1-10.	5.4	19
31	Wearable electrochemical sensors for forensic and clinical applications. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 119, 115622.	11.4	104
32	Paper-based analytical devices with colorimetric detection for determining levoglucosan in atmospheric particulate matter. <i>Atmospheric Environment</i> , 2019, 213, 463-469.	4.1	5
33	Determination of bioavailable lead in atmospheric aerosols using unmodified screen-printed carbon electrodes. <i>Analytical Methods</i> , 2019, 11, 4875-4881.	2.7	6
34	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.	8.0	36
35	Integrated microfluidic device for the separation, decomposition and detection of low molecular weight S-nitrosothiols. <i>Analyst</i> , 2019, 144, 180-185.	3.5	6
36	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.	5.4	38

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37	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.	2.4	6
38	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.	3.7	121
39	Separation of carbohydrates on electrophoresis microchips with controlled electrolysis. <i>Electrophoresis</i> , 2019, 40, 693-698.	2.4	18
40	Paper-Based Electrophoresis Microchip as a Powerful Tool for Bioanalytical Applications. <i>Methods in Molecular Biology</i> , 2019, 1906, 133-142.	0.9	2
41	Rapid separation of post-blast explosive residues on glass electrophoresis microchips. <i>Electrophoresis</i> , 2019, 40, 462-468.	2.4	16
42	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.	5.5	36
43	Future Challenges and Point-of-view. <i>RSC Detection Science</i> , 2019, , 275-280.	0.0	0
44	Introduction to Chemical Analysis Focusing on Forensic Chemical Sensing and Detection. <i>RSC Detection Science</i> , 2019, , 1-6.	0.0	0
45	19th ENQA & 7th CIAQA - Innovation for Sustainable Analytical Chemistry. <i>Brazilian Journal of Analytical Chemistry</i> , 2019, 6, .	0.5	0
46	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.	2.7	28
47	Determination of Ascorbic Acid in Commercial Tablets Using Pencil Drawn Electrochemical Paper-based Analytical Devices. <i>Analytical Sciences</i> , 2018, 34, 91-95.	1.6	41
48	Amperometric detection of salivary $\alpha$ -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.	7.8	47
49	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.	2.8	2
50	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.	6.5	46
51	Batch injection analysis towards auxiliary diagnosis of periodontal diseases based on indirect amperometric detection of salivary $\alpha$ -amylase on a cupric oxide electrode. <i>Analytica Chimica Acta</i> , 2018, 1041, 50-57.	5.4	14
52	Detection of Analgesics and Sedation Drugs in Whiskey Using Electrochemical Paper-based Analytical Devices. <i>Electroanalysis</i> , 2018, 30, 2250-2257.	2.9	54
53	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.	2.5	9
54	Screening of seized cocaine samples using electrophoresis microchips with integrated contactless conductivity detection. <i>Electrophoresis</i> , 2018, 39, 2188-2194.	2.4	12

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55	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.	2.7	13
56	Recent advances in toner-based microfluidic devices for bioanalytical applications. <i>Analytical Methods</i> , 2018, 10, 2952-2962.	2.7	20
57	Portable analytical platforms for forensic chemistry: A review. <i>Analytica Chimica Acta</i> , 2018, 1034, 1-21.	5.4	196
58	Instrumental Platforms for Capillary and Microchip Electromigration Separation Techniques. , 2018, , 269-292.		3
59	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.	7.8	77
60	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.	5.4	36
61	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.	3.7	13
62	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.	5.4	51
63	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.	0.9	1
64	A paper-based colorimetric spot test for the identification of adulterated whiskeys. <i>Chemical Communications</i> , 2017, 53, 7957-7960.	4.1	38
65	Simple, rapid and, cost-effective fabrication of PDMS electrophoresis microchips using poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overlo	2.4	10
66	High adhesion strength and hybrid irreversible/reversible full-PDMS microfluidic chips. <i>Analytica Chimica Acta</i> , 2017, 951, 116-123.	5.4	15
67	Hydrodynamic injection on electrophoresis microchips using an electronic micropipette. <i>Talanta</i> , 2017, 162, 19-23.	5.5	13
68	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.	4.0	4
69	Paper-Based Colorimetric Biosensor for Tear Glucose Measurements. <i>Micromachines</i> , 2017, 8, 104.	2.9	74
70	Monitoring Acid-Base Titrations on Wax Printed Paper Microzones Using a Smartphone. <i>Micromachines</i> , 2017, 8, 139.	2.9	33
71	Colorimetric Detection of Glucose in Biological Fluids Using Toner-Based Microzone Plates. <i>Journal of the Brazilian Chemical Society</i> , 2016, , .	0.6	3
72	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.	3.5	153

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73	Simple and Sensitive Paper-Based Device Coupling Electrochemical Sample Pretreatment and Colorimetric Detection. <i>Analytical Chemistry</i> , 2016, 88, 5145-5151.	6.5	66
74	Colorimetric analysis of the decomposition of S-nitrosothiols on paper-based microfluidic devices. <i>Analyst</i> , The, 2016, 141, 6314-6320.	3.5	14
75	Authenticity screening of seized whiskey samples using electrophoresis microchips coupled with contactless conductivity detection. <i>Electrophoresis</i> , 2016, 37, 2891-2895.	2.4	26
76	Dengue diagnosis on laser printed microzones using smartphone-based detection and multivariate image analysis. <i>Analytical Methods</i> , 2016, 8, 6506-6511.	2.7	23
77	A fully disposable paper-based electrophoresis microchip with integrated pencil-drawn electrodes for contactless conductivity detection. <i>Analytical Methods</i> , 2016, 8, 6682-6686.	2.7	46
78	Self-regenerating and hybrid irreversible/reversible PDMS microfluidic devices. <i>Scientific Reports</i> , 2016, 6, 26032.	3.3	44
79	A new insert sample approach to paper spray mass spectrometry: a paper substrate with paraffin barriers. <i>Analyst</i> , The, 2016, 141, 1707-1713.	3.5	57
80	3D printing of microfluidic devices for paper-assisted direct spray ionization mass spectrometry. <i>Analytical Methods</i> , 2016, 8, 496-503.	2.7	41
81	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.	7.8	57
82	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.	8.0	87
83	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.	5.5	47
84	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.	2.4	24
85	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.	6.0	43
86	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.	2.4	59
87	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.	2.7	132
88	Metalless electrodes for capacitively coupled contactless conductivity detection on electrophoresis microchips. <i>Electrophoresis</i> , 2015, 36, 1935-1940.	2.4	14
89	High fidelity prototyping of PDMS electrophoresis microchips using laser-printed masters. <i>Microsystem Technologies</i> , 2015, 21, 1345-1352.	2.0	12
90	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.	0.9	3

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91	Separation of natural antioxidants using PDMS electrophoresis microchips coupled with amperometric detection and reverse polarity. <i>Electrophoresis</i> , 2014, 35, 3363-3370.	2.4	16
92	Fast and versatile fabrication of PMMA microchip electrophoretic devices by laser engraving. <i>Electrophoresis</i> , 2014, 35, NA-NA.	2.4	9
93	EVALUATION OF DIGITAL IMAGE CAPTURE DEVICES FOR COLORIMETRIC DETECTION ON PRINTED MICROZONES. <i>Quimica Nova</i> , 2014, , .	0.3	4
94	Fast and versatile fabrication of PMMA microchip electrophoretic devices by laser engraving. <i>Electrophoresis</i> , 2014, 35, 2325-2332.	2.4	39
95	Recent advances in low-cost microfluidic platforms for diagnostic applications. <i>Electrophoresis</i> , 2014, 35, 2309-2324.	2.4	124
96	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.	7.8	25
97	Modification of microfluidic paper-based devices with silica nanoparticles. <i>Analyst, The</i> , 2014, 139, 5560-5567.	3.5	140
98	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.	3.6	198
99	Rational selection of substrates to improve color intensity and uniformity on microfluidic paper-based analytical devices. <i>Analyst, The</i> , 2014, 139, 2127-2132.	3.5	148
100	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.	2.7	21
101	Laser-printing of toner-based 96-microzone plates for immunoassays. <i>Analyst, The</i> , 2013, 138, 1114-1121.	3.5	21
102	Determination of glyphosate and AMPA on polyester- $\mu$ toner electrophoresis microchip with contactless conductivity detection. <i>Electrophoresis</i> , 2013, 34, 2107-2111.	2.4	15
103	Characterization of microchip electrophoresis devices fabricated by direct-printing process with colored toner. <i>Electrophoresis</i> , 2013, 34, 2169-2176.	2.4	16
104	Capacitively coupled contactless conductivity detection on microfluidic systems—ten years of development. <i>Analytical Methods</i> , 2012, 4, 25-33.	2.7	137
105	Polyester- $\mu$ toner electrophoresis microchips with improved analytical performance and extended lifetime. <i>Electrophoresis</i> , 2012, 33, 2660-2667.	2.4	22
106	Instrumentation design for hydrodynamic sample injection in microchip electrophoresis: A review. <i>Electrophoresis</i> , 2012, 33, 2614-2623.	2.4	23
107	Disposable polyester- $\mu$ toner electrophoresis microchips for DNA analysis. <i>Analyst, The</i> , 2012, 137, 2692.	3.5	32
108	Capillary-Driven Toner-Based Microfluidic Devices for Clinical Diagnostics with Colorimetric Detection. <i>Analytical Chemistry</i> , 2012, 84, 9002-9007.	6.5	49

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109	Contactless conductivity biosensor in microchip containing folic acid as bioreceptor. <i>Lab on A Chip</i> , 2012, 12, 1963.	6.0	24
110	High-voltage power supplies to capillary and microchip electrophoresis. <i>Electrophoresis</i> , 2012, 33, 893-898.	2.4	13
111	Rapid prototyping of polymeric electrophoresis microchips with integrated copper electrodes for contactless conductivity detection. <i>Analytical Methods</i> , 2011, 3, 168-172.	2.7	30
112	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.	6.0	20
113	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
114	Toner and paper-based fabrication techniques for microfluidic applications. <i>Electrophoresis</i> , 2010, 31, 2487-2498.	2.4	136
115	A rapid and reliable bonding process for microchip electrophoresis fabricated in glass substrates. <i>Electrophoresis</i> , 2010, 31, 2526-2533.	2.4	35
116	Dual contactless conductivity and amperometric detection on hybrid PDMS/glass electrophoresis microchips. <i>Analyst</i> , 2010, 135, 96-103.	3.5	63
117	Fabrication and integration of planar electrodes for contactless conductivity detection on polyester-toner electrophoresis microchips. <i>Electrophoresis</i> , 2008, 29, 2260-2265.	2.4	42
118	Comparison of the analytical performance of electrophoresis microchannels fabricated in PDMS, glass, and polyester-toner. <i>Electrophoresis</i> , 2008, 29, 4928-4937.	2.4	54
119	A toner-mediated lithographic technology for rapid prototyping of glass microchannels. <i>Lab on A Chip</i> , 2007, 7, 931.	6.0	52
120	Microsistemas de análises químicas: introdução, tecnologias de fabricação, instrumentação e aplicações. <i>Química Nova</i> , 2007, 30, 1986-2000.	0.3	14
121	Terminologia para as técnicas analíticas de eletromigração em capilares. <i>Química Nova</i> , 2007, 30, 740-744.	0.3	10
122	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.	3.7	41
123	Electrokinetic control of fluid in plastified laser-printed poly(ethylene terephthalate)-toner microchips. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 382, 192-197.	3.7	33
124	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.	5.5	14
125	Electrophoresis microchip fabricated by a direct-printing process with end-channel amperometric detection. <i>Electrophoresis</i> , 2004, 25, 3832-3839.	2.4	58
126	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.	3.9	67



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127	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