

# Bodo Hattendorf

## List of Publications by Year in descending order

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87  
papers

5,518  
citations

109321

35  
h-index

82547

72  
g-index

93  
all docs

93  
docs citations

93  
times ranked

7437  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly multiplexed imaging of tumor tissues with subcellular resolution by mass cytometry. <i>Nature Methods</i> , 2014, 11, 417-422.	19.0	1,430
2	Determination of Forty Two Major and Trace Elements in USGS and NIST SRM Glasses by Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry. <i>Geostandards and Geoanalytical Research</i> , 2002, 26, 181-196.	3.1	454
3	Solid sample analysis using laser ablation inductively coupled plasma mass spectrometry. <i>TrAC - Trends in Analytical Chemistry</i> , 2005, 24, 255-265.	11.4	432
4	Persistence of engineered nanoparticles in a municipal solid-waste incineration plant. <i>Nature Nanotechnology</i> , 2012, 7, 520-524.	31.5	186
5	Potentiometric Polymeric Membrane Electrodes for Measurement of Environmental Samples at Trace Levels: A New Requirements for Selectivities and Measuring Protocols, and Comparison with ICPMS. <i>Analytical Chemistry</i> , 2001, 73, 343-351.	6.5	179
6	Niobium-Zirconium Chronometry and Early Solar System Development. <i>Science</i> , 2002, 295, 1705-1708.	12.6	165
7	A prototype of a new inductively coupled plasma time-of-flight mass spectrometer providing temporally resolved, multi-element detection of short signals generated by single particles and droplets. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 226-233.	3.0	150
8	Peer Reviewed: Laser Ablation-ICPMS. <i>Analytical Chemistry</i> , 2003, 75, 341 A-347 A.	6.5	134
9	Characterization of a new ICP-TOFMS instrument with continuous and discrete introduction of solutions. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 548-561.	3.0	117
10	GFAJ-1 Is an Arsenate-Resistant, Phosphate-Dependent Organism. <i>Science</i> , 2012, 337, 467-470.	12.6	104
11	Use of rare-earth elements in the phyllosphere colonizer <i>Methylobacterium extorquens</i> PA1. <i>Molecular Microbiology</i> , 2019, 111, 1152-1166.	2.5	88
12	Simultaneous Mass Quantification of Nanoparticles of Different Composition in a Mixture by Microdroplet Generator-ICP-TOFMS. <i>Analytical Chemistry</i> , 2014, 86, 8142-8148.	6.5	86
13	Characteristics and capabilities of an ICP-MS with a dynamic reaction cell for dry aerosols and laser ablation. <i>Journal of Analytical Atomic Spectrometry</i> , 2000, 15, 1125-1131.	3.0	85
14	High-Speed, High-Resolution, Multielemental Laser Ablation-Inductively Coupled Plasma-Time-of-Flight Mass Spectrometry Imaging: Part I. Instrumentation and Two-Dimensional Imaging of Geological Samples. <i>Analytical Chemistry</i> , 2015, 87, 8250-8258.	6.5	76
15	Deep and bottom water export from the Southern Ocean to the Pacific over the past 38 million years. <i>Paleoceanography</i> , 2004, 19, n/a-n/a.	3.0	72
16	High-Speed, High-Resolution, Multielemental LA-ICP-TOFMS Imaging: Part II. Critical Evaluation of Quantitative Three-Dimensional Imaging of Major, Minor, and Trace Elements in Geological Samples. <i>Analytical Chemistry</i> , 2015, 87, 8259-8267.	6.5	70
17	Zirconium isotope evidence for incomplete admixing of r-process components in the solar nebula. <i>Earth and Planetary Science Letters</i> , 2003, 216, 467-481.	4.4	69
18	Differential passage of fluids and different-sized particles in fistulated oxen ( <i>Bos primigenius</i> f.) particle size discrimination is independent from contents stratification. <i>Comparative Biochemistry and Physiology Part A, Molecular &amp; Integrative Physiology</i> , 2010, 155, 211-222.	1.8	67

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19	Peptide-Coated Platinum Nanoparticles with Selective Toxicity against Liver Cancer Cells. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 4901-4905.	13.8	64
20	Comparison of manganese oxide nanoparticles and manganese sulfate with regard to oxidative stress, uptake and apoptosis in alveolar epithelial cells. <i>Toxicology Letters</i> , 2011, 205, 163-172.	0.8	59
21	Identification of growth mechanisms in metamorphic garnet by high-resolution trace element mapping with LA-ICP-TOFMS. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 1.	3.1	57
22	Nucleosynthetic zirconium isotope anomalies in acid leachates of carbonaceous chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5113-5122.	3.9	56
23	Analyte response in laser ablation inductively coupled plasma mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2006, 17, 641-651.	2.8	54
24	Size-Dependent Luminescence in HfO <sub>2</sub> Nanocrystals: Toward White Emission from Intrinsic Surface Defects. <i>Chemistry of Materials</i> , 2016, 28, 3245-3253.	6.7	54
25	Strategies for method development for an inductively coupled plasma mass spectrometer with bandpass reaction cell. Approaches with different reaction gases for the determination of selenium. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2003, 58, 1-13.	2.9	53
26	Effects of operating conditions and matrix on mass bias in MC-ICPMS. <i>Journal of Analytical Atomic Spectrometry</i> , 2009, 24, 637.	3.0	53
27	Tracing the history of submarine hydrothermal inputs and the significance of hydrothermal hafnium for the seawater budget—a combined Pb-Hf-Nd isotope approach. <i>Earth and Planetary Science Letters</i> , 2004, 222, 259-273.	4.4	50
28	Capabilities of laser ablation inductively coupled plasma time-of-flight mass spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 1946-1959.	3.0	49
29	Cadmium accumulation and allocation in different cacao cultivars. <i>Science of the Total Environment</i> , 2019, 678, 660-670.	8.0	47
30	Simultaneous Ultratrace Determination of Zr and Nb in Chromium Matrixes with ICP-Dynamic Reaction Cell MS. <i>Analytical Chemistry</i> , 2001, 73, 5494-5498.	6.5	45
31	Lead isotopes in North Pacific deep water — implications for past changes in input sources and circulation patterns. <i>Earth and Planetary Science Letters</i> , 2003, 209, 149-164.	4.4	44
32	Experimental Study of Collection Efficiencies between Submicron Aerosols and Cloud Droplets. <i>Journals of the Atmospheric Sciences</i> , 2011, 68, 1853-1864.	1.7	43
33	Vaporization and ionization of laser ablation generated aerosols in an inductively coupled plasma mass spectrometer—implications from ion distribution maps. <i>Journal of Analytical Atomic Spectrometry</i> , 2006, 21, 1143-1151.	3.0	42
34	Tellurium isotopic composition of the early solar system—A search for effects resulting from stellar nucleosynthesis, <sup>126</sup> Sn decay, and mass-independent fractionation. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5099-5112.	3.9	35
35	Search for nucleosynthetic and radiogenic tellurium isotope anomalies in carbonaceous chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 3436-3448.	3.9	35
36	Comparison of 795 nm and 265 nm femtosecond and 193 nm nanosecond laser ablation inductively coupled plasma mass spectrometry for the quantitative multi-element analysis of glass materials. <i>Journal of Analytical Atomic Spectrometry</i> , 2014, 29, 1345.	3.0	35

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37	Untargeted metabolomics links glutathione to bacterial cell cycle progression. <i>Nature Metabolism</i> , 2020, 2, 153-166.	11.9	34
38	Preparation and characterization of calibration standards for bone density determination by micro-computed tomography. <i>Analyst</i> , The, 2007, 132, 1040.	3.5	33
39	Calibration of laser-ablation ICP-MS. Can we use synthetic standards with pneumatic nebulization?. <i>Fresenius' Journal of Analytical Chemistry</i> , 1998, 362, 468-472.	1.5	30
40	Suppression of in-cell generated interferences in a reaction cell ICP-MS by bandpass tuning and kinetic energy discrimination. <i>Journal of Analytical Atomic Spectrometry</i> , 2004, 19, 600-606.	3.0	28
41	Diffusion- and velocity-driven spatial separation of analytes from single droplets entering an ICP off-axis. <i>Journal of Analytical Atomic Spectrometry</i> , 2014, 29, 262-271.	3.0	28
42	Detecting and Number Counting of Single Engineered Nanoparticles by Digital Particle Polymerase Chain Reaction. <i>ACS Nano</i> , 2015, 9, 9564-9572.	14.6	28
43	Systematic studies on the determination of Hg-labelled proteins using laser ablation-ICPMS and isotope dilution analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 2691-2698.	3.7	23
44	Thermally driven fracture aperture variation in naturally fractured granites. <i>Geothermal Energy</i> , 2019, 7, .	1.9	23
45	Nb/Zr fractionation on the Moon and the search for extinct <sup>92</sup> Nb. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 775-785.	3.9	22
46	Using the stable isotope marker <sup>44</sup> Ca to study dispersal and host-foraging activity in parasitoids. <i>Journal of Applied Ecology</i> , 2006, 43, 1031-1039.	4.0	21
47	Laser Ablation " Accelerator Mass Spectrometry: An Approach for Rapid Radiocarbon Analyses of Carbonate Archives at High Spatial Resolution. <i>Analytical Chemistry</i> , 2016, 88, 8570-8576.	6.5	21
48	Replacing the Argon ICP: Nitrogen Microwave Inductively Coupled Atmospheric-Pressure Plasma (MICAP) for Mass Spectrometry. <i>Analytical Chemistry</i> , 2018, 90, 13443-13450.	6.5	19
49	Improving detection capability for single particle inductively coupled plasma mass spectrometry with microdroplet sample introduction. <i>Journal of Analytical Atomic Spectrometry</i> , 2021, 36, 233-242.	3.0	19
50	Tellurium isotope compositions of calcium-aluminum-rich inclusions. <i>Meteoritics and Planetary Science</i> , 2009, 44, 971-984.	1.6	18
51	Thickness Determination of Subnanometer Layers Using Laser Ablation Inductively Coupled Plasma Mass Spectrometry. <i>Analytical Chemistry</i> , 2012, 84, 8771-8776.	6.5	18
52	Characterization of inductively coupled plasma time-of-flight mass spectrometry in combination with collision/reaction cell technology " insights from highly time-resolved measurements. <i>Journal of Analytical Atomic Spectrometry</i> , 2019, 34, 135-146.	3.0	18
53	Abundance and Impact of Doubly Charged Polyatomic Argon Interferences in ICPMS Spectra. <i>Analytical Chemistry</i> , 2016, 88, 7281-7288.	6.5	17
54	Skip the beat: minimizing aliasing error in LA-ICP-MS measurements. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 591-602.	3.7	17

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55	NanoSr – A New Carbonate Microanalytical Reference Material for <i>In Situ</i> Strontium Isotope Analysis. <i>Geostandards and Geoanalytical Research</i> , 2020, 44, 69-83.	3.1	16
56	Bismesitoylphosphinic Acid (BAPO-OH): A Ligand for Copper Complexes and Four-Electron Photoreductant for the Preparation of Copper Nanomaterials. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 7697-7702.	13.8	15
57	Dual isotope system analysis of lead white in artworks. <i>Analyst, The</i> , 2020, 145, 1310-1318.	3.5	15
58	Tracking parasitoids with the stable isotope <sup>44</sup> Ca in agroecosystems. <i>Agriculture, Ecosystems and Environment</i> , 2007, 118, 143-148.	5.3	14
59	No “bypass” in adult ruminants: Passage of fluid ingested vs. fluid inserted into the rumen in fistulated muskoxen ( <i>Ovibos moschatus</i> ), reindeer ( <i>Rangifer tarandus</i> ) and moose ( <i>Alces alces</i> ). <i>Comparative Biochemistry and Physiology Part A, Molecular &amp; Integrative Physiology</i> , 2009, 154, 151-156.	1.8	14
60	Toward a Spatiotemporal Understanding of Dolomite Dissolution in Sandstone by CO <sub>2</sub> -Enriched Brine Circulation. <i>Environmental Science &amp; Technology</i> , 2019, 53, 12458-12466.	10.0	14
61	The Bright X-Ray Stimulated Luminescence of HfO <sub>2</sub> Nanocrystals Activated by Ti Ions. <i>Advanced Optical Materials</i> , 2020, 8, 1901348.	7.3	13
62	An Rf-only ion funnel interface for ion cooling in laser ablation time of flight mass spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2018, 146, 57-68.	2.9	12
63	Laser ablation “accelerator mass spectrometry reveals complete bomb <sup>14</sup> C signal in an otolith with confirmation of 60-year longevity for red snapper ( <i>Lutjanus campechanus</i> ). <i>Marine and Freshwater Research</i> , 2019, 70, 1768.	1.3	12
64	Characteristics of an ion funnel as ion guide in an inductively coupled plasma mass spectrometer. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2012, 76, 40-47.	2.9	11
65	Highly-sensitive open-cell LA-ICPMS approaches for the quantification of rare earth elements in natural carbonates at parts-per-billion levels. <i>Analytica Chimica Acta</i> , 2018, 1018, 54-61.	5.4	11
66	LA-ICP-MS using a nitrogen plasma source. <i>Journal of Analytical Atomic Spectrometry</i> , 2021, 36, 1750-1757.	3.0	11
67	Mass Spectrometric Observation of Doubly Charged Alkaline-Earth Argon Ions. <i>ChemPhysChem</i> , 2016, 17, 2640-2644.	2.1	10
68	The Effect of Mineral Dissolution on the Effective Stress Law for Permeability in a Tight Sandstone. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088346.	4.0	10
69	Demonstrating Rapid Qualitative Elemental Analyses of Participant-Supplied Objects at a Public Outreach Event. <i>Journal of Chemical Education</i> , 2016, 93, 1749-1753.	2.3	9
70	Online electrothermal heating of laser-generated aerosols: effects on aerosol particle size and signal intensities in ICPMS. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 399, 2201-2209.	3.7	8
71	Rapid screening of boron isotope ratios in nuclear shielding materials by LA-ICPMS – a comparison of two different instrumental setups. <i>Journal of Analytical Atomic Spectrometry</i> , 2014, 29, 185-192.	3.0	8
72	Optimizing the analyte introduction for <sup>14</sup> C laser ablation-AMS. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 1813-1819.	3.0	8

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73	New Orientation: A Downward-pointing Vertical Inductively Coupled Plasma Mass Spectrometer for the Analysis of Microsamples. <i>Analytical Chemistry</i> , 2021, 93, 1001-1008.	6.5	8
74	A simple and soft chemical deaggregation method producing single-digit detonation nanodiamonds. <i>Nanoscale Advances</i> , 2022, 4, 2268-2277.	4.6	8
75	Mass spectrometry-based approaches to study lanthanides and lanthanide-dependent proteins in the phyllosphere. <i>Methods in Enzymology</i> , 2021, 650, 215-236.	1.0	7
76	Rapid Revelation of Radiocarbon Records with Laser Ablation Accelerator Mass Spectrometry. <i>Chimia</i> , 2014, 68, 215.	0.6	3
77	In situ element analysis of spodumenes by fs-LA-ICPMS with non-matrix-matched calibration: Signal beat and accuracy. <i>Chemical Geology</i> , 2021, 583, 120463.	3.3	3
78	Climatic variations during the Holocene inferred from radiocarbon and stable carbon isotopes in speleothems from a high-alpine cave. <i>Climate of the Past</i> , 2021, 17, 2165-2177.	3.4	3
79	Direct analysis of nanoparticles in organic solvents by ICPMS with microdroplet injection. <i>Journal of Analytical Atomic Spectrometry</i> , 2022, 37, 1738-1750.	3.0	3
80	Peptide-Coated Platinum Nanoparticles with Selective Toxicity against Liver Cancer Cells. <i>Angewandte Chemie</i> , 2019, 131, 4955-4959.	2.0	2
81	Strain-induced trace element mobility in a quartz-sulphide vein system: An example from the ONKALO spent nuclear fuel repository (Olkiluoto, SW Finland). <i>Journal of Structural Geology</i> , 2022, 154, 104473.	2.3	2
82	Element Analysis of Small and even Smaller Objects by ICPMS and LA-ICPMS. <i>Chimia</i> , 2014, 68, 112.	0.6	1
83	Laser Ablation ICP-MS for Single-Cell-based Tissue Imaging. <i>Chimia</i> , 2015, 69, 637.	0.6	1
84	A comparison of signal suppression and particle size distributions for ns- and fs-LA of metallic samples by LA-ETV-ICPMS. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 1980-1987.	3.0	1
85	Quantification of Nanoparticles in Dispersions Using Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2021, 27, 557-565.	0.4	1
86	Titelbild: Peptide-Coated Platinum Nanoparticles with Selective Toxicity against Liver Cancer Cells (Angew. Chem. 15/2019). <i>Angewandte Chemie</i> , 2019, 131, 4795-4795.	2.0	0
87	Age and Provenance Analysis from Micrograms of Artwork Pigments. <i>Chimia</i> , 2020, 74, 299.	0.6	0