Ralf Zimmermann

List of Publications by Year
in descending order

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159 papers	8,155 citations	81900 39 h-index	54911 84 g-index
167 all docs	167 docs citations	167 times ranked	8028 citing authors

#	Article	IF	Citations
1	High secondary aerosol contribution to particulate pollution during haze events in China. Nature, 2014, 514, 218-222.	27.8	3,582
2	Light and Molecular Ions: The Emergence of Vacuum UV Single-Photon Ionization in MS. Analytical Chemistry, 2009, 81, 4174-4182.	6.5	228
3	Two-stroke scooters are a dominant source of air pollution in many cities. Nature Communications, 2014, 5, 3749.	12.8	126
4	Laser Mass Spectrometry as On-Line Sensor for Industrial Process Analysis:Â Process Control of Coffee Roasting. Analytical Chemistry, 2004, 76, 1386-1402.	6.5	111
5	Particulate Matter from Both Heavy Fuel Oil and Diesel Fuel Shipping Emissions Show Strong Biological Effects on Human Lung Cells at Realistic and Comparable In Vitro Exposure Conditions. PLoS ONE, 2015, 10, e0126536.	2.5	111
6	Contributions of City-Specific Fine Particulate Matter (PM_{2.5}) to Differential In Vitro Oxidative Stress and Toxicity Implications between Beijing and Guangzhou of China. Environmental Science & Technology, 2019, 53, 2881-2891.	10.0	109
7	Comprehensive On-Line Characterization of Complex Gas Mixtures by Quasi-Simultaneous Resonance-Enhanced Multiphoton Ionization, Vacuum-UV Single-Photon Ionization, and Electron Impact Ionization in a Time-of-Flight Mass Spectrometer:Â Setup and Instrument Characterization. Analytical Chemistry, 2004, 76, 6753-6764.	6.5	100
8	Technical Note: In-situ derivatization thermal desorption GC-TOFMS for direct analysis of particle-bound non-polar and polar organic species. Atmospheric Chemistry and Physics, 2011, 11, 8977-8993.	4.9	87
9	Diurnal cycle of fossil and nonfossil carbon using radiocarbon analyses during CalNex. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6818-6835.	3.3	82
10	Dynamic changes in optical and chemical properties of tar ball aerosols by atmospheric photochemical aging. Atmospheric Chemistry and Physics, 2019, 19, 139-163.	4.9	81
11	Complete Group-Type Quantification of Petroleum Middle Distillates Based on Comprehensive Two-Dimensional Gas Chromatography Time-of-Flight Mass Spectrometry (GCÃ—GC-TOFMS) and Visual Basic Scripting. Energy & Fuels, 2014, 28, 5670-5681.	5.1	80
12	Characteristics and temporal evolution of particulate emissions from a ship diesel engine. Applied Energy, 2015, 155, 204-217.	10.1	76
13	Infrared-absorbing carbonaceous tar can dominate light absorption by marine-engine exhaust. Npj Climate and Atmospheric Science, 2019, 2, .	6.8	71
14	Application of direct thermal desorption gas chromatography and comprehensive two-dimensional gas chromatography coupled to time of flight mass spectrometry for analysis of organic compounds in ambient aerosol particles. Journal of Separation Science, 2005, 28, 1648-1657.	2.5	65
15	Aerosol emissions of a ship diesel engine operated with diesel fuel or heavy fuel oil. Environmental Science and Pollution Research, 2017, 24, 10976-10991.	5.3	65
16	Brown and Black Carbon Emitted by a Marine Engine Operated on Heavy Fuel Oil and Distillate Fuels: Optical Properties, Size Distributions, and Emission Factors. Journal of Geophysical Research D: Atmospheres, 2018, 123, 6175-6195.	3.3	62
17	Resonance-Enhanced Multiphoton Ionization Mass Spectrometry (REMPI-MS): Applications for Process Analysis. Annual Review of Analytical Chemistry, 2014, 7, 361-381.	5.4	59
18	Laser mass spectrometry of dibenzodioxin, dibenzofuran and two isomers of dichlorodibenzodioxins: Selective ionization. Rapid Communications in Mass Spectrometry, 1993, 7, 183-185.	1.5	56

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19	Daytime resolved analysis of polycyclic aromatic hydrocarbons in urban aerosol samples â€“ Impact of sources and meteorological conditions. Chemosphere, 2007, 67, 934-943.	8.2	55
20	Online Analysis of Biomass Pyrolysis Tar by Photoionization Mass Spectrometry. Energy & Fuels, 2016, 30, 1555-1563.	5.1	55
21	Real time monitoring of slow pyrolysis of polyethylene terephthalate (PET) by different mass spectrometric techniques. Waste Management, 2020, 106, 226-239.	7.4	55
22	Fast Pyrolysis in a Microfluidized Bed Reactor: Effect of Biomass Properties and Operating Conditions on Volatiles Composition as Analyzed by Online Single Photoionization Mass Spectrometry. Energy & Fuels, 2015, 29, 7364-7374.	5.1	54
23	Fast Determination of the Relative Elemental and Organic Carbon Content of Aerosol Samples by On-Line Single-Particle Aerosol Time-of-Flight Mass Spectrometry. Environmental Science & Technology, 2006, 40, 3327-3335.	10.0	53
24	Application of Laser Ionization Mass Spectrometry for On-line Monitoring of Volatiles in the Headspace of Food Products: Roasting and Brewing of Coffee. Rapid Communications in Mass Spectrometry, 1996, 10, 1975-1979.	1.5	52
25	Online Laser Desorption-Multiphoton Postionization Mass Spectrometry of Individual Aerosol Particles: Molecular Source Indicators for Particles Emitted from Different Traffic-Related and Wood Combustion Sources. Analytical Chemistry, 2008, 80, 8991-9004.	6.5	51
26	Thermal Desorptionâ€'Multiphoton Ionization Time-of-Flight Mass Spectrometry of Individual Aerosol Particles: A Simplified Approach for Online Single-Particle Analysis of Polycyclic Aromatic Hydrocarbons and Their Derivatives. Analytical Chemistry, 2009, 81, 2525-2536.	6.5	50
27	Hyphenation of Thermal Analysis to Ultrahigh-Resolution Mass Spectrometry (Fourier Transform Ion) Tj ETQq1 1 0.784314 rgBT /Over Studying Composition and Thermal Degradation of Complex Materials. Analytical Chemistry, 2015, 87, 6493-6499.	6.5	50
28	Single Photon Ionization Orthogonal Acceleration Time-of-Flight Mass Spectrometry and Resonance Enhanced Multiphoton Ionization Time-of-Flight Mass Spectrometry for Evolved Gas Analysis in Thermogravimetry: Comparative Analysis of Crude Oils. Analytical Chemistry, 2009, 81, 6038-6048.	6.5	49
29	Insights into isoprene production using the cyanobacterium Synechocystis sp. PCC 6803. Biotechnology for Biofuels, 2016, 9, 89.	6.2	49
30	Application of single-particle laser desorption/ionization time-of-flight mass spectrometry for detection of polycyclic aromatic hydrocarbons from soot particles originating from an industrial combustion process. Rapid Communications in Mass Spectrometry, 2003, 17, 851-859.	1.5	48
31	Photo-ionisation mass spectrometry as detection method for gas chromatography. Journal of Chromatography A, 2008, 1184, 296-308.	3.7	48
32	Evolved gas analysis (EGA) in TG and DSC with single photon ionisation mass spectrometry (SPI-MS): molecular organic signatures from pyrolysis of soft and hard wood, coal, crude oil and ABS polymer. Journal of Thermal Analysis and Calorimetry, 2009, 96, 795-804.	3.6	48
33	Seasonal variation of particle-induced oxidative potential of airborne particulate matter in Beijing. Science of the Total Environment, 2017, 579, 1152-1160.	8.0	47
34	Vacuum ultraviolet absorption spectroscopy in combination with comprehensive two-dimensional gas chromatography for the monitoring of volatile organic compounds in breath gas: A feasibility study. Journal of Chromatography A, 2016, 1464, 141-146.	3.7	45
35	Rapid and direct volatile compound profiling of black and green teas (Camellia sinensis) from different countries with PTR-ToF-MS. Talanta, 2016, 152, 45-53.	5.5	44
36	Thermal Analysis Coupled to Ultrahigh Resolution Mass Spectrometry with Collision Induced Dissociation for Complex Petroleum Samples: Heavy Oil Composition and Asphaltene Precipitation Effects. Energy & Fuels, 2017, 31, 13144-13158.	5.1	44

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37	On-Line Process Analysis of Biomass Flash Pyrolysis Gases Enabled by Soft Photoionization Mass Spectrometry. Energy & Fuels, 2012, 26, 701-711.	5.1	42
38	Chemical composition and speciation of particulate organic matter from modern residential small-scale wood combustion appliances. Science of the Total Environment, 2018, 612, 636-648.	8.0	42
39	Combination of Different Thermal Analysis Methods Coupled to Mass Spectrometry for the Analysis of Asphaltenes and Their Parent Crude Oils: Comprehensive Characterization of the Molecular Pyrolysis Pattern. Energy & Fuels, 2018, 32, 2699-2711.	5.1	42
40	An on-line aerosol laser mass spectrometer with three, easily interchangeable laser based ionisation methods for characterisation of inorganic and aromatic compounds on particles. International Journal of Mass Spectrometry, 2006, 258, 86-94.	1.5	39
41	Measurement System for Characterization of Gas and Particle Phase of High Temperature Combustion Aerosols. Aerosol Science and Technology, 2010, 44, 1-9.	3.1	39
42	Looking into individual coffee beans during the roasting process: direct micro-probe sampling on-line photo-ionisation mass spectrometric analysis of coffee roasting gases. Analytical and Bioanalytical Chemistry, 2013, 405, 7083-7096.	3.7	39
43	Evolved gas analysis by single photon ionization-mass spectrometry. Journal of Thermal Analysis and Calorimetry, 2014, 116, 1461-1469.	3.6	38
44	Hyphenation of gas chromatography and resonance-enhanced laser mass spectrometry (REMPI-TOFMS): A multidimensional analytical technique. Journal of High Resolution Chromatography, 1997, 20, 461-470.	1.4	37
45	Analysis of Gas-Phase Carbonyl Compounds in Emissions from Modern Wood Combustion Appliances: Influence of Wood Type and Combustion Appliance. Energy & Fuels, 2015, 29, 3897-3907.	5.1	37
46	Variation of Absorption Ã…ngstrÃ¶m Exponent in Aerosols From Different Emission Sources. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034094.	3.3	37
47	Onâ€line process monitoring of coffee roasting by resonant laser ionisation timeâ€ofâ€flight mass spectrometry: bridging the gap from industrial batch roasting to flavour formation inside an individual coffee bean. Journal of Mass Spectrometry, 2013, 48, 1253-1265.	1.6	35
48	Hyphenation of two simultaneously employed soft photo ionization mass spectrometers with thermal analysis of biomass and biochar. Thermochimica Acta, 2013, 551, 155-163.	2.7	34
49	Characterisation of the impact of open biomass burning on urban air quality in Brisbane, Australia. Environment International, 2016, 91, 230-242.	10.0	34
50	Gas chromatography in combination with fast high-resolution time-of-flight mass spectrometry: Technical overview and perspectives for data visualization. TrAC - Trends in Analytical Chemistry, 2020, 122, 115677.	11.4	34
51	Thermal Resilience of Imidazolium-Based Ionic Liquidsâ€”Studies on Short- and Long-Term Thermal Stability and Decomposition Mechanism of 1-Alkyl-3-methylimidazolium Halides by Thermal Analysis and Single-Photon Ionization Time-of-Flight Mass Spectrometry. Journal of Physical Chemistry B, 2018, 122, 8738-8749.	2.6	33
52	Impact of photochemical ageing on Polycyclic Aromatic Hydrocarbons (PAH) and oxygenated PAH (Oxy-PAH/OH-PAH) in logwood stove emissions. Science of the Total Environment, 2019, 686, 382-392.	8.0	32
53	Source apportionment of fine particulate matter in a Middle Eastern Metropolis, Tehran-Iran, using PMF with organic and inorganic markers. Science of the Total Environment, 2020, 705, 135330.	8.0	30
54	Advanced scripting for the automated profiling of two-dimensional gas chromatography-time-of-flight mass spectrometry data from combustion aerosol. Journal of Chromatography A, 2014, 1364, 241-248.	3.7	29

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55	Characterisation of ship diesel primary particulate matter at the molecular level by means of ultra-high-resolution mass spectrometry coupled to laser desorption ionisationâ€"comparison of feed fuel, filter extracts and direct particle measurements. Analytical and Bioanalytical Chemistry, 2015, 407, 5923-5937.	3.7	29
56	Metabolic Profiling as Well as Stable Isotope Assisted Metabolic and Proteomic Analysis of RAW 264.7 Macrophages Exposed to Ship Engine Aerosol Emissions: Different Effects of Heavy Fuel Oil and Refined Diesel Fuel. PLoS ONE, 2016, 11, e0157964.	2.5	29
57	Aerosol Mass Spectrometer for Simultaneous Detection of Polyaromatic Hydrocarbons and Inorganic Components from Individual Particles. Analytical Chemistry, 2017, 89, 6341-6345.	6.5	29
58	Thermal analysis/mass spectrometry using soft photo-ionisation for the investigation of biomass and mineral oils. Journal of Thermal Analysis and Calorimetry, 2009, 97, 615-619.	3.6	28
59	Quantitative analysis of modern fuels derived from middle distillates â€" The impact of diverse compositions on standard methods evaluated by an offline hyphenation of HPLC-refractive index detection with GCÃ—GC-TOFMS. Fuel, 2017, 187, 16-25.	6.4	28
60	Evaluation of reversed phase versus normal phase column combination for the quantitative analysis of common commercial available middle distillates using GCâ€Ã—â€GC-TOFMS and Visual Basic Script. Fuel, 2019, 235, 336-338.	6.4	28
61	Rapid comprehensive characterization of crude oils by thermogravimetry coupled to fast modulated gas chromatographyâ€"single photon ionization time-of-flight mass spectrometry. Analytical and Bioanalytical Chemistry, 2013, 405, 7107-7116.	3.7	27
62	Integration of air pollution data collected by mobile measurement to derive a preliminary spatiotemporal air pollution profile from two neighboring German-Czech border villages. Science of the Total Environment, 2020, 722, 137632.	8.0	27
63	Investigation of different crude oils applying thermal analysis/mass spectrometry with soft photoionisation. Journal of Thermal Analysis and Calorimetry, 2009, 96, 813-820.	3.6	26
64	Photo ionisation in mass spectrometry: light, selectivity and molecular ions. Analytical and Bioanalytical Chemistry, 2013, 405, 6901-6905.	3.7	26
65	Time-resolved chemical composition of small-scale batch combustion emissions from various wood species. Fuel, 2018, 233, 224-236.	6.4	26
66	PM2.5 concentration and composition in the urban air of Nanjing, China: Effects of emission control measures applied during the 2014 Youth Olympic Games. Science of the Total Environment, 2019, 652, 1-18.	8.0	26
67	Resolving Coffee Roasting-Degree Phases Based on the Analysis of Volatile Compounds in the Roasting Off-Gas by Photoionization Time-of-Flight Mass Spectrometry (PI-TOFMS) and Statistical Data Analysis: Toward a PI-TOFMS Roasting Model. Journal of Agricultural and Food Chemistry, 2016, 64, 5223-5231.	5.2	25
68	Investigation of Island/Single-Core- and Archipelago/Multicore-Enriched Asphaltenes and Their Solubility Fractions by Thermal Analysis Coupled with High-Resolution Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. Energy & Fuels, 2021, 35, 3808-3824.	5.1	25
69	Thermal desorption/pyrolysis coupled with photo ionisation time-of-flight mass spectrometry for the analysis and discrimination of pure tobacco samples. Journal of Analytical and Applied Pyrolysis, 2007, 79, 24-32.	5.5	24
70	Spatial and temporal variability of source contributions to ambient PM10 during winter in Augsburg, Germany using organic and inorganic tracers. Chemosphere, 2014, 103, 263-273.	8.2	24
71	Application of pyrolysisâ€"mass spectrometry and pyrolysisâ€"gas chromatographyâ€"mass spectrometry with electron-ionization or resonance-enhanced-multi-photon ionization for characterization of crude oils. Analytica Chimica Acta, 2015, 855, 60-69.	5.4	24
72	Evolution of Volatile Flavor Compounds During Roasting of Nut Seeds by Thermogravimetry Coupled to Fast-Cycling Optical Heating Gas Chromatography-Mass Spectrometry with Electron and Photoionization. Food Analytical Methods, 2017, 10, 49-62.	2.6	24

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73	Determination of Photoionization Cross-Sections of Different Organic Molecules Using Gas Chromatography Coupled to Single-Photon Ionization (SPI) Time-of-Flight Mass Spectrometry (TOF-MS) with an Electron-Beam-Pumped Rare Gas Excimer Light Source (EBEL): Influence of Molecular Structure and Analytical Implications. Applied Spectroscopy, 2011, 65, 806-816.	2.2	23
74	Gas Chromatography Coupled to Atmospheric Pressure Chemical Ionization FT-ICR Mass Spectrometry for Improvement of Data Reliability. Analytical Chemistry, 2015, 87, 11957-11961.	6.5	23
75	Detailed Chemical Characterization of Bunker Fuels by High-Resolution Time-of-Flight Mass Spectrometry Hyphenated to GC Ã— GC and Thermal Analysis. Energy & Fuels, 2019, 33, 10745-10755.	5.1	23
76	A chemometric investigation of aromatic emission profiles from a marine engine in comparison with residential wood combustion and road traffic: Implications for source apportionment inside and outside sulphur emission control areas. Atmospheric Environment, 2017, 167, 212-222.	4.1	22
77	Investigation of Aging Processes in Bitumen at the Molecular Level with High-Resolution Fourier-Transform Ion Cyclotron Mass Spectrometry and Two-Dimensional Gas Chromatography Mass Spectrometry. Energy & Fuels, 2020, 34, 10641-10654.	5.1	22
78	Air pollution in Germany: Spatio-temporal variations and their driving factors based on continuous data from 2008 to 2018. Environmental Pollution, 2021, 276, 116732.	7.5	22
79	Mobile resonance enhanced multiphoton ionisationâ€“time-of-flight mass spectrometer with a novel hybrid laser desorption/molecular beam ion source for rapid detection of aromatic trace compounds from gas phase and solid samples. Journal of Chromatography A, 2004, 1058, 39-49.	3.7	21
80	Spatially Shaped Laser Pulses for the Simultaneous Detection of Polycyclic Aromatic Hydrocarbons as well as Positive and Negative Inorganic Ions in Single Particle Mass Spectrometry. Analytical Chemistry, 2019, 91, 10282-10288.	6.5	21
81	Comprehensive chemical comparison of fuel composition and aerosol particles emitted from a ship diesel engine by gas chromatography atmospheric pressure chemical ionisation ultra-high resolution mass spectrometry with improved data processing routines. European Journal of Mass Spectrometry, 2017, 23, 28-39.	1.0	20
82	A novel high-volume Photochemical Emission Aging flow tube Reactor (PEAR). Aerosol Science and Technology, 2019, 53, 276-294.	3.1	20
83	Review on Evolved Gas Analysis Mass Spectrometry with Soft Photoionization for the Chemical Description of Petroleum, Petroleum-Derived Materials, and Alternative Feedstocks. Energy & Fuels, 2021, 35, 18308-18332.	5.1	20
84	Proof of Concept of High-Temperature Comprehensive Two-Dimensional Gas Chromatography Time-of-Flight Mass Spectrometry for Two-Dimensional Simulated Distillation of Crude Oils. Energy & Fuels, 2017, 31, 11651-11659.	5.1	19
85	Thermal analysis/evolved gas analysis using single photon ionization. Journal of Thermal Analysis and Calorimetry, 2013, 113, 1667-1673.	3.6	18
86	Investigating the Trace Polar Species Present in Diesel Using High-Resolution Mass Spectrometry and Selective Ionization Techniques. Energy & Fuels, 2015, 29, 5554-5562.	5.1	18
87	Effect of functional groups on the thermal degradation of phosphorus- and phosphorus/nitrogen-containing functional polymers. Journal of Thermal Analysis and Calorimetry, 2017, 130, 799-812.	3.6	18
88	Organic molecular markers and source contributions in a polluted municipality of north-east Italy: Extended PCA-PMF statistical approach. Environmental Research, 2020, 186, 109587.	7.5	18
89	An ultracompact photo-ionization time-of-flight mass spectrometer with a novel vacuum ultraviolet light source for on-line detection of organic trace compounds and as a detector for gas chromatography. Journal of Material Cycles and Waste Management, 2008, 10, 24-31.	3.0	17
90	Real-time analysis of aromatics in combustion engine exhaust by resonance-enhanced multiphoton ionisation time-of-flight mass spectrometry (REMPI-TOF-MS): a robust tool for chassis dynamometer testing. Analytical and Bioanalytical Chemistry, 2012, 404, 273-276.	3.7	17

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91	Highly Time-Resolved Imaging of Combustion and Pyrolysis Product Concentrations in Solid Fuel Combustion: NO Formation in a Burning Cigarette. Analytical Chemistry, 2015, 87, 1711-1717.	6.5	17
92	Determination of Relative Ionization Cross Sections for Resonance Enhanced Multiphoton Ionization of Polycyclic Aromatic Hydrocarbons. Applied Sciences (Switzerland), 2018, 8, 1617.	2.5	17
93	Evaluation and application of gas chromatography - vacuum ultraviolet spectroscopy for drug- and explosive precursors and examination of non-negative matrix factorization for deconvolution. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 219, 129-134.	3.9	17
94	Toxicity of Water- and Organic-Soluble Wood Tar Fractions from Biomass Burning in Lung Epithelial Cells. Chemical Research in Toxicology, 2021, 34, 1588-1603.	3.3	17
95	Detection of ship plumes from residual fuel operation in emission control areas using single-particle mass spectrometry. Atmospheric Measurement Techniques, 2021, 14, 4171-4185.	3.1	17
96	Direct inlet probe â€“ High-resolution time-of-flight mass spectrometry as fast technique for the chemical description of complex high-boiling samples. Talanta, 2019, 202, 308-316.	5.5	16
97	Toward Smart Online Coffee Roasting Process Control: Feasibility of Real-Time Prediction of Coffee Roast Degree and Brew Antioxidant Capacity by Single-Photon Ionization Mass Spectrometric Monitoring of Roast Gases. Journal of Agricultural and Food Chemistry, 2020, 68, 4752-4759.	5.2	16
98	Hyphenation of a thermobalance to soft single photon ionisation mass spectrometry for evolved gas analysis in thermogravimetry (TG-EGA). Journal of Thermal Analysis and Calorimetry, 2009, 97, 689-694.	3.6	15
99	Characterization of a heroin manufacturing process based on acidic extracts by combining complementary information from two-dimensional gas chromatography and high resolution mass spectrometry. Forensic Chemistry, 2017, 4, 9-18.	2.8	15
100	Pyrolysisâ€“gas chromatographyâ€“mass spectrometry with electron-ionization or resonance-enhanced-multi-photon-ionization for characterization of polycyclic aromatic hydrocarbons in the Baltic Sea. Marine Pollution Bulletin, 2015, 99, 35-42.	5.0	14
101	Direct Infusion Resonance-Enhanced Multiphoton Ionization Mass Spectrometry of Liquid Samples under Vacuum Conditions. Analytical Chemistry, 2017, 89, 10917-10923.	6.5	14
102	Assessment of the presence of damiana in herbal blends of forensic interest based on comprehensive two-dimensional gas chromatography. Forensic Toxicology, 2013, 31, 251-262.	2.4	13
103	Needle trap sampling thermal-desorption resonance enhanced multiphoton ionization time-of-flight mass spectrometry for analysis of marine diesel engine exhaust. Analytical Methods, 2015, 7, 3608-3617.	2.7	13
104	Organic speciation of ambient quasi-ultrafine particulate matter (PM0.36) in Augsburg, Germany: Seasonal variability and source apportionment. Science of the Total Environment, 2018, 615, 828-837.	8.0	13
105	Ambient Pressure Laser Desorptionâ€”Chemical Ionization Mass Spectrometry for Fast and Reliable Detection of Explosives, Drugs, and Their Precursors. Applied Sciences (Switzerland), 2018, 8, 933.	2.5	13
106	pH modifies the oxidative potential and peroxide content of biomass burning HULIS under dark aging. Science of the Total Environment, 2022, 834, 155365.	8.0	13
107	Flow injection of liquid samples to a mass spectrometer with ionization under vacuum conditions: a combined ion source for single-photon and electron impact ionization. Analytical and Bioanalytical Chemistry, 2013, 405, 6953-6957.	3.7	12
108	Pyrolysis-gas chromatography-mass spectrometry with electron-ionization and resonance-enhanced-multi-photon-ionization for the characterization of terrestrial dissolved organic matter in the Baltic Sea. Analytical Methods, 2016, 8, 2592-2603.	2.7	12

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109	An evolved gas analysis method for the characterization of sulfur vapor. Journal of Thermal Analysis and Calorimetry, 2017, 127, 955-960.	3.6	12
110	Identification of specific markers for amphetamine synthesised from the preâ€precursor APAAN following the Leuckart route and retrospective search for APAAN markers in profiling databases from Germany and the Netherlands. Drug Testing and Analysis, 2018, 10, 671-680.	2.6	12
111	Profiling of synthesisâ€related impurities of the synthetic cannabinoid Cumylâ€5Fâ€PINACA in seized samples of eâ€liquids via multivariate analysis of UHPLCâ^'MSⁿ data. Drug Testing and Analysis, 2020, 12, 119-126.	2.6	12
112	Single-particle characterization of polycyclic aromatic hydrocarbons in background air in northern Europe. Atmospheric Chemistry and Physics, 2022, 22, 1495-1514.	4.9	12
113	Molecular Characterization of Water-Soluble Aerosol Particle Extracts by Ultrahigh-Resolution Mass Spectrometry: Observation of Industrial Emissions and an Atmospherically Aged Wildfire Plume at Lake Baikal. ACS Earth and Space Chemistry, 2022, 6, 1095-1107.	2.7	12
114	Secondary organic aerosols produced from photochemical oxidation of secondarily evaporated biomass burning organic gases: Chemical composition, toxicity, optical properties, and climate effect. Environment International, 2021, 157, 106801.	10.0	11
115	Investigation of polymers by a novel analytical approach for evolved gas analysis in thermogravimetry. Journal of Thermal Analysis and Calorimetry, 2011, 105, 859-866.	3.6	10
116	Mass spectrometric characterization of limited proteolysis activity in human plasma samples under mild acidic conditions. Methods, 2015, 89, 30-37.	3.8	10
117	Optically Heated Ultra-Fast-Cycling Gas Chromatography Module for Separation of Direct Sampling and Online Monitoring Applications. Analytical Chemistry, 2015, 87, 8634-8639.	6.5	10
118	Description of Steam Cracker Fouling and Coking Residues by Thermal Analysis-Photoionization Mass Spectrometry. Energy & Fuels, 2019, 33, 11592-11602.	5.1	10
119	Resonance-enhanced detection of metals in aerosols using single-particle mass spectrometry. Atmospheric Chemistry and Physics, 2020, 20, 7139-7152.	4.9	10
120	Extraction kinetics of tea aroma compounds as a function brewing temperature, leaf size and water hardness. Flavour and Fragrance Journal, 2020, 35, 365-375.	2.6	10
121	Sorption and biodegradation parameters of selected pharmaceuticals in laboratory column experiments. Journal of Contaminant Hydrology, 2021, 236, 103738.	3.3	10
122	Vacuum Laser Photoionization inside the C-trap of an Orbitrap Mass Spectrometer: Resonance-Enhanced Multiphoton Ionization High-Resolution Mass Spectrometry. Analytical Chemistry, 2021, 93, 9418-9427.	6.5	10
123	Effect of hydrothermal carbonization and eutectic salt mixture (KCl/LiCl) on the pyrolysis of Kraft lignin as revealed by thermal analysis coupled to advanced high-resolution mass spectrometry. Journal of Analytical and Applied Pyrolysis, 2022, 166, 105604.	5.5	10
124	A minimal-invasive method for systemic bio-monitoring of the environmental pollutant phenanthrene in humans: Thermal extraction and gas chromatography â^' mass spectrometry from 1 mL capillary blood. Journal of Chromatography A, 2017, 1487, 254-257.	3.7	9
125	A Novel Impurity-Profiling Workflow with the Combination of Flash-Chromatography, UHPLC-MS, and Multivariate Data Analysis for Highly Pure Drugs: A Study on the Synthetic Cannabinoid MDMB-CHMICA. Analytical Chemistry, 2018, 90, 10559-10567.	6.5	9
126	Development and Optimization of an External-Membrane Introduction Photoionization Mass Spectrometer for the Fast Analysis of (Polycyclic)Aromatic Compounds in Environmental and Process Waters. Analytical Chemistry, 2019, 91, 15547-15554.	6.5	9

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127	Smart Online Coffee Roasting Process Control: Modelling Coffee Roast Degree and Brew Antioxidant Capacity for Real-Time Prediction by Resonance-Enhanced Multi-Photon Ionization Mass Spectrometric (REMPI-TOFMS) Monitoring of Roast Gases. Foods, 2020, 9, 627.	4.3	9
128	Puff-Resolved Analysis and Selected Quantification of Chemicals in the Gas Phase of E-Cigarettes, Heat-Not-Burn Devices, and Conventional Cigarettes Using Single-Photon Ionization Time-of-Flight Mass Spectrometry (SPI-TOFMS): A Comparative Study. Nicotine and Tobacco Research, 2021, 23, 2135-2144.	2.6	9
129	Comprehensive Chemical Description of Pyrolysis Chars from Low-Density Polyethylene by Thermal Analysis Hyphenated to Different Mass Spectrometric Approaches. Energy & Fuels, 2021, 35, 18185-18193.	5.1	9
130	Genotoxic and inflammatory effects of spruce and brown coal briquettes combustion aerosols on lung cells at the air-liquid interface. Science of the Total Environment, 2022, 806, 150489.	8.0	9
131	Hyper-fast gas chromatography and single-photon ionisation time-of-flight mass spectrometry with integrated electrical modulator-based sampling for headspace and online VOC analyses. Analyst, The, 2021, 146, 3137-3149.	3.5	8
132	Speciation of organosulfur compounds in carbonaceous chondrites. Scientific Reports, 2021, 11, 7410.	3.3	8
133	Hyphenation of thermogravimetry and soft single photon ionizationâ€“ion trap mass spectrometry (TGâ€“SPIâ€“ITMS) for evolved gas analysis. Journal of Thermal Analysis and Calorimetry, 2014, 116, 1471-1479.	3.6	7
134	Atmospheric Pressure Single Photon Laser Ionization (APSPLI) Mass Spectrometry Using a 157 nm Fluorine Excimer Laser for Sensitive and Selective Detection of Non- to Semipolar Hydrocarbons. Analytical Chemistry, 2021, 93, 3691-3697.	6.5	7
135	Dried Blood Spot (DBS) Methodology Study for Biomarker Discovery in Lysosomal Storage Disease (LSD). Metabolites, 2021, 11, 382.	2.9	7
136	Chemical profiling of the synthetic cannabinoid MDMBâ€CHMICA: Identification, assessment, and stability study of synthesisâ€related impurities in seized and synthesized samples. Drug Testing and Analysis, 2019, 11, 1192-1206.	2.6	6
137	Cyclic Ion Mobility Spectrometry Coupled to High-Resolution Time-of-Flight Mass Spectrometry Equipped with Atmospheric Solid Analysis Probe for the Molecular Characterization of Combustion Particulate Matter. Journal of the American Society for Mass Spectrometry, 2021, 32, 206-217.	2.8	6
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