

# Lieve Balcaen

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

3,235  
citations

126907

33  
h-index

155660

55  
g-index

71  
all docs

71  
docs citations

71  
times ranked

4338  
citing authors

#	ARTICLE	IF	CITATIONS
1	Inductively coupled plasma " Tandem mass spectrometry (ICP-MS/MS): A powerful and universal tool for the interference-free determination of (ultra)trace elements " A tutorial review. <i>Analytica Chimica Acta</i> , 2015, 894, 7-19.	5.4	275
2	Light Absorption Coefficient of CsPbBr <sub>3</sub> Perovskite Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3093-3097.	4.6	219
3	Multi-element Analysis of South African Wines by ICP-MS and Their Classification According to Geographical Origin. <i>Journal of Agricultural and Food Chemistry</i> , 2005, 53, 5060-5066.	5.2	155
4	Use of single-collector and multi-collector ICP-mass spectrometry for isotopic analysis. <i>Journal of Analytical Atomic Spectrometry</i> , 2009, 24, 863.	3.0	144
5	Overcoming spectral overlap via inductively coupled plasma-tandem mass spectrometry (ICP-MS/MS). A tutorial review. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 1660-1679.	3.0	138
6	Determination of the <sup>87</sup> Sr/ <sup>86</sup> Sr isotope ratio in USGS silicate reference materials by multi-collector ICP-MS spectrometry. <i>International Journal of Mass Spectrometry</i> , 2005, 242, 251-255.	1.5	103
7	Accurate determination of S in organic matrices using isotope dilution ICP-MS/MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 33-39.	3.0	88
8	Accurate determination of ultra-trace levels of Ti in blood serum using ICP-MS/MS. <i>Analytica Chimica Acta</i> , 2014, 809, 1-8.	5.4	86
9	Alginate biopolymers: Counteracting the impact of superabsorbent polymers on mortar strength. <i>Construction and Building Materials</i> , 2016, 110, 169-174.	7.2	86
10	Enzymatic mineralization of gellan gum hydrogel for bone tissue-engineering applications and its enhancement by polydopamine. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2014, 8, 906-918.	2.7	84
11	Determination of isotope ratios of metals (and metalloids) by means of inductively coupled plasma-mass spectrometry for provenancing purposes " A review. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2010, 65, 769-786.	2.9	77
12	Enzymatic Mineralization of Hydrogels for Bone Tissue Engineering by Incorporation of Alkaline Phosphatase. <i>Macromolecular Bioscience</i> , 2012, 12, 1077-1089.	4.1	75
13	Use of the bromine isotope ratio in HPLC-ICP-MS and HPLC-ESI-MS analysis of a new drug in development. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 390, 1717-1729.	3.7	66
14	Comparison of laser ablation-inductively coupled plasma-mass spectrometry and micro-X-ray fluorescence spectrometry for elemental imaging in <i>Daphnia magna</i> . <i>Analytica Chimica Acta</i> , 2010, 664, 19-26.	5.4	66
15	Interference-free determination of ultra-trace concentrations of arsenic and selenium using methyl fluoride as a reaction gas in ICP-MS/MS. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 919-929.	3.7	63
16	The Cellular Interactions of PEGylated Gold Nanoparticles: Effect of PEGylation on Cellular Uptake and Cytotoxicity. <i>Particle and Particle Systems Characterization</i> , 2014, 31, 794-800.	2.3	62
17	Three-dimensional elemental imaging by means of synchrotron radiation micro-XRF: developments and applications in environmental chemistry. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 390, 267-271.	3.7	59
18	Injectable self-gelling composites for bone tissue engineering based on gellan gum hydrogel enriched with different bioglasses. <i>Biomedical Materials (Bristol)</i> , 2014, 9, 045014.	3.3	56

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19	Tandem ICP-mass spectrometry for Sr isotopic analysis without prior Rb/Sr separation. <i>Journal of Analytical Atomic Spectrometry</i> , 2016, 31, 303-310.	3.0	55
20	Capabilities of inductively coupled plasma mass spectrometry for the measurement of Fe isotope ratios. <i>Journal of Analytical Atomic Spectrometry</i> , 2002, 17, 933-943.	3.0	53
21	ISOTOPES ON THE BEACH, PART 1: STRONTIUM ISOTOPE RATIOS AS A PROVENANCE INDICATOR FOR LIME RAW MATERIALS USED IN ROMAN GLASS-MAKING. <i>Archaeometry</i> , 2013, 55, 214-234.	1.3	52
22	Potential of Methyl Fluoride as a Universal Reaction Gas to Overcome Spectral Interference in the Determination of Ultratrace Concentrations of Metals in Biofluids Using Inductively Coupled Plasma-Tandem Mass Spectrometry. <i>Analytical Chemistry</i> , 2014, 86, 7969-7977.	6.5	50
23	Mass discrimination in dynamic reaction cell (DRC)-ICP-mass spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2003, 18, 1060.	3.0	48
24	Generation of composites for bone tissue-engineering applications consisting of gellan gum hydrogels mineralized with calcium and magnesium phosphate phases by enzymatic means. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016, 10, 938-954.	2.7	47
25	Laser ablation-tandem ICP-mass spectrometry (LA-ICP-MS/MS) for direct Sr isotopic analysis of solid samples with high Rb/Sr ratios. <i>Journal of Analytical Atomic Spectrometry</i> , 2016, 31, 464-472.	3.0	46
26	Regional geodynamic context for the Mesoproterozoic Kibara Belt (KIB) and the Karagwe-Ankole Belt: Evidence from geochemistry and isotopes in the KIB. <i>Precambrian Research</i> , 2015, 264, 82-97.	2.7	41
27	Characterization of SiO <sub>2</sub> nanoparticles by single particle-inductively coupled plasma-tandem mass spectrometry (SP-ICP-MS/MS). <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 2140-2152.	3.0	40
28	Acceleration of gelation and promotion of mineralization of chitosan hydrogels by alkaline phosphatase. <i>International Journal of Biological Macromolecules</i> , 2013, 56, 122-132.	7.5	39
29	ISOTOPES ON THE BEACH, PART 2: NEODYMIUM ISOTOPIC ANALYSIS FOR THE PROVENANCING OF ROMAN GLASS-MAKING. <i>Archaeometry</i> , 2013, 55, 449-464.	1.3	39
30	Pectin-bioactive glass self-gelling, injectable composites with high antibacterial activity. <i>Carbohydrate Polymers</i> , 2019, 205, 427-436.	10.2	39
31	Poly(lactide) nanofibers with hydroxyapatite as growth substrates for osteoblast-like cells. <i>Journal of Biomedical Materials Research - Part A</i> , 2014, 102, 3918-3930.	4.0	36
32	Novel self-gelling injectable hydrogel/ $\alpha$ -tricalcium phosphate composites for bone regeneration: Physicochemical and microcomputer tomographical characterization. <i>Journal of Biomedical Materials Research - Part A</i> , 2018, 106, 822-828.	4.0	36
33	Laser ablation-inductively coupled plasma-dynamic reaction cell-mass spectrometry (LA-ICP-DRC-MS) for the determination of Pt, Pd and Rh in Pb buttons obtained by fire assay of platiniferous ores. <i>Journal of Analytical Atomic Spectrometry</i> , 2004, 19, 632.	3.0	35
34	Determination of ultra-trace amounts of prosthesis-related metals in whole blood using volumetric absorptive micro-sampling and tandem ICP-MS. <i>Analytica Chimica Acta</i> , 2016, 941, 1-9.	5.4	33
35	Hyphenation of reverse-phase HPLC and ICP-MS for metabolite profiling—application to a novel antituberculosis compound as a case study. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 389, 777-786.	3.7	32
36	Bioinspired, biomimetic, double-enzymatic mineralization of hydrogels for bone regeneration with calcium carbonate. <i>Materials Letters</i> , 2017, 190, 13-16.	2.6	32

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37	Novel injectable gellan gum hydrogel composites incorporating Zn- and Sr-enriched bioactive glass microparticles: High-resolution X-ray microcomputed tomography, antibacterial and in vitro testing. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018, 12, 1313-1326.	2.7	31
38	Waterborne versus Dietary Zinc Accumulation and Toxicity in <i>Daphnia magna</i> : a Synchrotron Radiation Based X-ray Fluorescence Imaging Approach. <i>Environmental Science &amp; Technology</i> , 2012, 46, 1178-1184.	10.0	30
39	Determination of the total drug-related chlorine and bromine contents in human blood plasma using high performance liquid chromatography-tandem ICP-mass spectrometry (HPLC-ICP-MS/MS). <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016, 124, 112-119.	2.8	29
40	Novel injectable, self-gelling hydrogel-microparticle composites for bone regeneration consisting of gellan gum and calcium and magnesium carbonate microparticles. <i>Biomedical Materials (Bristol)</i> , 2016, 11, 065011.	3.3	27
41	High-performance liquid chromatography coupled to inductively coupled plasma Mass spectrometry (HPLC-ICP-MS) for quantitative metabolite profiling of non-metal drugs. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 104, 118-134.	11.4	27
42	Development of a method for assessing the relative contribution of waterborne and dietary exposure to zinc bioaccumulation in <i>Daphnia magna</i> by using isotopically enriched tracers and ICP-MS detection. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 390, 555-569.	3.7	26
43	A comparison between HPLC-dynamic reaction cell-ICP-MS and HPLC-sector field-ICP-MS for the detection of glutathione-trapped reactive drug metabolites using clozapine as a model compound. <i>Journal of Analytical Atomic Spectrometry</i> , 2010, 25, 419.	3.0	24
44	Development and validation of a novel quantification approach for gradient elution reversed phase high-performance liquid chromatography coupled to tandem ICP-mass spectrometry (RP-HPLC-ICP-MS/MS) and its application to diclofenac and its related compounds. <i>Analytica Chimica Acta</i> , 2017, 974, 43-53.	5.4	24
45	Application of laser ablation inductively coupled plasma (dynamic reaction cell) mass spectrometry for depth profiling analysis of high-tech industrial materials. <i>Journal of Analytical Atomic Spectrometry</i> , 2005, 20, 417.	3.0	23
46	Composites of gellan gum hydrogel enzymatically mineralized with calcium-zinc phosphate for bone regeneration with antibacterial activity. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017, 11, 1610-1618.	2.7	23
47	Isotope ratio mapping by means of laser ablation-single collector-ICP-mass spectrometry: Zn tracer studies in thin sections of <i>Daphnia magna</i> . <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 1005.	3.0	22
48	Unveiling the colour palette of Arraiolos carpets: Material study of carpets from the 17th to 19th century period by HPLC-DAD-MS and ICP-MS. <i>Journal of Cultural Heritage</i> , 2014, 15, 292-299.	3.3	22
49	Enrichment of enzymatically mineralized gellan gum hydrogels with phlorotannin-rich <i>Ecklonia cava</i> extract Seanol to endow antibacterial properties and promote mineralization. <i>Biomedical Materials (Bristol)</i> , 2016, 11, 045015.	3.3	21
50	Development, validation and application of an inductively coupled plasma mass spectrometry method to determine cobalt in metal-on-metal prosthesis patients using volumetric absorptive microsampling. <i>Talanta</i> , 2020, 208, 120055.	5.5	21
51	Mineral Concentrations in Hair of Belgian Elementary School Girls: Reference Values and Relationship with Food Consumption Frequencies. <i>Biological Trace Element Research</i> , 2012, 150, 56-67.	3.5	20
52	Synergy between Intraperitoneal Aerosolization (PIPAC) and Cancer Nanomedicine: Cisplatin-Loaded Polyarginine-Hyaluronic Acid Nanocarriers Efficiently Eradicate Peritoneal Metastasis of Advanced Human Ovarian Cancer. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 29024-29036.	8.0	19
53	Mineralization of gellan gum hydrogels with calcium and magnesium carbonates by alternate soaking in solutions of calcium/magnesium and carbonate ion solutions. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018, 12, 1825-1834.	2.7	18
54	Magnesium-enhanced enzymatically mineralized platelet-rich fibrin for bone regeneration applications. <i>Biomedical Materials (Bristol)</i> , 2013, 8, 055001.	3.3	17

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55	Multi-element analysis of a thermographic material by means of solid sampling-electrothermal vaporization-inductively coupled plasma mass spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2002, 57, 495-511.	2.9	16
56	Liposomes as an alternative delivery system for investigating dietary metal toxicity to <i>Daphnia magna</i> . <i>Aquatic Toxicology</i> , 2011, 105, 661-668.	4.0	16
57	Tailoring Cellular Uptake of Gold Nanoparticles Via the Hydrophilic-Hydrophobic Ratio of their (Co)polymer Coating. <i>Advanced Functional Materials</i> , 2015, 25, 3433-3439.	14.9	16
58	Hair Minerals and Metabolic Health in Belgian Elementary School Girls. <i>Biological Trace Element Research</i> , 2013, 151, 335-343.	3.5	13
59	Comparative evaluation of ICP sample introduction systems to be used in the metabolite profiling of chlorine-containing pharmaceuticals via HPLC-ICP-MS. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2018, 153, 135-144.	2.8	12
60	Enhancement of Biomimetic Enzymatic Mineralization of Gellan Gum Polysaccharide Hydrogels by Plant-Derived Gallotannins. <i>International Journal of Molecular Sciences</i> , 2020, 21, 2315.	4.1	12
61	The use of liposomes to differentiate between the effects of nickel accumulation and altered food quality in <i>Daphnia magna</i> exposed to dietary nickel. <i>Aquatic Toxicology</i> , 2012, 109, 80-89.	4.0	11
62	Determination of ultra-trace amounts of Fe in AgNO <sub>3</sub> solutions by means of isotope dilution analysis applying an inductively coupled plasma mass spectrometer equipped with a dynamic reaction cell. <i>Analytical and Bioanalytical Chemistry</i> , 2003, 377, 1020-1025.	3.7	10
63	Composites of polyvinyl alcohol (PVA) hydrogel and calcium and magnesium phosphate formed by enzymatic functionalization. <i>Materials Letters</i> , 2014, 137, 62-67.	2.6	10
64	Geochemistry and isotopic evolution of the central African Domes, Bangweulu and Irumide regions: Evidence for cryptic Archean sources and a Paleoproterozoic continental arc. <i>Journal of African Earth Sciences</i> , 2014, 100, 145-163.	2.0	8
65	Cross-Sectional Relationship Between Chronic Stress and Mineral Concentrations in Hair of Elementary School Girls. <i>Biological Trace Element Research</i> , 2013, 153, 41-49.	3.5	7
66	Gold/titania composites: An X-ray absorption spectroscopy study on the influence of the reduction method. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 110, 45-50.	2.9	7
67	Quantitative Metabolite Profiling of an Amino Group Containing Pharmaceutical in Human Plasma via Precolumn Derivatization and High-Performance Liquid Chromatography-Inductively Coupled Plasma Mass Spectrometry. <i>Analytical Chemistry</i> , 2017, 89, 1907-1915.	6.5	7
68	The use of dynamic reaction cell ICP mass spectrometry to facilitate Rb-Sr age determination. <i>Geological Society Special Publication</i> , 2003, 220, 173-181.	1.3	3
69	A pre-column derivatization method allowing quantitative metabolite profiling of carboxyl and phenolic hydroxyl group containing pharmaceuticals in human plasma via liquid chromatography-inductively coupled plasma-tandem mass spectrometry (LC-ICP-MS/MS). <i>Journal of Analytical Atomic Spectrometry</i> , 2018, 33, 274-282.	3.0	3
70	4. Inductively coupled plasma-mass spectrometry. , 2019, , 247-305.		0