

Beatriz Fernandez

List of Publications by Year in descending order

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85
papers

1,971
citations

270111

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h-index

312153

41
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86
all docs

86
docs citations

86
times ranked

1777
citing authors

#	ARTICLE	IF	CITATIONS
1	Gold nanoclusters as elemental label for the sequential quantification of apolipoprotein E and metallothionein 2A in individual human cells of the retinal pigment epithelium using single cell-ICP-MS. <i>Analytica Chimica Acta</i> , 2022, 1203, 339701.	2.6	7
2	Iridium nanoclusters as high sensitive-tunable elemental labels for immunoassays: Determination of IgE and APOE in aqueous humor by inductively coupled plasma-mass spectrometry. <i>Talanta</i> , 2022, 244, 123424.	2.9	8
3	General purification methods of metal nanoclusters. , 2022, , 161-186.		0
4	Real matrix-matched standards for quantitative bioimaging of cytosolic proteins in individual cells using metal nanoclusters as immunoprobes-label: A case study using laser ablation ICP-MS detection. <i>Analytica Chimica Acta</i> , 2022, 1221, 340128.	2.6	5
5	Multiplex bioimaging of proteins-related to neurodegenerative diseases in eye sections by laser ablation - Inductively coupled plasma " Mass spectrometry using metal nanoclusters as labels. <i>Talanta</i> , 2021, 221, 121489.	2.9	19
6	Synthesis of Iridium and Palladium Nanoclusters for Biomedical Applications. <i>Materials Proceedings</i> , 2021, 4, 49.	0.2	0
7	Nanoparticles as labels of specific-recognition reactions for the determination of biomolecules by inductively coupled plasma-mass spectrometry. <i>Analytica Chimica Acta</i> , 2020, 1128, 251-268.	2.6	23
8	Pulsed radiofrequency glow discharge time-of-flight mass spectrometry: Depth profile analysis of multilayers on conductive and non-conductive substrates. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2020, 168, 105865.	1.5	2
9	Imaging of proteins in biological tissues by fluorescence microscopy and laser ablation-ICP-MS using natural and isotopically enriched silver nanoclusters. <i>Journal of Analytical Atomic Spectrometry</i> , 2020, 35, 1868-1879.	1.6	10
10	Microcentrifuge tubes as disposable immunoelectrochemical cells for the on-site detection of GFAP, biomarker of hemorrhagic stroke. , 2020, 60, .		1
11	Synthesis of Size Monodisperse Water-Soluble Metal Nanoclusters for Protein Quantification by Elemental Mass Spectrometry. <i>Materials Proceedings</i> , 2020, 4, .	0.2	0
12	Bimodal determination of immunoglobulin E by fluorometry and ICP-MS by using platinum nanoclusters as a label in an immunoassay. <i>Mikrochimica Acta</i> , 2019, 186, 705.	2.5	10
13	Laser ablation ICP-MS for simultaneous quantitative imaging of iron and ferroportin in hippocampus of human brain tissues with Alzheimer's disease. <i>Talanta</i> , 2019, 197, 413-421.	2.9	64
14	Plasma profiling-time of flight mass spectrometry: considerations to exploit its analytical performance for materials characterization. <i>Journal of Analytical Atomic Spectrometry</i> , 2019, 34, 702-707.	1.6	1
15	Fluorescent silver nanoclusters as antibody label in a competitive immunoassay for the complement factor H. <i>Mikrochimica Acta</i> , 2019, 186, 429.	2.5	14
16	Isotopically Enriched Tracers and Inductively Coupled Plasma Mass Spectrometry Methodologies to Study Zinc Supplementation in Single-Cells of Retinal Pigment Epithelium in Vitro. <i>Analytical Chemistry</i> , 2019, 91, 4488-4495.	3.2	10
17	Elemental and molecular imaging by LA-ICP-MS. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 547-548.	1.9	5
18	Quantitative mapping of specific proteins in biological tissues by laser ablation"ICP-MS using exogenous labels: aspects to be considered. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 549-558.	1.9	27

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19	Rapid evaluation of different perovskite absorber layers through the application of depth profile analysis using glow discharge " Time of flight mass spectrometry. <i>Talanta</i> , 2019, 192, 317-324.	2.9	3
20	Silicon induced Fe deficiency affects Fe, Mn, Cu and Zn distribution in rice (<i>Oryza sativa</i> L.) growth in calcareous conditions. <i>Plant Physiology and Biochemistry</i> , 2018, 125, 153-163.	2.8	26
21	Bioimaging of metallothioneins in ocular tissue sections by laser ablation-ICP-MS using bioconjugated gold nanoclusters as specific tags. <i>Mikrochimica Acta</i> , 2018, 185, 64.	2.5	27
22	Quantitative study of zinc and metallothioneins in the human retina and RPE cells by mass spectrometry-based methodologies. <i>Talanta</i> , 2018, 178, 222-230.	2.9	20
23	The Zinc-Metallothionein Redox System Reduces Oxidative Stress in Retinal Pigment Epithelial Cells. <i>Nutrients</i> , 2018, 10, 1874.	1.7	39
24	Elemental Direct Solid Analysis (GD-OES, LIBS, GD-MS and LA-ICP-MS). , 2018, , 1-1.		0
25	Quantitative Imaging of Specific Proteins in the Human Retina by Laser Ablation ICPMS using Bioconjugated Metal Nanoclusters as Labels. <i>Analytical Chemistry</i> , 2018, 90, 12145-12151.	3.2	26
26	Iron and Zinc in the Embryo and Endosperm of Rice (<i>Oryza sativa</i> L.) Seeds in Contrasting $\delta^{15}N$ -Deoxymugineic Acid/Nicotianamine Scenarios. <i>Frontiers in Plant Science</i> , 2018, 9, 1190.	1.7	47
27	Atomic Absorption Spectrometry: Fundamentals, Instrumentation and Capabilities. , 2018, , 137-137.		7
28	Atomic Mass Spectrometry/LA-ICP-MS. , 2018, , 218-218.		0
29	Opportunities and challenges of isotopic analysis by laser ablation ICP-MS in biological studies. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 105, 380-390.	5.8	22
30	Characterization of thin film tandem solar cells by radiofrequency pulsed glow discharge " Time of flight mass spectrometry. <i>Talanta</i> , 2017, 165, 289-296.	2.9	11
31	Quantitative distribution of Zn, Fe and Cu in the human lens and study of the Zn "metallothionein redox system in cultured lens epithelial cells by elemental MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 1746-1756.	1.6	13
32	Depth profile analysis with glow discharge spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 920-930.	1.6	33
33	Synthesis of amino-functionalized silica nanoparticles for preparation of new laboratory standards. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2017, 138, 1-7.	1.5	9
34	Capabilities of radiofrequency pulsed glow discharge-time of flight mass spectrometry for molecular screening in polymeric materials: positive versus negative ion mode. <i>Journal of Analytical Atomic Spectrometry</i> , 2016, 31, 212-219.	1.6	7
35	Depth Profile Analysis of Amorphous Silicon Thin Film Solar Cells by Pulsed Radiofrequency Glow Discharge Time of Flight Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2015, 26, 305-314.	1.2	8
36	Pulsed radiofrequency glow discharge time of flight mass spectrometry for coated glass analysis. <i>Journal of Analytical Atomic Spectrometry</i> , 2015, 30, 1108-1116.	1.6	14

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37	A path towards a better characterisation of silicon thin-film solar cells: depth profile analysis by pulsed radiofrequency glow discharge optical emission spectrometry. <i>Progress in Photovoltaics: Research and Applications</i> , 2014, 22, 1246-1255.	4.4	11
38	Design and evaluation of a new Peltier-cooled laser ablation cell with on-sample temperature control. <i>Analytica Chimica Acta</i> , 2014, 809, 88-96.	2.6	36
39	Improving pulsed radiofrequency glow discharge for time-of-flight mass spectrometry simultaneous elemental and molecular analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 7431-7443.	1.9	0
40	Quantitative bioimaging of trace elements in the human lens by LA-ICP-MS. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 2343-2348.	1.9	50
41	On-line double isotope dilution laser ablation inductively coupled plasma mass spectrometry for the quantitative analysis of solid materials. <i>Analytica Chimica Acta</i> , 2014, 851, 64-71.	2.6	20
42	A Possible Growth Mechanism for ZnO-TiO ₂ Composite Nanostructured Films Prepared by Electrodeposition. <i>Journal of the Electrochemical Society</i> , 2014, 161, D125-D133.	1.3	12
43	Gold internal standard correction for elemental imaging of soft tissue sections by LA-ICP-MS: element distribution in eye microstructures. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 3091-3096.	1.9	53
44	Detection of transgenerational barium dual-isotope marks in salmon otoliths by means of LA-ICP-MS. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 2901-2909.	1.9	20
45	Elemental analyses of soil and sediment fused with lithium borate using isotope dilution laser ablation-inductively coupled plasma-mass spectrometry. <i>Analytica Chimica Acta</i> , 2013, 793, 72-78.	2.6	21
46	Isotope dilution mass spectrometry for quantitative elemental analysis of powdered samples by radiofrequency pulsed glow discharge time of flight mass spectrometry. <i>Talanta</i> , 2013, 115, 657-664.	2.9	5
47	Challenging identifications of polymer coatings by radiofrequency pulsed glow discharge-time of flight mass spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 1054.	1.6	7
48	Critical evaluation of the potential of radiofrequency pulsed glow discharge-time-of-flight mass spectrometry for depth-profile analysis of innovative materials. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 5655-5662.	1.9	27
49	RF-pulsed glow discharge time-of-flight mass spectrometry for glass analysis: Investigation of the ion source design. <i>Analytica Chimica Acta</i> , 2012, 756, 30-36.	2.6	11
50	Influence of the hydrogen contained in amorphous silicon thin films on a pulsed radiofrequency argon glow discharge coupled to time of flight mass spectrometry. Comparison with the addition of hydrogen as discharge gas. <i>Journal of Analytical Atomic Spectrometry</i> , 2012, 27, 71-79.	1.6	8
51	Endogenous and exogenous hydrogen influence on amorphous silicon thin films analysis by pulsed radiofrequency glow discharge optical emission spectrometry. <i>Analytica Chimica Acta</i> , 2012, 714, 1-7.	2.6	9
52	Plasma immersion ion implantation for reducing metal ion release. , 2012, , .		1
53	Pulsed glow discharge time of flight mass spectrometry for the screening of polymer-based coatings containing brominated flame retardants. <i>Journal of Analytical Atomic Spectrometry</i> , 2012, 27, 318-326.	1.6	14
54	Laser ablation ICP-MS for quantitative biomedical applications. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 403, 2113-2125.	1.9	113

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55	P, S and Cl trace detection by laser ablation double-focusing sector field ICP-MS to identify local defects in coated glasses. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 1526.	1.6	4
56	Quantitative depth profiling of boron and arsenic ultra low energy implants by pulsed rf-GD-ToFMS. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 542-549.	1.6	18
57	Pulsed Radiofrequency Glow Discharge Time-of-Flight Mass Spectrometry for Nanostructured Materials Characterization. <i>Analytical Chemistry</i> , 2011, 83, 329-337.	3.2	25
58	Absolute Quantification of Human Serum Transferrin by Species-Specific Isotope Dilution Laser Ablation ICP-MS. <i>Analytical Chemistry</i> , 2011, 83, 5353-5360.	3.2	38
59	Analytical performance of pulsed radiofrequency glow discharge optical emission spectrometry for bulk and in-depth profile analysis of conductors and insulators. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 776-783.	1.6	11
60	Depth profile characterization of Zn ²⁺ /TiO ₂ nanocomposite films by pulsed radiofrequency glow discharge-optical emission spectrometry. <i>Talanta</i> , 2011, 84, 572-578.	2.9	15
61	Quantitative depth profile analysis of metallic coatings by pulsed radiofrequency glow discharge optical emission spectrometry. <i>Analytica Chimica Acta</i> , 2011, 684, 47-53.	2.6	13
62	Studies on the Stability of Zn and Zn ²⁺ /TiO ₂ Nanocomposite Coatings Prepared by Pulse Reverse Current. <i>Journal of the Electrochemical Society</i> , 2011, 158, C63.	1.3	7
63	Characterization of Doped Amorphous Silicon Thin Films through the Investigation of Dopant Elements by Glow Discharge Spectrometry: A Correlation of Conductivity and Bandgap Energy Measurements. <i>International Journal of Molecular Sciences</i> , 2011, 12, 2200-2215.	1.8	4
64	Inorganic mass spectrometry as a tool for characterisation at the nanoscale. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 396, 15-29.	1.9	55
65	Investigation of glow-discharge-induced morphology modifications on silicon wafers and chromium conversion coatings by AFM and rugosimetry. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 396, 2841-2853.	1.9	6
66	Depth profile analysis: coatings and thin layers. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 396, 2723-2724.	1.9	1
67	Glow discharge analysis of nanostructured materials and nanolayers—A review. <i>Analytica Chimica Acta</i> , 2010, 679, 7-16.	2.6	31
68	Pulsed radiofrequency glow discharge optical emission spectrometry for the direct characterisation of photovoltaic thin film silicon solar cells. <i>Journal of Analytical Atomic Spectrometry</i> , 2010, 25, 370.	1.6	21
69	Characterization of the aerosol produced by infrared femtosecond laser ablation of polyacrylamide gels for the sensitive inductively coupled plasma mass spectrometry detection of selenoproteins. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2009, 64, 649-658.	1.5	15
70	The effect of glow discharge sputtering on the analysis of metal oxide films. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2009, 64, 155-166.	1.5	22
71	Critical revision of GD-MS, LA-ICP-MS and SIMS as inorganic mass spectrometric techniques for direct solid analysis. <i>Journal of Analytical Atomic Spectrometry</i> , 2009, 24, 1145.	1.6	153
72	Elemental fractionation effects in high repetition rate IR femtosecond laser ablation ICP-MS analysis of glasses. <i>Journal of Analytical Atomic Spectrometry</i> , 2009, 24, 891.	1.6	50

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73	In-depth profile analysis of oxide films by radiofrequency glow discharge optical emission spectrometry (rf-GD-OES): possibilities of depth-resolved solid-state speciation. <i>Journal of Analytical Atomic Spectrometry</i> , 2008, 23, 1378.	1.6	13
74	Solid-spiking isotope dilution laser ablation ICP-MS for the direct and simultaneous determination of trace elements in soils and sediments. <i>Journal of Analytical Atomic Spectrometry</i> , 2008, 23, 367-377.	1.6	43
75	Direct Determination of Trace Elements in Powdered Samples by In-Cell Isotope Dilution Femtosecond Laser Ablation ICPMS. <i>Analytical Chemistry</i> , 2008, 80, 6981-6994.	3.2	47
76	Direct analysis of solid samples by fs-LA-ICP-MS. <i>TrAC - Trends in Analytical Chemistry</i> , 2007, 26, 951-966.	5.8	181
77	Nitrogen effects in multi-matrix calibrations by radiofrequency glow discharge " optical emission spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 389, 743-752.	1.9	7
78	Application of radiofrequency glow discharge-optical emission spectrometry for direct analysis of main components of glass samples. <i>Journal of Analytical Atomic Spectrometry</i> , 2006, 21, 1412-1418.	1.6	5
79	Glow-discharge spectrometry for direct analysis of thin and ultra-thin solid films. <i>TrAC - Trends in Analytical Chemistry</i> , 2006, 25, 11-18.	5.8	103
80	In-depth profile analysis of thin films deposited on non-conducting glasses by radiofrequency glow-discharge "optical emission spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 384, 876-886.	1.9	11
81	Determination of phosphorus and carbon in phosphorylated deoxynucleotides via particle beam/hollow cathode glow discharge optical emission spectroscopy (PB/HC-OES). <i>Journal of Analytical Atomic Spectrometry</i> , 2005, 20, 924.	1.6	10
82	The effect of thin conductive layers on glass on the performance of radiofrequency glow discharge optical emission spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2005, 20, 462-466.	1.6	18
83	Radio Frequency Glow Discharge-Optical Emission Spectrometry For Direct Quantitative Analysis of Glass. <i>Analytical Chemistry</i> , 2004, 76, 1039-1044.	3.2	27
84	Investigations of the effect of hydrogen, nitrogen or oxygen on the in-depth profile analysis by radiofrequency argon glow discharge-optical emission spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2003, 18, 151-156.	1.6	42
85	The influence of hydrogen, nitrogen or oxygen additions to radiofrequency argon glow discharges for optical emission spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2002, 17, 1549-1555.	1.6	39