

Andreas Riedo

List of Publications by Year in descending order

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69
papers

1,226
citations

448610

19
h-index

488211

31
g-index

76
all docs

76
docs citations

76
times ranked

551
citing authors

#	ARTICLE	IF	CITATIONS
1	Improved limit of detection of a high-resolution fs-LIMS instrument through mass-selective beam blanking. <i>International Journal of Mass Spectrometry</i> , 2022, 474, 116803.	0.7	1
2	Multiwavelength Ablation/Ionization and Mass Spectrometric Analysis of 1.88 Ga Gunflint Chert. <i>Astrobiology</i> , 2022, 22, 369-386.	1.5	4
3	Toward Detecting Polycyclic Aromatic Hydrocarbons on Planetary Objects with ORIGIN. <i>Planetary Science Journal</i> , 2022, 3, 43.	1.5	5
4	Automated, 3- μ m and Sub- μ m Accurate Ablation-Volume Determination by Inverse Molding and X-Ray Computed Tomography. <i>Advanced Science</i> , 2022, 9, e2200136.	5.6	6
5	High Mass Resolution fs-LIMS Imaging and Manifold Learning Reveal Insight Into Chemical Diversity of the 1.88 Ga Gunflint Chert. <i>Frontiers in Space Technologies</i> , 2022, 3, .	0.8	1
6	Correlation Network Analysis for Amino Acid Identification in Soil Samples With the ORIGIN Space-Prototype Instrument. <i>Frontiers in Astronomy and Space Sciences</i> , 2022, 9, .	1.1	2
7	The ORIGIN Space Instrument for Detecting Biosignatures and Habitability Indicators on a Venus Life Finder Mission. <i>Aerospace</i> , 2022, 9, 312.	1.1	8
8	Determination of the microscopic mineralogy of inclusion in an amygdaloidal pillow basalt by fs-LIMS. <i>Journal of Analytical Atomic Spectrometry</i> , 2021, 36, 80-91.	1.6	7
9	Taxonomic and functional analyses of intact microbial communities thriving in extreme, astrobiology-relevant, anoxic sites. <i>Microbiome</i> , 2021, 9, 50.	4.9	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. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2562.	1.3	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 double-pulse femtosecond laser ablation ion source. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e9094.	0.7	4
15	Characterization of femtosecond laser ablation processes on as-deposited SnAg solder alloy using laser ablation ionization mass spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2021, 180, 106145.	1.5	2
16	Quantitative elemental analysis with the LMS-GT; a next-generation LIMS-TOF instrument. <i>International Journal of Mass Spectrometry</i> , 2021, 470, 116662.	0.7	4
17	On Topological Analysis of fs-LIMS Data. Implications for in Situ Planetary Mass Spectrometry. <i>Frontiers in Artificial Intelligence</i> , 2021, 4, 668163.	2.0	7
18	Chemical identification of microfossils from the 1.88 Ga Gunflint chert: Towards empirical biosignatures using laser ablation ionization mass spectrometer. <i>Journal of Chemometrics</i> , 2021, 35, e3370.	0.7	7

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19	The chemical composition and homogeneity of the Allende matrix. <i>Planetary and Space Science</i> , 2021, 204, 105251.	0.9	9
20	Laser Ablation Ionization Mass Spectrometry: A Space Prototype System for In Situ Sulphur Isotope Fractionation Analysis on Planetary Surfaces. <i>Frontiers in Astronomy and Space Sciences</i> , 2021, 8, .	1.1	8
21	Three-Dimensional Composition Analysis of SnAg Solder Bumps Using Ultraviolet Femtosecond Laser Ablation Ionization Mass Spectrometry. <i>Analytical Chemistry</i> , 2020, 92, 1355-1362.	3.2	9
22	Chemical analysis of a lunar meteorite by laser ablation mass spectrometry. <i>Planetary and Space Science</i> , 2020, 182, 104816.	0.9	9
23	Isotope abundance ratio measurements using femtosecond laser ablation ionization mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2020, 55, e4660.	0.7	10
24	The Detection of Elemental Signatures of Microbes in Martian Mudstone Analogs Using High Spatial Resolution Laser Ablation Ionization Mass Spectrometry. <i>Astrobiology</i> , 2020, 20, 1224-1235.	1.5	15
25	Biosignature Analysis of Mars Soil Analogs from the Atacama Desert: Challenges and Implications for Future Missions to Mars. <i>Astrobiology</i> , 2020, 20, 766-784.	1.5	17
26	ORIGIN: a novel and compact Laser Desorption " Mass Spectrometry system for sensitive in situ detection of amino acids on extraterrestrial surfaces. <i>Scientific Reports</i> , 2020, 10, 9641.	1.6	24
27	Survival of the Halophilic Archaeon <i>Halovarius luteus</i> after Desiccation, Simulated Martian UV Radiation and Vacuum in Comparison to <i>Bacillus atrophaeus</i> . <i>Origins of Life and Evolution of Biospheres</i> , 2020, 50, 157-173.	0.8	6
28	UV post-ionization laser ablation ionization mass spectrometry for improved nm-depth profiling resolution on Cr/Ni reference standard. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8803.	0.7	16
29	The LMS-GT instrument " a new perspective for quantification with the LIMS-TOF measurement technique. <i>Journal of Analytical Atomic Spectrometry</i> , 2019, 34, 2061-2073.	1.6	15
30	Detectability of biosignatures in a low-biomass simulation of martian sediments. <i>Scientific Reports</i> , 2019, 9, 9706.	1.6	19
31	Novel 2D binning approach for advanced LIMS depth profiling analysis. <i>Journal of Analytical Atomic Spectrometry</i> , 2019, 34, 1564-1570.	1.6	9
32	Microbial Markers Profile in Anaerobic Mars Analogue Environments Using the LDChip (Life Detector) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 7, 365.	1.6	16
33	Review" Laser Ablation Ionization Mass Spectrometry (LIMS) for Analysis of Electrodeposited Cu Interconnects. <i>Journal of the Electrochemical Society</i> , 2019, 166, D3190-D3199.	1.3	17
34	A method for improvement of mass resolution and isotope accuracy for laser ablation time-of-flight mass spectrometers. <i>Journal of Chemometrics</i> , 2019, 33, e3081.	0.7	9
35	(Invited) Towards Spatially Resolved Chemical Analysis of Sn/Ag Solder Bumps By Means of Laser Ablation Ionization Mass Spectrometry (LIMS). <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
36	Combining Anisotropic Etching and PDMS Casting for Three-Dimensional Analysis of Laser Ablation Processes. <i>Analytical Chemistry</i> , 2018, 90, 2692-2700.	3.2	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. <i>Journal of Analytical Atomic Spectrometry</i> , 2018, 33, 283-293.	1.6	13
38	Insights into Laser Ablation Processes of Heterogeneous Samples: Toward Analysis of Through-Silicon-Vias. <i>Analytical Chemistry</i> , 2018, 90, 6666-6674.	3.2	9
39	Depth Profiling and Cross-Sectional Laser Ablation Ionization Mass Spectrometry Studies of Through-Silicon-Vias. <i>Analytical Chemistry</i> , 2018, 90, 5179-5186.	3.2	19
40	Scattering of low-energetic atoms and molecules from a boron-doped CVD diamond surface. <i>Applied Surface Science</i> , 2018, 427, 427-433.	3.1	1
41	Beyond Chloride Brines: Variable Metabolomic Responses in the Anaerobic Organism <i>Yersinia intermedia</i> MASE-LG-1 to NaCl and MgSO ₄ at Identical Water Activity. <i>Frontiers in Microbiology</i> , 2018, 9, 335.	1.5	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. <i>Astrobiology</i> , 2018, 18, 1071-1080.	1.5	35
43	EGTâ€”A sensitive timeâ€”ofâ€”flight mass spectrometer for multielement isotope gas analysis. <i>Journal of Mass Spectrometry</i> , 2018, 53, 1036-1045.	0.7	2
44	Mass spectrometric analysis of the Mg plasma produced by double-pulse femtosecond laser irradiation. <i>Journal of Analytical Atomic Spectrometry</i> , 2018, 33, 1292-1303.	1.6	17
45	Toward Three-Dimensional Chemical Imaging of Ternary Cuâ€”Snâ€”Pb Alloys Using Femtosecond Laser Ablation/Ionization Mass Spectrometry. <i>Analytical Chemistry</i> , 2017, 89, 1632-1641.	3.2	47
46	High-speed microstrip multi-anode multichannel plate detector system. <i>Review of Scientific Instruments</i> , 2017, 88, 045114.	0.6	35
47	Improved detection sensitivity for heavy trace elements using a miniature laser ablation ionisation mass spectrometer. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 2182-2188.	1.6	19
48	Fully automatic and precise data analysis developed for timeâ€”ofâ€”flight mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2017, 52, 580-590.	0.7	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. <i>Measurement Science and Technology</i> , 2016, 27, 035904.	1.4	32
50	Towards matrixâ€”free femtosecondâ€”laser desorption mass spectrometry for <i>in situ</i> space research. <i>Rapid Communications in Mass Spectrometry</i> , 2016, 30, 1031-1036.	0.7	25
51	A novel approach to measure photodesorption rates of interstellar ice analogues. <i>Astronomy and Astrophysics</i> , 2016, 596, A72.	2.1	24
52	Laser Ablation/Ionisation Mass Spectrometry: Sensitive and Quantitative Chemical Depth Profiling of Solid Materials. <i>Chimia</i> , 2016, 70, 268.	0.3	18
53	Towards Structural Analysis of Polymeric Contaminants in Electrodeposited Cu films. <i>Electrochimica Acta</i> , 2016, 199, 394-402.	2.6	23
54	Mineralogical determination <i>in situ</i> of a highly heterogeneous material using a miniaturized laser ablation mass spectrometer with high spatial resolution. <i>International Journal of Astrobiology</i> , 2016, 15, 133-146.	0.9	18

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55	High depth-resolution laser ablation chemical analysis of additive-assisted Cu electroplating for microchip architectures. <i>Journal of Analytical Atomic Spectrometry</i> , 2015, 30, 2371-2374.	1.6	21
56	High-Resolution Chemical Depth Profiling of Solid Material Using a Miniature Laser Ablation/Ionization Mass Spectrometer. <i>Analytical Chemistry</i> , 2015, 87, 2037-2041.	3.2	54
57	Chemical Composition of Micrometer-Sized Filaments in an Aragonite Host by a Miniature Laser Ablation/Ionization Mass Spectrometer. <i>Astrobiology</i> , 2015, 15, 669-682.	1.5	44
58	CAMAM: A Miniature Laser Ablation Ionisation Mass Spectrometer and Microscopeâ€œCamera System for <i>In Situ</i> Investigation of the Composition and Morphology of Extraterrestrial Materials. <i>Geostandards and Geoanalytical Research</i> , 2014, 38, 441-466.	1.7	34
59	Probing the Allende meteorite with a miniature laser-ablation mass analyser for space application. <i>Planetary and Space Science</i> , 2014, 101, 196-209.	0.9	41
60	Self-supporting CVD diamond charge state conversion surfaces for high resolution imaging of low-energy neutral atoms in space plasmas. <i>Applied Surface Science</i> , 2014, 313, 293-303.	3.1	2
61	Coupling of LMS with a fs-laser ablation ion source: elemental and isotope composition measurements. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 1256.	1.6	73
62	Highly accurate isotope composition measurements by a miniature laser ablation mass spectrometer designed for in situ investigations on planetary surfaces. <i>Planetary and Space Science</i> , 2013, 87, 1-13.	0.9	55
63	Performance evaluation of a miniature laser ablation time-of-flight mass spectrometer designed for <i>in situ</i> investigations in planetary space research. <i>Journal of Mass Spectrometry</i> , 2013, 48, 1-15.	0.7	76
64	Performance evaluation of a miniature laser ablation time-of-flight mass spectrometer designed for <i>in situ</i> investigations in planetary space research. <i>Journal of Mass Spectrometry</i> , 2013, 48, i.	0.7	55
65	Test Facility to Study Surface-Interaction Processes for Particle Detection in Space. <i>Journal of Spacecraft and Rockets</i> , 2013, 50, 402-410.	1.3	5
66	On Applicability of a Miniaturised Laser Ablation Time of Flight Mass Spectrometer for Trace Elements Measurements. <i>International Journal of Spectroscopy</i> , 2012, 2012, 1-14.	1.4	15
67	On the surface characterization of an Al ₂ O ₃ charge state conversion surface using ion scattering and atomic force microscope measurements. <i>Applied Surface Science</i> , 2012, 258, 7292-7298.	3.1	4
68	Optimization of mass spectrometers using the adaptive particle swarm algorithm. <i>Journal of Mass Spectrometry</i> , 2011, 46, 1143-1151.	0.7	20
69	Effect of long duration UV irradiation on diamondlike carbon surfaces in the presence of a hydrocarbon gaseous atmosphere. <i>Journal of Applied Physics</i> , 2010, 108, .	1.1	12