George L Donati

List of Publications by Year
in descending order

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Version: 2024-02-01

105 papers	2,490 citations	201674 27 h-index	254184 43 g-index
108 all docs	108 docs citations	108 times ranked	2396 citing authors

#	Article	IF	Citations
1	Acid extraction and cloud point preconcentration as sample preparation strategies for cobalt determination in biological materials by thermospray flame furnace atomic absorption spectrometry. Microchemical Journal, 2006, 82, 189-195.	4.5	86
2	Recent advances in inductively coupled plasma optical emission spectrometry. Journal of Analytical Atomic Spectrometry, 2017, 32, 1283-1296.	3.0	84
3	Traditional Calibration Methods in Atomic Spectrometry and New Calibration Strategies for Inductively Coupled Plasma Mass Spectrometry. Frontiers in Chemistry, 2018, 6, 504.	3.6	78
4	Determination of Cr, Ni, Pb and V in gasoline and ethanol fuel by microwave plasma optical emission spectrometry. Journal of Analytical Atomic Spectrometry, 2013, 28, 755.	3.0	67
5	Greening sample preparation in inorganic analysis. TrAC - Trends in Analytical Chemistry, 2013, 45, 79-92.	11.4	65
6	Multi-energy calibration applied to atomic spectrometry. Analytica Chimica Acta, 2017, 982, 31-36.	5.4	64
7	A simple dilute-and-shoot procedure for Si determination in diesel and biodiesel by microwave-induced plasma optical emission spectrometry. Microchemical Journal, 2013, 106, 318-322.	4.5	61
8	Silver nanoparticles selectively treat tripleâ€negative breast cancer cells without affecting nonâ€malignant breast epithelial cells in vitro and in vivo. FASEB BioAdvances, 2019, 1, 639-660.	2.4	59
9	Differential response of MCF7, MDA-MB-231, and MCF 10A cells to hyperthermia, silver nanoparticles and silver nanoparticle-induced photothermal therapy. International Journal of Hyperthermia, 2014, 30, 312-323.	2.5	57
10	Cesium Oleate Precursor Preparation for Lead Halide Perovskite Nanocrystal Synthesis: The Influence of Excess Oleic Acid on Achieving Solubility, Conversion, and Reproducibility. Chemistry of Materials, 2019, 31, 62-67.	6.7	55
11	Standard dilution analysis of beverages by microwave-induced plasma optical emission spectrometry. Analytica Chimica Acta, 2016, 909, 24-29.	5.4	48
12	Copper Is a Host Effector Mobilized to Urine during Urinary Tract Infection To Impair Bacterial Colonization. Infection and Immunity, 2017, 85, .	2.2	48
13	Recent developments in microwave-induced plasma optical emission spectrometry and applications of a commercial Hammer-cavity instrument. TrAC - Trends in Analytical Chemistry, 2019, 116, 151-157.	11.4	47
14	The mechanism of cell death induced by silver nanoparticles is distinct from silver cations. Particle and Fibre Toxicology, 2021, 18, 37.	6.2	45
15	Characteristics of a resonant iris microwave-induced nitrogen plasma. Journal of Analytical Atomic Spectrometry, 2016, 31, 1097-1104.	3.0	44
16	Standard Dilution Analysis. Analytical Chemistry, 2015, 87, 2321-2327.	6.5	42
17	Combining elemental analysis of toenails and machine learning techniques as a non-invasive diagnostic tool for the robust classification of type-2 diabetes. Expert Systems With Applications, 2019, 115, 245-255.	7.6	41
18	Multi-energy calibration as a strategy for elemental analysis of fertilizers by microwave-induced plasma optical emission spectrometry. Journal of Analytical Atomic Spectrometry, 2018, 33, 1168-1172.	3.0	39

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19	Multi-energy calibration (MEC) applied to laser-induced breakdown spectroscopy (LIBS). Journal of Analytical Atomic Spectrometry, 2018, 33, 1753-1762.	3.0	39
20	ICP-MS and trace element analysis as tools for better understanding medical conditions. TrAC - Trends in Analytical Chemistry, 2020, 133, 116094.	11.4	37
21	Soil nutrients and precipitation are major drivers of global patterns of grass leaf silicification. Ecology, 2020, 101, e03006.	3.2	36
22	Simultaneous determination of the Lanthanides by tungsten coil atomic emission spectrometry. Journal of Analytical Atomic Spectrometry, 2008, 23, 361-366.	3.0	35
23	Fundamentals and new approaches to calibration in atomic spectrometry. Journal of Analytical Atomic Spectrometry, 2019, 34, 2353-2369.	3.0	34
24	Determination of Cd in urine by cloud point extractionâ€“tungsten coil atomic absorption spectrometry. Talanta, 2008, 76, 1252-1255.	5.5	33
25	Microwave-Induced Plasma Optical Emission Spectrometry (MIP OES) and Standard Dilution Analysis to Determine Trace Elements in Pharmaceutical Samples. Applied Spectroscopy, 2017, 71, 2692-2698.	2.2	31
26	Multi-isotope calibration for inductively coupled plasma mass spectrometry. Analytical and Bioanalytical Chemistry, 2018, 410, 1157-1162.	3.7	31
27	Evaluation of standard dilution analysis (SDA) of beverages and foodstuffs by ICP OES. Journal of Analytical Atomic Spectrometry, 2016, 31, 1216-1222.	3.0	29
28	Signal correction using molecular species to improve biodiesel analysis by microwave-induced plasma optical emission spectrometry. Microchemical Journal, 2016, 129, 58-62.	4.5	27
29	Variation in the soil â€˜silicon landscapeâ€™ explains plant silica accumulation across environmental gradients in Serengeti. Plant and Soil, 2017, 410, 217-229.	3.7	27
30	Rugged, Portable Tungsten Coil Atomic Emission Spectrometer. Analytical Chemistry, 2011, 83, 2526-2531.	6.5	25
31	Internal standard addition calibration: Determination of calcium and magnesium by atomic absorption spectrometry. Microchemical Journal, 2015, 122, 63-69.	4.5	25
32	Expanding the potentialities of standard dilution analysis: Determination of ethanol in gasoline by Raman spectroscopy. Microchemical Journal, 2017, 133, 76-80.	4.5	24
33	Multispecies calibration: a novel application for inductively coupled plasma tandem mass spectrometry. Journal of Analytical Atomic Spectrometry, 2018, 33, 762-767.	3.0	24
34	Calculating limits of detection and defining working ranges for multi-signal calibration methods. Journal of Analytical Atomic Spectrometry, 2020, 35, 1614-1620.	3.0	24
35	Simultaneous determination of Cr, Ga, In and V in soil and water samples by tungsten coil atomic emission spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 559-564.	2.9	22
36	Application of the interference standard method for the determination of sulfur, manganese and iron in foods by inductively coupled plasma mass spectrometry. Analytica Chimica Acta, 2011, 706, 223-228.	5.4	22

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37	Naturally occurring molecular species used for plasma diagnostics and signal correction in microwave-induced plasma optical emission spectrometry. Journal of Analytical Atomic Spectrometry, 2018, 33, 1224-1232.	3.0	22
38	Direct determination of sodium, potassium, chromium and vanadium in biodiesel fuel by tungsten coil atomic emission spectrometry. Analytica Chimica Acta, 2014, 806, 85-90.	5.4	21
39	Relationship between Selenium and Hematological Markers in Young Adults with Normal Weight or Overweight/Obesity. Antioxidants, 2019, 8, 463.	5.1	21
40	A new atomization cell for trace metal determinations by tungsten coil atomic spectrometry. Analytica Chimica Acta, 2011, 688, 36-42.	5.4	20
41	Interference standard: a new approach to minimizing spectral interferences in inductively coupled plasma mass spectrometry. Journal of Analytical Atomic Spectrometry, 2011, 26, 1827.	3.0	19
42	Tungsten coil electrothermal matrix decomposition and sample vaporization to determine P and Si in biodiesel by inductively coupled plasma mass spectrometry. Journal of Analytical Atomic Spectrometry, 2013, 28, 280-287.	3.0	19
43	The reversed-axis method to estimate precision in standard additions analysis. Microchemical Journal, 2016, 124, 155-158.	4.5	19
44	An overview of electrothermal excitation sources for atomic emission spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 191-198.	2.9	17
45	Double tungsten coil atomic emission spectrometry: signal enhancement and a new gas phase temperature probe. Journal of Analytical Atomic Spectrometry, 2009, 24, 1105.	3.0	17
46	Copper Resistance Promotes Fitness of Methicillin-Resistant Staphylococcus aureus during Urinary Tract Infection. MBio, 2021, 12, e0203821.	4.1	17
47	Interference standard applied to sulfur determination in biodiesel microemulsions by ICP-QMS. Journal of the Brazilian Chemical Society, 2012, 23, 797-803.	0.6	16
48	Bismuth as a general internal standard for lead in atomic absorption spectrometry. Analytica Chimica Acta, 2014, 831, 24-30.	5.4	16
49	Inductively coupled plasma mass spectrometry and standard dilution analysis applied to concentrated acids. Talanta, 2016, 161, 826-829.	5.5	16
50	Multi-flow calibration applied to microwave-induced plasma optical emission spectrometry. Journal of Analytical Atomic Spectrometry, 2019, 34, 1191-1197.	3.0	16
51	Interference standard and oxide ion detection as strategies to determine phosphorus and sulfur in fuel samples by inductively coupled plasma quadrupole mass spectrometry. Journal of Analytical Atomic Spectrometry, 2012, 27, 1274.	3.0	15
52	Design and cellular studies of a carbon nanotube-based delivery system for a hybrid platinum-acridine anticancer agent. Journal of Inorganic Biochemistry, 2016, 165, 170-180.	3.5	15
53	Standard dilution analysis in flow system: Sodium determination by flame atomic emission spectrometry. Microchemical Journal, 2016, 124, 662-667.	4.5	15
54	Dry ashing and microwave-induced plasma optical emission spectrometry as a fast and cost-effective strategy for trace element analysis. Microchemical Journal, 2017, 132, 15-19.	4.5	15

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55	Automated matrix-matching calibration using standard dilution analysis with two internal standards and a simple three-port mixing chamber. Talanta, 2019, 205, 120160.	5.5	15
56	Multi-energy calibration for the determination of non-metals by high-resolution continuum source molecular absorption spectrometry. Journal of Analytical Atomic Spectrometry, 2019, 34, 972-978.	3.0	15
57	Survey of Lead in Drinking Water from Schools and Child Care Centers Operating as Public Water Suppliers in North Carolina, USA: Implications for Future Legislation. Environmental Science & Technology, 2020, 54, 14152-14160.	10.0	15
58	Development of a novel spectrometric-based temperature probe and the investigation of atomic cloud generation in a tungsten coil atomizer. Journal of Analytical Atomic Spectrometry, 2011, 26, 838.	3.0	13
59	Evaluation of sample preparation procedures and krypton as an interference standard probe for arsenic speciation by HPLC-ICP-QMS. Journal of Analytical Atomic Spectrometry, 2013, 28, 1303.	3.0	13
60	Direct determination of chromium in empty medicine capsules by tungsten coil atomic emission spectrometry. Journal of Analytical Atomic Spectrometry, 2015, 30, 1395-1399.	3.0	13
61	Structural and mechanical characterization of bioresorbable, elastomeric nanocomposites from poly(glycerol sebacate)/nanohydroxyapatite for tissue transport applications. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 1366-1373.	3.4	13
62	Automated standard dilution analysis. Journal of Analytical Atomic Spectrometry, 2020, 35, 178-187.	3.0	13
63	Effects of platinum-based anticancer drugs on the trace element profile of liver and kidney tissue from mice. Journal of Trace Elements in Medicine and Biology, 2019, 54, 62-68.	3.0	12
64	Copper primes adaptation of uropathogenic Escherichia coli to superoxide stress by activating superoxide dismutases. PLoS Pathogens, 2020, 16, e1008856.	4.7	12
65	Machine learning tools to estimate the severity of matrix effects and predict analyte recovery in inductively coupled plasma optical emission spectrometry. Talanta, 2021, 223, 121665.	5.5	12
66	Multi-Wavelength Determination of Cobalt by Tungsten Coil Atomic Emission Spectrometry. Analytical Letters, 2010, 43, 1723-1733.	1.8	11
67	A genome-wide screen reveals the involvement of enterobactin-mediated iron acquisition inEscherichia colisurvival during copper stress. Metallomics, 2021, 13, .	2.4	11
68	Indirect determination of iodide by tungsten coil atomic emission spectrometry. Microchemical Journal, 2009, 93, 242-246.	4.5	10
69	Evaluating the applicability of multi-energy calibration as an alternative method for quantitative molecular spectroscopy analysis. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 221, 117221.	3.9	10
70	Strategies to improve accuracy and sensitivity in phosphorus determinations by inductively coupled plasma quadrupole mass spectrometry. Journal of the Brazilian Chemical Society, 2012, 23, 786-791.	0.6	8
71	The interference standard method: evidence of principle, potentialities and limitations. Journal of Analytical Atomic Spectrometry, 2014, 29, 1258-1264.	3.0	8
72	Evaluation of different approaches to applying the standard additions calibration method. Analytical and Bioanalytical Chemistry, 2021, 413, 1293-1302.	3.7	8

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73	Trace Element Analysis of Fusel Oil by Microwave-Induced Plasma Optical Emission Spectrometry. Current Analytical Chemistry, 2017, 13, .	1.2	8
74	Is MIP-OES a suitable alternative to ICP-OES for trace element analysis?. Journal of Analytical Atomic Spectrometry, 2022, 37, 966-984.	3.0	8
75	Continuum Source Tungsten Coil Atomic Fluorescence Spectrometry. Applied Spectroscopy, 2011, 65, 382-385.	2.2	7
76	Old and New Flavors of Flame (Furnace) Atomic Absorption Spectrometry. International Journal of Spectroscopy, 2011, 2011, 1-30.	1.6	7
77	Chemical modification in atomic emission: Determination of V in lubricant oils by tungsten coil atomic emission spectrometry. Microchemical Journal, 2014, 115, 58-62.	4.5	7
78	Inductively coupled plasma optical emission spectrometry as a reference method for silicon estimation by near infrared spectroscopy and potential application to global-scale studies of plant chemistry. Microchemical Journal, 2016, 129, 231-235.	4.5	7
79	Trace element analysis of urine by ICP-MS/MS to identify urinary tract infection. Journal of Analytical Atomic Spectrometry, 2017, 32, 1590-1594.	3.0	7
80	A Low Iron Diet Protects from Steatohepatitis in a Mouse Model. Nutrients, 2019, 11, 2172.	4.1	7
81	Identifying and assessing matrix effect severity in inductively coupled plasma optical emission spectrometry using non-analyte signals and unsupervised learning. Analytica Chimica Acta, 2019, 1062, 37-46.	5.4	7
82	Effect of the nonleaving groups on the cellular uptake and cytotoxicity of platinum-acridine anticancer agents. Inorganica Chimica Acta, 2019, 492, 150-155.	2.4	7
83	Non-analyte signals and supervised learning to evaluate matrix effects and predict analyte recoveries in inductively coupled plasma optical emission spectrometry. Journal of Analytical Atomic Spectrometry, 2020, 35, 679-692.	3.0	7
84	Low Doses of Silver Nanoparticles Selectively Induce Lipid Peroxidation and Proteotoxic Stress in Mesenchymal Subtypes of Triple-Negative Breast Cancer. Cancers, 2021, 13, 4217.	3.7	7
85	Enzymatic proteolysis and in situ digestion as strategies to determine Cs and Sr in fish by tungsten coil atomic emission spectrometry. Journal of Analytical Atomic Spectrometry, 2012, 27, 2082.	3.0	6
86	In situ digestion for the determination of Ca in beverages by tungsten coil atomic emission spectrometry. Talanta, 2012, 97, 285-290.	5.5	6
87	Evaluation of atomizer conditioning and pyrolysis and atomization temperature control to improve procedures based on tungsten coil atomic emission spectrometry. Microchemical Journal, 2013, 110, 758-763.	4.5	6
88	Evaluation of Mg and Mn determination in water and plants using continuum source tungsten coil atomic fluorescence spectrometry. Microchemical Journal, 2014, 117, 250-254.	4.5	6
89	Evaluation of metabisulfite and a commercial steel wool for removing chromium(VI) from wastewater. Environmental Chemistry Letters, 2010, 8, 73-77.	16.2	5
90	Focused-microwave-induced combustion: investigation of KClO3 thermal decomposition as O2 source. Analytical Methods, 2011, 3, 1688.	2.7	5

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91	Cobalt as chemical modifier to improve chromium sensitivity and minimize matrix effects in tungsten coil atomic emission spectrometry. Analytica Chimica Acta, 2013, 780, 7-12.	5.4	5
92	Magnesium nitrate as a chemical modifier to improve sensitivity in manganese determination in plant materials by tungsten coil atomic emission spectrometry. Journal of Analytical Atomic Spectrometry, 2014, 29, 1499-1503.	3.0	5
93	Matrix-matched two-point calibration based on the standard dilution analysis method. Microchemical Journal, 2021, 160, 105740.	4.5	5
94	Trace Element Analysis, Model-Based Clustering and Flushing to Prevent Drinking Water Contamination in Public Schools. Journal of the Brazilian Chemical Society, 0, , .	0.6	4
95	Sampling and Sample Homogeneity as Introductory Topics in Analytical Chemistry Undergraduate Courses. Spectroscopy Letters, 2008, 41, 251-257.	1.0	3
96	Simultaneous quantification of seven multi-class organic molecules by single-shot dilution differential pulse voltammetric calibration. Talanta, 2022, 237, 122975.	5.5	3
97	Multi-internal standard calibration applied to inductively coupled plasma optical emission spectrometry. Analytica Chimica Acta, 2022, 1190, 339258.	5.4	3
98	Determination of Trace Elements in Cow Placenta by Tungsten Coil Atomic Emission Spectrometry. Biological Trace Element Research, 2017, 178, 228-234.	3.5	2
99	Effect of Genetic Crossing and Nutritional Management on the Mineral Composition of Carcass, Blood, Leather, and Viscera of Sheep. Biological Trace Element Research, 2021, 199, 4133-4144.	3.5	2
100	The Case of the Limit of Detection. Brazilian Journal of Analytical Chemistry, 2022, 9, 8-9.	0.5	2
101	Evaluation of Tungsten Coil Atomic Emission Spectrometry for the Direct Determination of Al in Tea Infusions and Iced Tea. Food Analytical Methods, 2016, 9, 624-629.	2.6	1
102	Investigating the origins of double photopeaks in CsI:Tl samples through activator mapping. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 893, 151-156.	1.6	1
103	Advanced statistical tools and machine learning applied to elemental analysis associated with medical conditions. Comprehensive Analytical Chemistry, 2022, , .	1.3	1
104	Alternative Approaches Applied to Inductively Coupled Plasma Techniques: Multiâ€'Flow and Two-Flow Calibration. Journal of the Brazilian Chemical Society, 0, , .	0.6	0
105	Decompartmentalized Knowledge and Core Analytical Chemistry Concepts. Brazilian Journal of Analytical Chemistry, 2020, 7, .	0.5	0