

# Jiri Dedina

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5058456/publications.pdf>

Version: 2024-02-01

81  
papers

2,246  
citations

186265

28  
h-index

265206

42  
g-index

84  
all docs

84  
docs citations

84  
times ranked

1050  
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomization of As and Se volatile species in a dielectric barrier discharge atomizer after hydride generation: Fate of analyte studied by selected ion flow tube mass spectrometry. <i>Analytica Chimica Acta</i> , 2022, 1190, 339256.	5.4	8
2	Nonplasma devices for atomization and detection of volatile metal species by atomic absorption and fluorescence. , 2022, , 349-401.		0
3	Modular design of a trap-and-atomizer device with a gold absorber for selenium collection after hydride generation. <i>Journal of Analytical Atomic Spectrometry</i> , 2020, 35, 107-116.	3.0	9
4	Generation of tellurium hydride and its atomization in a dielectric barrier discharge for atomic absorption spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2020, 171, 105947.	2.9	15
5	An open-source tool for predictive simulation of diffusion flames in analytical chemistry. <i>Journal of Analytical Atomic Spectrometry</i> , 2020, 35, 1464-1471.	3.0	3
6	Selenium preconcentration in a gold amalgamator after hydride generation for atomic spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2020, 35, 2132-2141.	3.0	8
7	Atomization of lead hydride in a dielectric barrier discharge atomizer: Optimized for atomic absorption spectrometry and studied by laser-induced fluorescence. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2020, 166, 105819.	2.9	14
8	Atomic fluorescence spectrometry for ultrasensitive determination of bismuth based on hydride generation – the role of excitation source, interference filter and flame atomizers. <i>Journal of Analytical Atomic Spectrometry</i> , 2020, 35, 993-1002.	3.0	12
9	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
10	Feasibility of <i>in situ</i> trapping of selenium hydride in a DBD atomizer for ultrasensitive Se determination by atomic absorption spectrometry studied with a <sup>75</sup> Se radioactive indicator. <i>Journal of Analytical Atomic Spectrometry</i> , 2019, 34, 193-202.	3.0	15
11	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
12	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
13	Radical theory of hydride atomization confirmed after four decades – determination of H radicals in a quartz hydride atomizer by two-photon absorption laser-induced fluorescence. <i>Chemical Science</i> , 2019, 10, 3643-3648.	7.4	13
14	Investigation of hydride generation from arsenosugars - Is it feasible for speciation analysis?. <i>Analytica Chimica Acta</i> , 2018, 1008, 8-17.	5.4	15
15	Trace determination of antimony by hydride generation atomic absorption spectrometry with analyte preconcentration/atomization in a dielectric barrier discharge atomizer. <i>Analytica Chimica Acta</i> , 2018, 1010, 11-19.	5.4	36
16	Diethyldithiocarbamate enhanced chemical generation of volatile palladium species, their characterization by AAS, ICP-MS, TEM and DART-MS and proposed mechanism of action. <i>Analytica Chimica Acta</i> , 2018, 1005, 16-26.	5.4	28
17	Behavior of selenium hydride in heated quartz tube and dielectric barrier discharge atomizers. <i>Analytica Chimica Acta</i> , 2018, 1028, 11-21.	5.4	19
18	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

#	ARTICLE	IF	CITATIONS
19	Chemical generation of volatile species of copper – Optimization, efficiency and investigation of volatile species nature. <i>Analytica Chimica Acta</i> , 2017, 977, 10-19.	5.4	16
20	Sample preparation for arsenic speciation analysis in baby food by generation of substituted arsines with atomic absorption spectrometry detection. <i>Talanta</i> , 2017, 175, 406-412.	5.5	22
21	Demethylation of Methylated Arsenic Species during Generation of Arsanes with Tetrahydridoborate( $\text{I}^-$ ) in Acidic Media. <i>Analytical Chemistry</i> , 2016, 88, 6366-6373.	6.5	17
22	Preconcentration and Atomization of Arsane in a Dielectric Barrier Discharge with Detection by Atomic Absorption Spectrometry. <i>Analytical Chemistry</i> , 2016, 88, 6064-6070.	6.5	54
23	Atomization of Bismuthane in a Dielectric Barrier Discharge: A Mechanistic Study. <i>Analytical Chemistry</i> , 2016, 88, 1804-1811.	6.5	28
24	Achieving 100% Efficient Postcolumn Hydride Generation for As Speciation Analysis by Atomic Fluorescence Spectrometry. <i>Analytical Chemistry</i> , 2016, 88, 4041-4047.	6.5	28
25	Flame-in-gas-shield and miniature diffusion flame hydride atomizers for atomic fluorescence spectrometry: optimization and comparison. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 109, 16-23.	2.9	19
26	Gold volatile species atomization and preconcentration in quartz devices for atomic absorption spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 103-104, 155-163.	2.9	9
27	A miniaturized cryogenic trap design for collection of arsanes. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 111, 46-51.	2.9	9
28	Dielectric barrier discharge plasma atomizer for hydride generation atomic absorption spectrometry – Performance evaluation for selenium. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 111, 57-63.	2.9	37
29	Sapphire: a better material for atomization and in situ collection of silver volatile species for atomic absorption spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 108, 61-67.	2.9	5
30	Quantification of potassium levels in cells treated with Bordetella adenylate cyclase toxin. <i>Analytical Biochemistry</i> , 2014, 450, 57-62.	2.4	31
31	Determination of Bismuth by Dielectric Barrier Discharge Atomic Absorption Spectrometry Coupled with Hydride Generation: Method Optimization and Evaluation of Analytical Performance. <i>Analytical Chemistry</i> , 2014, 86, 9620-9625.	6.5	64
32	Speciation Analysis of Arsenic by Selective Hydride Generation-Cryotrapping-Atomic Fluorescence Spectrometry with Flame-in-Gas-Shield Atomizer: Achieving Extremely Low Detection Limits with Inexpensive Instrumentation. <i>Analytical Chemistry</i> , 2014, 86, 10422-10428.	6.5	50
33	Selective hydride generation-cryotrapping-ICP-MS for arsenic speciation analysis at picogram levels: analysis of river and sea water reference materials and human bladder epithelial cells. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 1456.	3.0	47
34	Ultratrace determination of tin by hydride generation in-atomizer trapping atomic absorption spectrometry. <i>Analytica Chimica Acta</i> , 2013, 804, 50-58.	5.4	27
35	Hydride generation – in-atomizer collection of Pb in quartz tube atomizers for atomic absorption spectrometry – a $^{212}\text{Pb}$ radiotracer study. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 344.	3.0	23
36	A glance at achievements in analytical atomic spectrometry in Central and Eastern Europe. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 175-176.	3.0	5

#	ARTICLE	IF	CITATIONS
37	A sapphire tube atomizer for on-line atomization and in situ collection of bismuthine for atomic absorption spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 593.	3.0	9
38	Selective generation of substituted arsines-cryotrapping-atomic absorption spectrometry for arsenic speciation analysis in N-methylglucamine antimonate. <i>Journal of Analytical Atomic Spectrometry</i> , 2012, 27, 1734.	3.0	12
39	Direct analysis and stability of methylated trivalent arsenic metabolites in cells and tissues. <i>Metallomics</i> , 2011, 3, 1347.	2.4	29
40	Direct Analysis of Methylated Trivalent Arsenicals in Mouse Liver by Hydride Generation-Cryotrapping-Atomic Absorption Spectrometry. <i>Chemical Research in Toxicology</i> , 2011, 24, 478-480.	3.3	32
41	Mechanisms of chemical generation of volatile hydrides for trace element determination (IUPAC) Tj ETQq1 1 0.784314 rgBT /Overlock 1.9	1.9	90
42	Spectral interferences of oxygen and water molecules in hydride generation atomic absorption spectrometry with quartz atomizers: Comparison of preconcentration and on-line atomization modes for As and Se determination. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 2230.	3.0	16
43	Gold volatile compound generation: optimization, efficiency and characterization of the generated form. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 828-837.	3.0	37
44	Hydride generation in-atomizer collection atomic absorption spectrometry for the determination of antimony in acetic acid leachates from pewter cups. <i>Talanta</i> , 2011, 87, 255-261.	5.5	10
45	Modular L-design of hydride atomizers for atomic absorption spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2009, 64, 717-720.	2.9	7
46	Multiple microflame quartz tube atomizer: Study and minimization of interferences in quartz tube atomizers in hydride generation atomic absorption spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2009, 64, 173-178.	2.9	17
47	Stibine and bismuthine trapping in quartz tube atomizers for atomic absorption spectrometry. Part 2: a radiotracer study. <i>Journal of Analytical Atomic Spectrometry</i> , 2009, 24, 1222.	3.0	20
48	Oxidation state specific generation of arsines from methylated arsenicals based on l-cysteine treatment in buffered media for speciation analysis by hydride generation-automated cryotrapping-gas chromatography-atomic absorption spectrometry with the multiatomizer. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2008, 63, 396-406.	2.9	81
49	Stibine and bismuthine trapping in quartz tube atomizers for atomic absorption spectrometry " Method optimization and analytical applications. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2008, 63, 843-849.	2.9	33
50	Speciation analysis of arsenic in biological matrices by automated hydride generation-cryotrapping-atomic absorption spectrometry with multiple microflame quartz tube atomizer (multiatomizer). <i>Journal of Analytical Atomic Spectrometry</i> , 2008, 23, 342-351.	3.0	102
51	Speciation of Arsenic in Exfoliated Urinary Bladder Epithelial Cells from Individuals Exposed to Arsenic in Drinking Water. <i>Environmental Health Perspectives</i> , 2008, 116, 1656-1660.	6.0	33
52	Metal furnace heated by flame as a hydride atomizer for atomic absorption spectrometry: Sb determination in environmental and pharmaceutical samples. <i>Talanta</i> , 2007, 73, 621-628.	5.5	19
53	Atomization of volatile compounds for atomic absorption and atomic fluorescence spectrometry: On the way towards the ideal atomizer. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2007, 62, 846-872.	2.9	86
54	Examination of the effects of arsenic on glucose homeostasis in cell culture and animal studies: Development of a mouse model for arsenic-induced diabetes. <i>Toxicology and Applied Pharmacology</i> , 2007, 222, 305-314.	2.8	121

#	ARTICLE	IF	CITATIONS
55	Arsine and selenium hydride trapping in a novel quartz device for atomic-absorption spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 388, 793-800.	3.7	39
56	In situ trapping of bismuthine in externally heated quartz tube atomizers for atomic absorption spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2006, 21, 208-210.	3.0	30
57	Organic solvents as interferences in arsenic determination by hydride generation atomic absorption spectrometry with flame atomization. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2006, 61, 525-531.	2.9	17
58	In situ trapping of stibine in externally heated quartz tube atomizers for atomic absorption spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2005, 60, 859-864.	2.9	41
59	Mechanism of atomization interference by oxygen at trace level in miniature flame hydride atomizers. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2005, 60, 1270-1279.	2.9	15
60	Effect of contamination by oxygen at trace level in miniature flame hydride atomizers. <i>Journal of Analytical Atomic Spectrometry</i> , 2005, 20, 40-45.	3.0	15
61	The efficiency of the electrochemical generation of volatile hydrides studied by radiometry and atomic absorption spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2004, 59, 125-133.	2.9	24
62	Stibine preconcentration in a quartz trap with subsequent atomization in the quartz multiatomizer for atomic absorption spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2004, 19, 255-259.	3.0	28
63	Continuous flow chemical vapour generation of silver for atomic absorption spectrometry using tetrahydroborate(iii) reduction system performance and assessment of the efficiency using instrumental neutron activation analysis. <i>Journal of Analytical Atomic Spectrometry</i> , 2002, 17, 52-56.	3.0	31
64	Mechanism of selenium hydride atomization, fate of free atoms and temperature distribution in an argon shielded, highly fuel-rich, hydrogen-oxygen diffusion micro-flame studied by atomic absorption spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2002, 17, 253-257.	3.0	13
65	On-line atomization of selenium hydride in graphite furnaces: mechanism and interferences. <i>Journal of Analytical Atomic Spectrometry</i> , 2002, 17, 1323-1329.	3.0	4
66	Atom diffusion in furnaces models and measurements. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2002, 57, 535-549.	2.9	6
67	Multiple microflame a new approach to hydride atomization for atomic absorption spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2000, 15, 301-304.	3.0	54
68	Interferences in hydride atomization studied by atomic absorption and atomic fluorescence spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 1996, 51, 481-498.	2.9	38
69	On-line atomization of selenium hydride in graphite furnaces: estimate of atomic absorption coefficient and spectroscopic temperature. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 1996, 51, 1107-1119.	2.9	15
70	Quartz tube atomizers for hydride generation atomic absorption spectrometry: fate of free arsenic atoms. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 1993, 48, 301-314.	2.9	14
71	Serum selenium in adult Czechoslovak (central bohemia) population. <i>Biological Trace Element Research</i> , 1993, 37, 91-99.	3.5	37
72	Quartz tube atomizers for hydride generation atomic absorption spectrometry: mechanism for atomization of arsine. Invited lecture. <i>Journal of Analytical Atomic Spectrometry</i> , 1992, 7, 307-314.	3.0	41

#	ARTICLE	IF	CITATIONS
73	Quartz tube atomizers for hydride generation atomic absorption spectrometry: mechanism of selenium hydride atomization and fate of free atoms. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 1992, 47, 689-700.	2.9	30
74	Atomic absorption coefficient of the Se 196 nm line—theoretical calculation and experimental evaluation. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 1991, 46, 379-391.	2.9	26
75	Atomisation of selenium hydride in the graphite furnace. <i>Journal of Analytical Atomic Spectrometry</i> , 1989, 4, 143-148.	3.0	22
76	Determination of selenium by graphite furnace atomic absorption spectrometry. Part 1. Interaction between selenium and carbon. <i>Journal of Analytical Atomic Spectrometry</i> , 1987, 2, 287-291.	3.0	21
77	Determination of selenium by graphite furnace atomic absorption spectrometry. Part 2. Role of nickel for analyte stability. <i>Journal of Analytical Atomic Spectrometry</i> , 1987, 2, 435-439.	3.0	22
78	Optimization of hydride generation methods for AAS. <i>Fresenius Zeitschrift für Analytische Chemie</i> , 1986, 323, 771-782.	0.8	28
79	Stability of dicyclohexylcarbodiimide in an aqueous medium. The effect of mitochondrial phospholipids. <i>Collection of Czechoslovak Chemical Communications</i> , 1983, 48, 662-667.	1.0	1
80	Interference of volatile hydride-forming elements in selenium determination by atomic absorption spectrometry with hydride generation. <i>Analytical Chemistry</i> , 1982, 54, 2097-2102.	6.5	122
81	Determination of trace concentrations of mercury in biological materials after digestion under pressure in nitric acid catalysed by vanadium pentoxide. <i>Analyst</i> , 1980, 105, 48.	3.5	13