List of Publications by Year in descending order

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ANDREAS RIEDO

#	Article	IF	CITATIONS
1	Improved limit of detection of a high-resolution fs-LIMS instrument through mass-selective beam blanking. International Journal of Mass Spectrometry, 2022, 474, 116803.	1.5	1
2	Multiwavelength Ablation/Ionization and Mass Spectrometric Analysis of 1.88 Ga Gunflint Chert. Astrobiology, 2022, 22, 369-386.	3.0	4
3	Toward Detecting Polycyclic Aromatic Hydrocarbons on Planetary Objects with ORIGIN. Planetary Science Journal, 2022, 3, 43.	3.6	5
4	Automated, 3â€D and Subâ€Micron Accurate Ablationâ€Volume Determination by Inverse Molding and Xâ€Ray Computed Tomography. Advanced Science, 2022, 9, e2200136.	11.2	6
5	High Mass Resolution fs-LIMS Imaging and Manifold Learning Reveal Insight Into Chemical Diversity of the 1.88ÂGa Gunflint Chert. Frontiers in Space Technologies, 2022, 3, .	1.4	1
6	Correlation Network Analysis for Amino Acid Identification in Soil Samples With the ORIGIN Space-Prototype Instrument. Frontiers in Astronomy and Space Sciences, 2022, 9, .	2.8	2
7	The ORIGIN Space Instrument for Detecting Biosignatures and Habitability Indicators on a Venus Life Finder Mission. Aerospace, 2022, 9, 312.	2.2	8
8	Determination of the microscopic mineralogy of inclusion in an amygdaloidal pillow basalt by fs-LIMS. Journal of Analytical Atomic Spectrometry, 2021, 36, 80-91.	3.0	7
9	Taxonomic and functional analyses of intact microbial communities thriving in extreme, astrobiology-relevant, anoxic sites. Microbiome, 2021, 9, 50.	11.1	14
10	Description of the Mass Spectrometer for the Jupiter Icy Moons Explorer Mission. , 2021, , .		12
11	Investigation of the Surface Composition by Laser Ablation/Ionization Mass Spectrometry. , 2021, , .		4
12	Current Progress in Femtosecond Laser Ablation/Ionisation Time-of-Flight Mass Spectrometry. Applied Sciences (Switzerland), 2021, 11, 2562.	2.5	16
13	Detecting the elemental and molecular signatures of life: Laser-based mass spectrometry technologies. , 2021, 53, .		3
14	Improved plasma stoichiometry recorded by laser ablation ionization mass spectrometry using a doubleâ€pulse femtosecond laser ablation ion source. Rapid Communications in Mass Spectrometry, 2021, 35, e9094.	1.5	4
15	Characterization of femtosecond laser ablation processes on as-deposited SnAg solder alloy using laser ablation ionization mass spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 180, 106145.	2.9	2
16	Quantitative elemental analysis with the LMS-GT; a next-generation LIMS-TOF instrument. International Journal of Mass Spectrometry, 2021, 470, 116662.	1.5	4
17	On Topological Analysis of fs-LIMS Data. Implications for in Situ Planetary Mass Spectrometry. Frontiers in Artificial Intelligence, 2021, 4, 668163.	3.4	7
18	Chemical identification of microfossils from the 1.88â€Ga Gunflint chert: Towards empirical biosignatures using laser ablation ionization mass spectrometer. Journal of Chemometrics, 2021, 35, e3370.	1.3	7

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19	The chemical composition and homogeneity of the Allende matrix. Planetary and Space Science, 2021, 204, 105251.	1.7	9
20	Laser Ablation Ionization Mass Spectrometry: A Space Prototype System for In Situ Sulphur Isotope Fractionation Analysis on Planetary Surfaces. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	8
21	Three-Dimensional Composition Analysis of SnAg Solder Bumps Using Ultraviolet Femtosecond Laser Ablation Ionization Mass Spectrometry. Analytical Chemistry, 2020, 92, 1355-1362.	6.5	9
22	Chemical analysis of a lunar meteorite by laser ablation mass spectrometry. Planetary and Space Science, 2020, 182, 104816.	1.7	9
23	Isotope abundance ratio measurements using femtosecond laser ablation ionization mass spectrometry. Journal of Mass Spectrometry, 2020, 55, e4660.	1.6	10
24	The Detection of Elemental Signatures of Microbes in Martian Mudstone Analogs Using High Spatial Resolution Laser Ablation Ionization Mass Spectrometry. Astrobiology, 2020, 20, 1224-1235.	3.0	15
25	Biosignature Analysis of Mars Soil Analogs from the Atacama Desert: Challenges and Implications for Future Missions to Mars. Astrobiology, 2020, 20, 766-784.	3.0	17
26	ORIGIN: a novel and compact Laser Desorption – Mass Spectrometry system for sensitive in situ detection of amino acids on extraterrestrial surfaces. Scientific Reports, 2020, 10, 9641.	3.3	24
27	Survival of the Halophilic Archaeon Halovarius luteus after Desiccation, Simulated Martian UV Radiation and Vacuum in Comparison to Bacillus atrophaeus. Origins of Life and Evolution of Biospheres, 2020, 50, 157-173.	1.9	6
28	UV postâ€ionization laser ablation ionization mass spectrometry for improved nmâ€depth profiling resolution on Cr/Ni reference standard. Rapid Communications in Mass Spectrometry, 2020, 34, e8803.	1.5	16
29	The LMS-GT instrument $\hat{a} \in $ a new perspective for quantification with the LIMS-TOF measurement technique. Journal of Analytical Atomic Spectrometry, 2019, 34, 2061-2073.	3.0	15
30	Detectability of biosignatures in a low-biomass simulation of martian sediments. Scientific Reports, 2019, 9, 9706.	3.3	19
31	Novel 2D binning approach for advanced LIMS depth profiling analysis. Journal of Analytical Atomic Spectrometry, 2019, 34, 1564-1570.	3.0	9
32	Microbial Markers Profile in Anaerobic Mars Analogue Environments Using the LDChip (Life Detector) Tj ETQq0 0 7, 365.	0 rgBT /O 3.6	verlock 10 Tf 16
33	Review—Laser Ablation Ionization Mass Spectrometry (LIMS) for Analysis of Electrodeposited Cu Interconnects. Journal of the Electrochemical Society, 2019, 166, D3190-D3199.	2.9	17
34	A method for improvement of mass resolution and isotope accuracy for laser ablation timeâ€ofâ€flight mass spectrometers. Journal of Chemometrics, 2019, 33, e3081.	1.3	9
35	(Invited) Towards Spatially Resolved Chemical Analysis of Sn/Ag Solder Bumps By Means of Laser Ablation Ionization Mass Spectrometry (LIMS). ECS Meeting Abstracts, 2019, , .	0.0	0
36	Combining Anisotropic Etching and PDMS Casting for Three-Dimensional Analysis of Laser Ablation Processes. Analytical Chemistry, 2018, 90, 2692-2700.	6.5	16

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37	Towards femtosecond laser ablation ionization mass spectrometric approaches for chemical depth-profiling analysis of lead-free Sn solder bumps with minimized side-wall contributions. Journal of Analytical Atomic Spectrometry, 2018, 33, 283-293.	3.0	13
38	Insights into Laser Ablation Processes of Heterogeneous Samples: Toward Analysis of Through-Silicon-Vias. Analytical Chemistry, 2018, 90, 6666-6674.	6.5	9
39	Depth Profiling and Cross-Sectional Laser Ablation Ionization Mass Spectrometry Studies of Through-Silicon-Vias. Analytical Chemistry, 2018, 90, 5179-5186.	6.5	19
40	Scattering of low-energetic atoms and molecules from a boron-doped CVD diamond surface. Applied Surface Science, 2018, 427, 427-433.	6.1	1
41	Beyond Chloride Brines: Variable Metabolomic Responses in the Anaerobic Organism Yersinia intermedia MASE-LG-1 to NaCl and MgSO4 at Identical Water Activity. Frontiers in Microbiology, 2018, 9, 335.	3.5	7
42	Chemical and Optical Identification of Micrometer-Sized 1.9 Billion-Year-Old Fossils by Combining a Miniature Laser Ablation Ionization Mass Spectrometry System with an Optical Microscope. Astrobiology, 2018, 18, 1071-1080.	3.0	35
43	EGT—A sensitive timeâ€ofâ€flight mass spectrometer for multielement isotope gas analysis. Journal of Mass Spectrometry, 2018, 53, 1036-1045.	1.6	2
44	Mass spectrometric analysis of the Mg plasma produced by double-pulse femtosecond laser irradiation. Journal of Analytical Atomic Spectrometry, 2018, 33, 1292-1303.	3.0	17
45	Toward Three-Dimensional Chemical Imaging of Ternary Cu–Sn–Pb Alloys Using Femtosecond Laser Ablation/Ionization Mass Spectrometry. Analytical Chemistry, 2017, 89, 1632-1641.	6.5	47
46	High-speed microstrip multi-anode multichannel plate detector system. Review of Scientific Instruments, 2017, 88, 045114.	1.3	35
47	Improved detection sensitivity for heavy trace elements using a miniature laser ablation ionisation mass spectrometer. Journal of Analytical Atomic Spectrometry, 2017, 32, 2182-2188.	3.0	19
48	Fully automatic and precise data analysis developed for timeâ€ofâ€flight mass spectrometry. Journal of Mass Spectrometry, 2017, 52, 580-590.	1.6	38
49	Quantitative measurement of the chemical composition of geological standards with a miniature laser ablation/ionization mass spectrometer designed for <i>in situ</i> application in space research. Measurement Science and Technology, 2016, 27, 035904.	2.6	32
50	Towards matrixâ€free femtosecondâ€laser desorption mass spectrometry for <i>in situ</i> space research. Rapid Communications in Mass Spectrometry, 2016, 30, 1031-1036.	1.5	25
51	A novel approach to measure photodesorption rates of interstellar ice analogues. Astronomy and Astrophysics, 2016, 596, A72.	5.1	24
52	Laser Ablation/Ionisation Mass Spectrometry: Sensitive and Quantitative Chemical Depth Profiling of Solid Materials. Chimia, 2016, 70, 268.	0.6	18
53	Towards Structural Analysis of Polymeric Contaminants in Electrodeposited Cu films. Electrochimica Acta, 2016, 199, 394-402.	5.2	23
54	Mineralogical determination <i>in situ</i> of a highly heterogeneous material using a miniaturized laser ablation mass spectrometer with high spatial resolution. International Journal of Astrobiology, 2016, 15, 133-146.	1.6	18

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55	High depth-resolution laser ablation chemical analysis of additive-assisted Cu electroplating for microchip architectures. Journal of Analytical Atomic Spectrometry, 2015, 30, 2371-2374.	3.0	21
56	High-Resolution Chemical Depth Profiling of Solid Material Using a Miniature Laser Ablation/Ionization Mass Spectrometer. Analytical Chemistry, 2015, 87, 2037-2041.	6.5	54
57	Chemical Composition of Micrometer-Sized Filaments in an Aragonite Host by a Miniature Laser Ablation/Ionization Mass Spectrometer. Astrobiology, 2015, 15, 669-682.	3.0	44
58	CAMAM: A Miniature Laser Ablation Ionisation Mass Spectrometer and Microscopeâ€Camera System for <i>In Situ</i> Investigation of the Composition and Morphology of Extraterrestrial Materials. Geostandards and Geoanalytical Research, 2014, 38, 441-466.	3.1	34
59	Probing the Allende meteorite with a miniature laser-ablation mass analyser for space application. Planetary and Space Science, 2014, 101, 196-209.	1.7	41
60	Self-supporting CVD diamond charge state conversion surfaces for high resolution imaging of low-energy neutral atoms in space plasmas. Applied Surface Science, 2014, 313, 293-303.	6.1	2
61	Coupling of LMS with a fs-laser ablation ion source: elemental and isotope composition measurements. Journal of Analytical Atomic Spectrometry, 2013, 28, 1256.	3.0	73
62	Highly accurate isotope composition measurements by a miniature laser ablation mass spectrometer designed for in situ investigations on planetary surfaces. Planetary and Space Science, 2013, 87, 1-13.	1.7	55
63	Performance evaluation of a miniature laser ablation timeâ€ofâ€flight mass spectrometer designed for <i>in situ</i> investigations in planetary space research. Journal of Mass Spectrometry, 2013, 48, 1-15.	1.6	76
64	Performance evaluation of a miniature laser ablation timeâ€ofâ€flight mass spectrometer designed for <i>in situ</i> investigations in planetary space research. Journal of Mass Spectrometry, 2013, 48, i.	1.6	55
65	Test Facility to Study Surface-Interaction Processes for Particle Detection in Space. Journal of Spacecraft and Rockets, 2013, 50, 402-410.	1.9	5
66	On Applicability of a Miniaturised Laser Ablation Time of Flight Mass Spectrometer for Trace Elements Measurements. International Journal of Spectroscopy, 2012, 2012, 1-14.	1.6	15
67	On the surface characterization of an Al2O3 charge state conversion surface using ion scattering and atomic force microscope measurements. Applied Surface Science, 2012, 258, 7292-7298.	6.1	4
68	Optimization of mass spectrometers using the adaptive particle swarm algorithm. Journal of Mass Spectrometry, 2011, 46, 1143-1151.	1.6	20
69	Effect of long duration UV irradiation on diamondlike carbon surfaces in the presence of a hydrocarbon gaseous atmosphere. Journal of Applied Physics, 2010, 108, .	2.5	12