

Joachim Franzke

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7381333/publications.pdf>

Version: 2024-02-01

77
papers

2,426
citations

201674

27
h-index

214800

47
g-index

79
all docs

79
docs citations

79
times ranked

1948
citing authors

#	ARTICLE	IF	CITATIONS
1	Scaling and the design of miniaturized chemical-analysis systems. <i>Nature</i> , 2006, 442, 374-380.	27.8	635
2	Dielectric Barrier Discharge Ionization for Liquid Chromatography/Mass Spectrometry. <i>Analytical Chemistry</i> , 2009, 81, 10239-10245.	6.5	110
3	Microplasmas for analytical spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2003, 18, 802.	3.0	93
4	Spectroscopic characterization of a microplasma used as ionization source for ion mobility spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2007, 62, 1208-1215.	2.9	79
5	On the potential of ion mobility spectrometry coupled to GC pre-separation – A tutorial. <i>Analytica Chimica Acta</i> , 2018, 1024, 52-64.	5.4	62
6	Ambient Diode Laser Desorption Dielectric Barrier Discharge Ionization Mass Spectrometry of Nonvolatile Chemicals. <i>Analytical Chemistry</i> , 2013, 85, 3174-3182.	6.5	58
7	Micro-plasma: a novel ionisation source for ion mobility spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 391, 2609-2615.	3.7	56
8	Analytical Detectors Based on Microplasma Spectrometry. <i>Plasma Chemistry and Plasma Processing</i> , 2007, 27, 205-224.	2.4	52
9	Direct optical emission spectroscopy of liquid analytes using an electrolyte as a cathode discharge source (ELCAD) integrated on a micro-fluidic chip. <i>Lab on A Chip</i> , 2005, 5, 711.	6.0	51
10	Simultaneous testing of multiclass organic contaminants in food and environment by liquid chromatography/dielectric barrier discharge ionization-mass spectrometry. <i>Analyst</i> , 2012, 137, 5403.	3.5	51
11	Review: Miniature dielectric barrier discharge (DBD) in analytical atomic spectrometry. <i>Analytica Chimica Acta</i> , 2021, 1147, 211-239.	5.4	48
12	A new interface to couple thin-layer chromatography with laser desorption/atmospheric pressure chemical ionization mass spectrometry for plate scanning. <i>Rapid Communications in Mass Spectrometry</i> , 2005, 19, 2789-2793.	1.5	46
13	Dielectric barrier discharges applied for soft ionization and their mechanism. <i>Analytica Chimica Acta</i> , 2017, 951, 16-31.	5.4	44
14	Liquid electrode dielectric barrier discharge for the analysis of solved metals. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 1974.	3.0	42
15	Determination of Peroxide Explosive TATP and Related Compounds by Dielectric Barrier Discharge Ionization-Mass Spectrometry (DBDI-MS). <i>Analytical Chemistry</i> , 2017, 89, 4210-4215.	6.5	41
16	Ambient (desorption/ionization) mass spectrometry methods for pesticide testing in food: a review. <i>Analytical Methods</i> , 2020, 12, 4831-4852.	2.7	40
17	Liquid analysis dielectric capillary barrier discharge. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 2917-2922.	3.7	35
18	Performance of dielectric barrier discharge ionization mass spectrometry for pesticide testing: a comparison with atmospheric pressure chemical ionization and electrospray ionization. <i>Rapid Communications in Mass Spectrometry</i> , 2013, 27, 419-429.	1.5	35

#	ARTICLE	IF	CITATIONS
19	Dielectric Barrier Discharge Ionization of Perfluorinated Compounds. <i>Analytical Chemistry</i> , 2015, 87, 11415-11419.	6.5	35
20	Thin-layer chromatography combined with diode laser desorption/atmospheric pressure chemical ionization mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2004, 18, 1803-1808.	1.5	34
21	Spatially and Temporally Resolved Detection of Arsenic in a Capillary Dielectric Barrier Discharge by Hydride Generation High-Resolved Optical Emission Spectrometry. <i>Analytical Chemistry</i> , 2018, 90, 3424-3429.	6.5	33
22	Use of dielectric barrier discharge ionization to minimize matrix effects and expand coverage in pesticide residue analysis by liquid chromatography-mass spectrometry. <i>Analytica Chimica Acta</i> , 2018, 1020, 76-85.	5.4	32
23	Investigations into Modeling and Further Estimation of Detection Limits of the Liquid Electrode Dielectric Barrier Discharge. <i>Analytical Chemistry</i> , 2014, 86, 5822-5828.	6.5	31
24	Characterization of a Nitrogen-Based Dielectric Barrier Discharge Ionization Source for Mass Spectrometry Reveals Factors Important for Soft Ionization. <i>Analytical Chemistry</i> , 2019, 91, 6865-6871.	6.5	31
25	Capillary Dielectric Barrier Discharge: Transition from Soft Ionization to Dissociative Plasma. <i>Analytical Chemistry</i> , 2016, 88, 4701-4705.	6.5	30
26	Impact of homogeneous and filamentary discharge modes on the efficiency of dielectric barrier discharge ionization mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 4729-4735.	3.7	28
27	Discussion of fundamental processes in dielectric barrier discharges used for soft ionization. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2014, 100, 52-61.	2.9	28
28	Characterization of dielectric barrier electrospray ionization for mass spectrometric detection. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 1767-1772.	3.7	27
29	Flexible Microtube Plasma (F ^{1/4} TP) as an Embedded Ionization Source for a Microchip Mass Spectrometer Interface. <i>Analytical Chemistry</i> , 2018, 90, 10111-10116.	6.5	27
30	Microplasma jet mass spectrometry of halogenated organic compounds. <i>Journal of Analytical Atomic Spectrometry</i> , 2004, 19, 990.	3.0	26
31	Sample Analysis with Miniaturized Plasmas. <i>Applied Spectroscopy</i> , 2006, 60, 80A-90A.	2.2	26
32	Development of a novel dielectric barrier microhollow cathode discharge for gaseous atomic emission spectroscopy. <i>Journal of Analytical Atomic Spectrometry</i> , 2012, 27, 677.	3.0	23
33	Mechanistic Understanding Leads to Increased Ionization Efficiency and Selectivity in Dielectric Barrier Discharge Ionization Mass Spectrometry: A Case Study with Perfluorinated Compounds. <i>Analytical Chemistry</i> , 2018, 90, 2725-2731.	6.5	23
34	Soft Argon-Propane Dielectric Barrier Discharge Ionization. <i>Analytical Chemistry</i> , 2018, 90, 3537-3542.	6.5	22
35	Coupling laser desorption with gas chromatography and ion mobility spectrometry for improved olive oil characterisation. <i>Food Chemistry</i> , 2018, 255, 323-331.	8.2	21
36	Electrospray-ionization driven by dielectric polarization. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 391, 555-561.	3.7	20

#	ARTICLE	IF	CITATIONS
37	Atmospheric helium capillary dielectric barrier discharge for soft ionization: broadening of spectral lines, gas temperature and electron number density. <i>Journal of Analytical Atomic Spectrometry</i> , 2014, 29, 498-505.	3.0	20
38	Radiofrequency driven and low cost fabricated microhollow cathode discharge for gaseous atomic emission spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 505-510.	3.0	19
39	Systematic Comparison between Half and Full Dielectric Barrier Discharges Based on the Low Temperature Plasma Probe (LTP) and Dielectric Barrier Discharge for Soft Ionization (DBDI) Configurations. <i>Analytical Chemistry</i> , 2017, 89, 9368-9374.	6.5	19
40	Novel designs of dielectric barrier discharge hydride atomizers for atomic spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2018, 146, 69-76.	2.9	17
41	Detection of multiclass explosives and related compounds in soil and water by liquid chromatography-dielectric barrier discharge ionization-mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 4785-4796.	3.7	17
42	Tuning Soft Ionization Strength for Organic Mass Spectrometry. <i>Analytical Chemistry</i> , 2016, 88, 5538-5541.	6.5	16
43	Analyte-Tailored Controlled Atmosphere Improves Dielectric Barrier Discharge Ionization Mass Spectrometry Performance. <i>Analytical Chemistry</i> , 2019, 91, 3733-3739.	6.5	16
44	Hydride generation atomic absorption spectrometry with a dielectric barrier discharge atomizer: Method optimization and evaluation of analytical performance for tin. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2019, 158, 105630.	2.9	16
45	Time-resolved spectroscopy of a homogeneous dielectric barrier discharge for soft ionization driven by square wave high voltage. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 7973-7981.	3.7	15
46	Atomization of arsenic hydride in a planar dielectric barrier discharge: Behavior of As atoms studied by temporally and spatially resolved optical emission spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2019, 152, 68-73.	2.9	15
47	Study of Controlled Atmosphere Flexible Microtube Plasma Soft Ionization Mass Spectrometry for Detection of Volatile Organic Compounds as Potential Biomarkers in Saliva for Cancer. <i>Analytical Chemistry</i> , 2020, 92, 9722-9729.	6.5	13
48	Time- and spatially resolved emission spectroscopy of the dielectric barrier discharge for soft ionization sustained by a quasi-sinusoidal high voltage. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 6689-6696.	3.7	12
49	Stepwise optimization of a Flexible Microtube Plasma (F μ TP) as an ionization source for Ion Mobility Spectrometry. <i>Analytica Chimica Acta</i> , 2020, 1127, 89-97.	5.4	12
50	Characterization of dielectric barrier discharges for analytical chemistry. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 314003.	2.8	11
51	Standardization of Sandwich-Structured Cu ²⁺ Glass Substrates Embedded in a Flexible Diode Laser ²⁺ Plasma Interface for the Detection of Cholesterol. <i>Analytical Chemistry</i> , 2020, 92, 4663-4671.	6.5	11
52	Spectroscopic measurements of the electron number density, electron temperature and OH(A) rotational distribution in a liquid electrode dielectric barrier discharge. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 114, 20-26.	2.9	10
53	Screening of semifluorinated n α lkanes by gas chromatography coupled to dielectric barrier discharge ionization mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2018, 32, 1092-1098.	1.5	10
54	Detection and Evaluation of Lipid Classes and Other Hydrophobic Compounds Using a Laser Desorption/Plasma Ionization Interface. <i>Analytical Chemistry</i> , 2020, 92, 15212-15220.	6.5	10

#	ARTICLE	IF	CITATIONS
55	Atmospheric Helium Capillary Dielectric Barrier Discharge for Soft Ionization: Determination of Atom Number Densities in the Lowest Excited and Metastable States. <i>Analytical Chemistry</i> , 2014, 86, 857-864.	6.5	9
56	Influences of voltage shape and discharge gas on the temporally and spatially resolved emission characteristics of tin in a planar dielectric barrier discharge. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2019, 161, 105695.	2.9	9
57	Evaluation of a novel controlled-atmosphere flexible microtube plasma soft ionization source for the determination of BTEX in olive oil by headspace-gas chromatography/mass spectrometry. <i>Analytica Chimica Acta</i> , 2021, 1179, 338835.	5.4	8
58	Microdischarges for analytical applications. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 395, 547-548.	3.7	7
59	Temporal evolution of tellurium emission lines in a capillary dielectric barrier discharge after hydride generation. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2020, 171, 105936.	2.9	7
60	3D-printing of a complete modular ion mobility spectrometer. <i>Materials Today</i> , 2021, 44, 58-68.	14.2	7
61	Dielectric Barrier Electrosprayâ€“Polarity Cycle and Trigger. <i>Analytical Chemistry</i> , 2013, 85, 10738-10744.	6.5	6
62	Coupling paper spray ionization with the flexible microtube plasma for the determination of low polar biomarkers in mass spectrometry. <i>Analytica Chimica Acta</i> , 2022, 1201, 339619.	5.4	5
63	Diagnostics of low pressure microplasmas for surface modification. <i>Surface and Coatings Technology</i> , 2011, 205, S381-S383.	4.8	4
64	Neue kosteneffektive Mess- und Regeltechnik fÃ¼r das Numbering von reaktiven PflropfenstrÃ¶mungen in Mikrokana len. <i>Chemie-Ingenieur-Technik</i> , 2015, 87, 1221-1229.	0.8	4
65	Time-resolved line emission spectroscopy and the electrical currents in the plasma jet generated by dielectric barrier discharge for soft ionization. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 113, 152-157.	2.9	4
66	Spatiotemporal characterization of different dielectric barrier discharges designed for soft ionization. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2021, 176, 106037.	2.9	4
67	Measured Effects of Various Electrolyte and Capillary Properties in Dielectric Barrier Electrospray Ionization: Development of a Comprehensive Model. <i>Analytical Chemistry</i> , 2012, 84, 9015-9024.	6.5	3
68	Medium Vacuum Electron Emitter as Soft Atmospheric Pressure Chemical Ionization Source for Organic Molecules. <i>Analytical Chemistry</i> , 2016, 88, 5003-5008.	6.5	3
69	Optical characterization of miniature flexible micro-tube plasma (F _{1/4} TP) ionization source: A dielectric guided discharge. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2021, 181, 106222.	2.9	3
70	Emitter-assigned multi-dielectric barrier-nano-electrospray ionization mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 6537-6542.	3.7	2
71	Detection of illegal treatment of table tennis rackets using gas chromatography coupled to ion mobility spectrometry â€“ A feasibility study. <i>Analytica Chimica Acta</i> , 2021, 1154, 338227.	5.4	2
72	Impedance laser spectroscopy in a small RF-excited neon discharge. <i>Mikrochimica Acta</i> , 1994, 113, 349-355.	5.0	1

#	ARTICLE	IF	CITATIONS
73	Pulsed Blue Laser Diode Thermal Desorption Microplasma Imaging Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2022, 33, 45-53.	2.8	1
74	Ionization of semi-fluorinated n-alkanes in controlled atmosphere using flexible micro-tube plasma (FI-TP) ionization source with square- and sine-wave voltage. Talanta, 2022, 249, 123662.	5.5	1
75	Liquid chromatography-dielectric barrier discharge ionization mass spectrometry for the analysis of neutral lipids of archaeological interest. Journal of Separation Science, 0, , .	2.5	1
76	Technik von Plasmabildschirmen und CD-Spielern für analytische Systeme. Nachrichten Aus Der Chemie, 2002, 50, 1247-1249.	0.0	0
77	New Plasma Ionisation Sources for Mass-Spectrometric Detection of Lipids. , 2018, , 1-4.		0