

Norbert Jakubowski

List of Publications by Year in descending order

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101
papers

4,214
citations

87888

38
h-index

128289

60
g-index

103
all docs

103
docs citations

103
times ranked

3679
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative Imaging of Gold and Silver Nanoparticles in Single Eukaryotic Cells by Laser Ablation ICP-MS. <i>Analytical Chemistry</i> , 2012, 84, 9684-9688.	6.5	191
2	Analysis of Protein Phosphorylation by Capillary Liquid Chromatography Coupled to Element Mass Spectrometry with ³¹ P Detection and to Electro Spray Mass Spectrometry. <i>Analytical Chemistry</i> , 2001, 73, 29-35.	6.5	164
3	The synergy of elemental and biomolecular mass spectrometry: new analytical strategies in life sciences. <i>Chemical Society Reviews</i> , 2009, 38, 1969.	38.1	133
4	Elemental Bioimaging in Kidney by LA-ICP-MS As a Tool to Study Nephrotoxicity and Renal Protective Strategies in Cisplatin Therapies. <i>Analytical Chemistry</i> , 2011, 83, 7933-7940.	6.5	130
5	Trends in single-cell analysis by use of ICP-MS. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 6963-6977.	3.7	129
6	Nanomaterials: certain aspects of application, risk assessment and risk communication. <i>Archives of Toxicology</i> , 2018, 92, 121-141.	4.2	109
7	Speciation of Chromium by Direct Coupling of Ion Exchange Chromatography With Inductively Coupled Plasma Mass Spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 1997, 12, 1155-1161.	3.0	97
8	Multiplexed Immunohistochemical Detection of Tumor Markers in Breast Cancer Tissue Using Laser Ablation Inductively Coupled Plasma Mass Spectrometry. <i>Analytical Chemistry</i> , 2011, 83, 8177-8183.	6.5	97
9	Changes of the Metal Composition in German White Wines through the Winemaking Process. A Study of 63 Elements by Inductively Coupled Plasma-Mass Spectrometry. <i>Journal of Agricultural and Food Chemistry</i> , 2004, 52, 2953-2961.	5.2	90
10	State of the art report of selenium speciation in biological samples. <i>Journal of Analytical Atomic Spectrometry</i> , 2006, 21, 639-654.	3.0	89
11	Metallobiomolecules. The basis of life, the challenge of atomic spectroscopy. <i>Journal of Analytical Atomic Spectrometry</i> , 2004, 19, 1.	3.0	86
12	Classification of German White Wines with Certified Brand of Origin by Multielement Quantitation and Pattern Recognition Techniques. <i>Journal of Agricultural and Food Chemistry</i> , 2004, 52, 2962-2974.	5.2	82
13	Quantification and visualization of cellular uptake of TiO ₂ and Ag nanoparticles: comparison of different ICP-MS techniques. <i>Journal of Nanobiotechnology</i> , 2016, 14, 50.	9.1	82
14	Labelling of proteins with 2-(4-isothiocyanatobenzyl)-1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid and lanthanides and detection by ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2008, 23, 1497.	3.0	80
15	Sample introduction of single selenized yeast cells (<i>Saccharomyces cerevisiae</i>) by micro droplet generation into an ICP-sector field mass spectrometer for label-free detection of trace elements. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 637.	3.0	77
16	Trends in glow discharge spectroscopy. <i>Journal of Analytical Atomic Spectrometry</i> , 2007, 22, 722.	3.0	73
17	Comparison of different nebulisers and chromatographic techniques for the speciation of selenium in nutritional commercial supplements by hexapole collision and reaction cell ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2000, 15, 1093-1102.	3.0	71
18	Application of a micro-droplet generator for an ICP-sector field mass spectrometer optimization and analytical characterization. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 646.	3.0	70

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19	Iodine as an elemental marker for imaging of single cells and tissue sections by laser ablation inductively coupled plasma mass spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 2160.	3.0	69
20	Superficial white matter imaging: Contrast mechanisms and whole-brain in vivo mapping. <i>Science Advances</i> , 2020, 6, .	10.3	65
21	Optimisation of a laser ablation cell for detection of hetero-elements in proteins blotted onto membranes by use of inductively coupled plasma mass spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2006, 21, 1006.	3.0	62
22	Inductively coupled plasma- and glow discharge plasma-sector field mass spectrometry : Part I. Tutorial: Fundamentals and instrumentation. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 693.	3.0	61
23	Relating surface-enhanced Raman scattering signals of cells to gold nanoparticle aggregation as determined by LA-ICP-MS micromapping. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 7003-7014.	3.7	61
24	Speciation of selenium in human urine by HPLC-ICP-MS with a collision and reaction cell. <i>Journal of Analytical Atomic Spectrometry</i> , 2001, 16, 457-463.	3.0	60
25	Comparison of different chelates for lanthanide labeling of antibodies and application in a Western blot immunoassay combined with detection by laser ablation (LA)-ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2012, 27, 1311.	3.0	55
26	Bioaccumulation of platinum group elements and characterization of their species in <i>Lolium multiflorum</i> by size-exclusion chromatography coupled with ICP-MS. <i>Science of the Total Environment</i> , 2004, 322, 95-108.	8.0	53
27	Labelling of proteins by use of iodination and detection by ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2008, 23, 1487.	3.0	52
28	Plasma diagnostics of an analytical Grimm-type glow discharge in argon and in neon: Langmuir probe and optical emission spectrometry measurements. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 1995, 50, 1337-1349.	2.9	50
29	History of inductively coupled plasma mass spectrometry-based immunoassays. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2012, 76, 27-39.	2.9	49
30	In situ Characterization of SiO ₂ Nanoparticle Biointeractions Using BrightSilica. <i>Advanced Functional Materials</i> , 2014, 24, 3765-3775.	14.9	48
31	Labelling of antibodies and detection by laser ablation inductively coupled plasma mass spectrometry : PART III. Optimization of antibody labelling for application in a Western blot procedure. <i>Journal of Analytical Atomic Spectrometry</i> , 2009, 24, 924.	3.0	46
32	Single-cell analysis by use of ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2020, 35, 1784-1813.	3.0	46
33	Quantitative determination of melphalan DNA adducts using HPLC ⁺ inductively coupled mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2006, 41, 507-516.	1.6	45
34	Speciation of gadolinium in surface water samples and plants by hydrophilic interaction chromatography hyphenated with inductively coupled plasma mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 1865-1873.	3.7	44
35	Analysis of Gadolinium-based contrast agents in tap water with a new hydrophilic interaction chromatography (ZIC-cHILIC) hyphenated with inductively coupled plasma mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 2415-2422.	3.7	44
36	Microchemical determination of platinum and iridium by glow discharge mass spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 1991, 46, 155-163.	2.9	42

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37	Development and analytical characterization of a Grimm-type glow discharge ion source operated with high gas flow rates and coupled to a mass spectrometer with high mass resolution. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2002, 57, 1521-1533.	2.9	41
38	Styrene oxide DNA adducts: quantitative determination using ³¹ P monitoring. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 381, 205-211.	3.7	40
39	Gadolinium-uptake by aquatic and terrestrial organisms-distribution determined by laser ablation inductively coupled plasma mass spectrometry. <i>Environmental Sciences: Processes and Impacts</i> , 2016, 18, 200-207.	3.5	39
40	Laser ablation-ICP-MS assay development for detecting Cd- and Zn-binding proteins in Cd-exposed <i>Spinacia oleracea</i> L.. <i>Journal of Analytical Atomic Spectrometry</i> , 2007, 22, 878.	3.0	38
41	On-line coupling of gel electrophoresis (GE) and inductively coupled plasma-mass spectrometry (ICP-MS) for the detection of Fe in metalloproteins. <i>Journal of Analytical Atomic Spectrometry</i> , 2007, 22, 917-924.	3.0	37
42	Quantitative characterization of single cells by use of immunocytochemistry combined with multiplex LA-ICP-MS. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 3667-3676.	3.7	37
43	Multi-parametric analysis of cytochrome P450 expression in rat liver microsomes by LA-ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 310-319.	3.0	36
44	LA-ICP-MS and nHPLC-ESI-LTQ-FT-MS/MS for the analysis of cisplatin-protein complexes separated by two dimensional gel electrophoresis in biological samples. <i>Journal of Analytical Atomic Spectrometry</i> , 2012, 27, 1474.	3.0	36
45	A multi-parametric microarray for protein profiling: simultaneous analysis of 8 different cytochromes via differentially element tagged antibodies and laser ablation ICP-MS. <i>Analyst, The</i> , 2013, 138, 6309.	3.5	36
46	Investigation of a Combined Microdroplet Generator and Pneumatic Nebulization System for Quantitative Determination of Metal-Containing Nanoparticles Using ICPMS. <i>Analytical Chemistry</i> , 2015, 87, 8687-8694.	6.5	36
47	LA-ICP-MS Allows Quantitative Microscopy of Europium-Doped Iron Oxide Nanoparticles and is a Possible Alternative to Ambiguous Prussian Blue Iron Staining. <i>Journal of Biomedical Nanotechnology</i> , 2016, 12, 1001-1010.	1.1	36
48	Detection of electrophoretically separated cytochromes P450 by element-labelled monoclonal antibodies via laser ablation inductively coupled plasma mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 392, 1135-1147.	3.7	35
49	Iodination of proteins, proteomes and antibodies with potassium triiodide for LA-ICP-MS based proteomic analyses. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 1610.	3.0	35
50	Printing metal-spiked inks for LA-ICP-MS bioimaging internal standardization: comparison of the different nephrotoxic behavior of cisplatin, carboplatin, and oxaliplatin. <i>Analytical and Bioanalytical Chemistry</i> , 2016, 408, 2309-2318.	3.7	35
51	Inductively coupled plasma- and glow discharge plasma-sector field mass spectrometry : Part II. Applications. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 727.	3.0	34
52	Quantification of silver nanoparticles taken up by single cells using inductively coupled plasma mass spectrometry in the single cell measurement mode. <i>Journal of Analytical Atomic Spectrometry</i> , 2018, 33, 1256-1263.	3.0	34
53	Arraying of Single Cells for Quantitative High Throughput Laser Ablation ICP-TOF-MS. <i>Analytical Chemistry</i> , 2019, 91, 11520-11528.	6.5	34
54	Development of a calibration and standardization procedure for LA-ICP-MS using a conventional ink-jet printer for quantification of proteins in electro- and Western-blot assays. <i>Journal of Analytical Atomic Spectrometry</i> , 2014, 29, 1282.	3.0	32

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55	Quantification of silver nanoparticle uptake and distribution within individual human macrophages by FIB/SEM slice and view. <i>Journal of Nanobiotechnology</i> , 2017, 15, 21.	9.1	31
56	Quantification of metals in single cells by LA-ICP-MS: comparison of single spot analysis and imaging. <i>Journal of Analytical Atomic Spectrometry</i> , 2018, 33, 1579-1587.	3.0	31
57	Screening of selenium containing proteins in the Tris-buffer soluble fraction of African catfish (<i>Clarias gariepinus</i>) fillets by laser ablation-ICP-MS after SDS-PAGE and electroblotting onto membranes. <i>Journal of Analytical Atomic Spectrometry</i> , 2009, 24, 775.	3.0	30
58	Biomolecular environment, quantification, and intracellular interaction of multifunctional magnetic SERS nanoprobe. <i>Analyst</i> , 2016, 141, 5096-5106.	3.5	29
59	Depth profiling with modified dc-Grimm and rf-Grimm-type glow discharges operated with high gas flow rates and coupled to a high-resolution mass spectrometer. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 382, 1965-1974.	3.7	27
60	Comparison of ICP-MS and photometric detection of an immunoassay for the determination of ochratoxin A in wine. <i>Journal of Analytical Atomic Spectrometry</i> , 2010, 25, 1567.	3.0	27
61	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.	5.0	27
62	Quantitative Imaging of Silver Nanoparticles and Essential Elements in Thin Sections of Fibroblast Multicellular Spheroids by High Resolution Laser Ablation Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2019, 91, 10197-10203.	6.5	27
63	Internal standardization of LA-ICP-MS immuno imaging via printing of universal metal spiked inks onto tissue sections. <i>Journal of Analytical Atomic Spectrometry</i> , 2016, 31, 801-808.	3.0	26
64	Glow discharge atomic spectrometry for the analysis of environmental samples ? a review. <i>Journal of Analytical Atomic Spectrometry</i> , 2000, 15, 1516-1525.	3.0	25
65	Lipocalin 24p3 is regulated by the Wnt pathway independent of regulation by iron. <i>Cancer Genetics and Cytogenetics</i> , 2007, 174, 16-23.	1.0	24
66	Multiplex LA-ICP-MS bio-imaging of brain tissue of a parkinsonian mouse model stained with metal-coded affinity-tagged antibodies and coated with indium-spiked commercial inks as internal standards. <i>Journal of Neuroscience Methods</i> , 2020, 334, 108591.	2.5	24
67	Speciation of nickel in airborne particulate matter by means of sequential extraction in a micro flow system and determination by graphite furnace atomic absorption spectrometry and inductively coupled plasma mass spectrometry. <i>Journal of Environmental Monitoring</i> , 2001, 3, 681-687.	2.1	23
68	Analysis of ZrO ₂ powders by microwave assisted digestion at high pressure and ICP atomic spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 1999, 14, 1093-1098.	3.0	21
69	A novel solid phase extraction method for pre-concentration of gadolinium and gadolinium based MRI contrast agents from the environment. <i>Journal of Analytical Atomic Spectrometry</i> , 2010, 25, 1573.	3.0	21
70	Current trends in single cell analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 6957-6961.	3.7	21
71	Speciation of organic selenium compounds by reversed-phase liquid chromatography and inductively coupled plasma mass spectrometry. Part II. Sector field instrument with high mass resolution. <i>Journal of Analytical Atomic Spectrometry</i> , 2000, 15, 371.	3.0	20
72	Methods for the discovery of low-abundance biomarkers for urinary bladder cancer in biological fluids. <i>Bioanalysis</i> , 2010, 2, 295-309.	1.5	18

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73	Combined application of a laser ablation-ICP-MS assay for screening and ESI-FTICR-MS for identification of a Cd-binding protein in <i>Spinacia oleracea</i> L. after exposure to Cd. <i>Metallomics</i> , 2011, 3, 1001.	2.4	18
74	Sample loss in asymmetric flow field-flow fractionation coupled to inductively coupled plasma-mass spectrometry of silver nanoparticles. <i>Journal of Analytical Atomic Spectrometry</i> , 2015, 30, 2214-2222.	3.0	18
75	Determination of boron isotope ratios by high-resolution continuum source molecular absorption spectrometry using graphite furnace vaporizers. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2017, 136, 116-122.	2.9	18
76	Comparison of ICP-MS with spark ablation and GDMS for direct element analysis of conductive solids. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 1995, 50, 639-654.	2.9	17
77	Determination of tributyltin in whole water matrices under the European Water Framework Directive. <i>Journal of Chromatography A</i> , 2016, 1459, 112-119.	3.7	17
78	High-resolution laser ablation inductively coupled plasma mass spectrometry used to study transport of metallic nanoparticles through collagen-rich microstructures in fibroblast multicellular spheroids. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 3497-3506.	3.7	17
79	Speciation of organic selenium compounds using reversed-phase liquid chromatography and inductively coupled plasma mass spectrometry : Part III. Application of a sector field instrument with low and high mass resolution for selenium speciation in herring gull eggs.. <i>Journal of Analytical Atomic Spectrometry</i> , 2001, 16, 135-139.	3.0	16
80	Quantification of silylated organic compounds using gas chromatography coupled to ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2002, 17, 1209-1212.	3.0	16
81	Online immunocapture ICP-MS for the determination of the metalloprotein ceruloplasmin in human serum. <i>BMC Research Notes</i> , 2018, 11, 213.	1.4	16
82	Mass Cytometry Enabling Absolute and Fast Quantification of Silver Nanoparticle Uptake at the Single Cell Level. <i>Analytical Chemistry</i> , 2019, 91, 11514-11519.	6.5	16
83	A new ion source design for inductively coupled plasma mass spectrometry (ICP-MS). <i>Journal of Analytical Atomic Spectrometry</i> , 2006, 21, 197-200.	3.0	15
84	Model Peptides Uncover the Role of the β 2-Secretase Transmembrane Sequence in Metal Ion Mediated Oligomerization. <i>Journal of the American Chemical Society</i> , 2013, 135, 19354-19361.	13.7	15
85	Tributyltin "critical pollutant in whole water samples" development of traceable measurement methods for monitoring under the European Water Framework Directive (WFD) 2000/60/EC. <i>Environmental Science and Pollution Research</i> , 2015, 22, 9589-9594.	5.3	14
86	Multifunctional Rare-Earth Element Nanocrystals for Cell Labeling and Multimodal Imaging. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 3578-3587.	5.2	14
87	Determination of Cr(VI) in ambient airborne particulate matter by a species-preserving scrubber-sampling technique. <i>Analytical and Bioanalytical Chemistry</i> , 2004, 378, 123-128.	3.7	13
88	Speciation of Chromium. , 2005, , 120-135.		12
89	Zirconium permanent modifiers for graphite furnaces used in absorption spectrometry: understanding their structure and mechanism of action. <i>Journal of Analytical Atomic Spectrometry</i> , 2018, 33, 2034-2042.	3.0	12
90	Analytical plasma ion sources for elemental mass spectrometry: where are we coming from "where are we going to?. <i>Journal of Analytical Atomic Spectrometry</i> , 2008, 23, 673.	3.0	9

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91	Ultra trace analysis of refractory metals by solid state mass spectrometry ? A comparison of GDMS, SSMS and SIMS. <i>Mikrochimica Acta</i> , 1987, 91, 302-308.	5.0	7
92	Shake, shut, and go – A fast screening of sulfur in heavy crude oils by high-resolution continuum source graphite furnace molecular absorption spectrometry via GeS molecule detection. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2019, 160, 105671.	2.9	6
93	Complementarity of molecular and elemental mass spectrometric imaging of Gadovistâ,¢ in mouse tissues. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 629-637.	3.7	6
94	Imaging of Ag NP transport through collagen-rich microstructures in fibroblast multicellular spheroids by high-resolution laser ablation inductively coupled plasma time-of-flight mass spectrometry. <i>Analyst, The</i> , 2019, 144, 4935-4942.	3.5	5
95	Cytochromesâ€”fascinating molecular machines. <i>Metallomics</i> , 2011, 3, 316.	2.4	4
96	Alan Date Memorial Award. Contributions in the field of atmospheric plasma source mass spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 1991, 6, 249.	3.0	1
97	International Symposium on GDOES for Surface Analysis, Keio University, Yokohama, Japan, November 19â€”21, 2002. <i>Journal of Analytical Atomic Spectrometry</i> , 2003, 18, 2N-2N.	3.0	1
98	Speciation of Sulfur. , 2005, , 378-407.		1
99	Mass spectrometric study of the impurity profile in Zn during reduction-distillation of ZnO with activated and inactivated Al. <i>Journal of the American Society for Mass Spectrometry</i> , 2010, 21, 1620-1623.	2.8	1
100	Real time monitoring of chemical transformations during catalytic reduction using gas source mass spectrometry: carbon/zinc carbonate hydroxide. <i>Journal of Analytical Atomic Spectrometry</i> , 2010, 25, 1378.	3.0	1
101	Determination of organic chlorine in water via AlCl derivatization and detection by high-resolution continuum source graphite furnace molecular absorption spectrometry. <i>Analytical Methods</i> , 2021, 13, 3724-3730.	2.7	1