Jiri Dedina

List of Publications by Year
in descending order

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81	2,246	186265	265206
papers	citations	28 h-index	42 g-index

84	84	84	1050
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Interference of volatile hydride-forming elements in selenium determination by atomic absorption spectrometry with hydride generation. Analytical Chemistry, 1982, 54, 2097-2102.	6.5	122
2	Examination of the effects of arsenic on glucose homeostasis in cell culture and animal studies: Development of a mouse model for arsenic-induced diabetes. Toxicology and Applied Pharmacology, 2007, 222, 305-314.	2.8	121
3	Speciation analysis of arsenic in biological matrices by automated hydride generation-cryotrapping-atomic absorption spectrometry with multiple microflame quartz tube atomizer (multiatomizer). Journal of Analytical Atomic Spectrometry, 2008, 23, 342-351.	3.0	102
4	Mechanisms of chemical generation of volatile hydrides for trace element determination (IUPAC) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	1.9	90
5	Atomization of volatile compounds for atomic absorption and atomic fluorescence spectrometry: On the way towards the ideal atomizer. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 846-872.	2.9	86
6	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. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 396-406.	2.9	81
7	Determination of Bismuth by Dielectric Barrier Discharge Atomic Absorption Spectrometry Coupled with Hydride Generation: Method Optimization and Evaluation of Analytical Performance. Analytical Chemistry, 2014, 86, 9620-9625.	6.5	64
8	Multiple microflameâ€"a new approach to hydride atomization for atomic absorption spectrometry. Journal of Analytical Atomic Spectrometry, 2000, 15, 301-304.	3.0	54
9	Preconcentration and Atomization of Arsane in a Dielectric Barrier Discharge with Detection by Atomic Absorption Spectrometry. Analytical Chemistry, 2016, 88, 6064-6070.	6.5	54
10	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. Analytical Chemistry, 2014, 86, 10422-10428.	6.5	50
11	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. Journal of Analytical Atomic Spectrometry, 2013, 28, 1456.	3.0	47
12	Quartz tube atomizers for hydride generation atomic absorption spectrometry: mechanism for atomization of arsine. Invited lecture. Journal of Analytical Atomic Spectrometry, 1992, 7, 307-314.	3.0	41
13	In situ trapping of stibine in externally heated quartz tube atomizers for atomic absorption spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 859-864.	2.9	41
14	Arsine and selenium hydride trapping in a novel quartz device for atomic-absorption spectrometry. Analytical and Bioanalytical Chemistry, 2007, 388, 793-800.	3.7	39
15	Interferences in hydride atomization studied by atomic absorption and atomic fluorescence spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1996, 51, 481-498.	2.9	38
16	Serum selenium in adult Czechoslovak (central bohemia) population. Biological Trace Element Research, 1993, 37, 91-99.	3.5	37
17	Gold volatile compound generation: optimization, efficiency and characterization of the generated form. Journal of Analytical Atomic Spectrometry, 2011, 26, 828-837.	3.0	37
18	Dielectric barrier discharge plasma atomizer for hydride generation atomic absorption spectrometryâ€"Performance evaluation for selenium. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 111, 57-63.	2.9	37

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19	Trace determination of antimony by hydride generation atomic absorption spectrometry with analyte preconcentration/atomization in a dielectric barrier discharge atomizer. Analytica Chimica Acta, 2018, 1010, 11-19.	5.4	36
20	Stibine and bismuthine trapping in quartz tube atomizers for atomic absorption spectrometry â€" Method optimization and analytical applications. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 843-849.	2.9	33
21	Speciation of Arsenic in Exfoliated Urinary Bladder Epithelial Cells from Individuals Exposed to Arsenic in Drinking Water. Environmental Health Perspectives, 2008, 116, 1656-1660.	6.0	33
22	Direct Analysis of Methylated Trivalent Arsenicals in Mouse Liver by Hydride Generation-Cryotrapping-Atomic Absorption Spectrometry. Chemical Research in Toxicology, 2011, 24, 478-480.	3.3	32
23	Continuous flow chemical vapour generation of silver for atomic absorption spectrometry using tetrahydroborate(iii) reductionâ€"system performance and assessment of the efficiency using instrumental neutron activation analysis. Journal of Analytical Atomic Spectrometry, 2002, 17, 52-56.	3.0	31
24	Quantification of potassium levels in cells treated with Bordetella adenylate cyclase toxin. Analytical Biochemistry, 2014, 450, 57-62.	2.4	31
25	Quartz tube atomizers for hydride generation atomic absorption spectrometry: mechanism of selenium hydride atomization and fate of free atoms. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1992, 47, 689-700.	2.9	30
26	In situ trapping of bismuthine in externally heated quartz tube atomizers for atomic absorption spectrometry. Journal of Analytical Atomic Spectrometry, 2006, 21, 208-210.	3.0	30
27	Direct analysis and stability of methylated trivalent arsenic metabolites in cells and tissues. Metallomics, 2011, 3, 1347.	2.4	29
28	Optimization of hydride generation methods for AAS. Fresenius Zeitschrift FÃ¼r Analytische Chemie, 1986, 323, 771-782.	0.8	28
29	Stibine preconcentration in a quartz trap with subsequent atomization in the quartz multiatomizer for atomic absorption spectrometry. Journal of Analytical Atomic Spectrometry, 2004, 19, 255-259.	3.0	28
30	Atomization of Bismuthane in a Dielectric Barrier Discharge: AÂMechanistic Study. Analytical Chemistry, 2016, 88, 1804-1811.	6.5	28
31	Achieving 100% Efficient Postcolumn Hydride Generation for As Speciation Analysis by Atomic Fluorescence Spectrometry. Analytical Chemistry, 2016, 88, 4041-4047.	6.5	28
32	Diethyldithiocarbamate enhanced chemical generation of volatile palladium species, their characterization by AAS, ICP-MS, TEM and DART-MS and proposed mechanism of action. Analytica Chimica Acta, 2018, 1005, 16-26.	5.4	28
33	Ultratrace determination of tin by hydride generation in-atomizer trapping atomic absorption spectrometry. Analytica Chimica Acta, 2013, 804, 50-58.	5.4	27
34	Atomic absorption coefficient of the Se 196 nm lineâ€"theoretical calculation and experimental evaluation. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1991, 46, 379-391.	2.9	26
35	The efficiency of the electrochemical generation of volatile hydrides studied by radiometry and atomic absorption spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 125-133.	2.9	24
36	Hydride generation â€“ in-atomizer collection of Pb in quartz tube atomizers for atomic absorption spectrometry â€“ a 212Pb radiotracer study. Journal of Analytical Atomic Spectrometry, 2013, 28, 344.	3.0	23

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37	Determination of selenium by graphite furnace atomic absorption spectrometry. Part 2. Role of nickel for analyte stability. Journal of Analytical Atomic Spectrometry, 1987, 2, 435-439.	3.0	22
38	Atomisation of selenium hydride in the graphite furnace. Journal of Analytical Atomic Spectrometry, 1989, 4, 143-148.	3.0	22
39	Sample preparation for arsenic speciation analysis in baby food by generation of substituted arsines with atomic absorption spectrometry detection. Talanta, 2017, 175, 406-412.	5.5	22
40	Determination of selenium by graphite furnace atomic absorption spectrometry. Part 1. Interaction between selenium and carbon. Journal of Analytical Atomic Spectrometry, 1987, 2, 287-291.	3.0	21
41	Stibine and bismuthine trapping in quartz tube atomizers for atomic absorption spectrometry. Part 2: a radiotracer study. Journal of Analytical Atomic Spectrometry, 2009, 24, 1222.	3.0	20
42	Metal furnace heated by flame as a hydride atomizer for atomic absorption spectrometry: Sb determination in environmental and pharmaceutical samples. Talanta, 2007, 73, 621-628.	5.5	19
43	Flame-in-gas-shield and miniature diffusion flame hydride atomizers for atomic fluorescence spectrometry: optimization and comparison. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 109, 16-23.	2.9	19
44	Behavior of selenium hydride in heated quartz tube and dielectric barrier discharge atomizers. Analytica Chimica Acta, 2018, 1028, 11-21.	5.4	19
45	Organic solvents as interferents in arsenic determination by hydride generation atomic absorption spectrometry with flame atomization. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2006, 61, 525-531.	2.9	17
46	Multiple microflame quartz tube atomizer: Study and minimization of interferences in quartz tube atomizers in hydride generation atomic absorption spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 173-178.	2.9	17
47	Demethylation of Methylated Arsenic Species during Generation of Arsanes with Tetrahydridoborate(1â^') in Acidic Media. Analytical Chemistry, 2016, 88, 6366-6373.	6.5	17
48	Novel designs of dielectric barrier discharge hydride atomizers for atomic spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2018, 146, 69-76.	2.9	17
49	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. Journal of Analytical Atomic Spectrometry, 2011, 26, 2230.	3.0	16
50	Chemical generation of volatile species of copper â€“ Optimization, efficiency and investigation of volatile species nature. Analytica Chimica Acta, 2017, 977, 10-19.	5.4	16
51	Hydride generation atomic absorption spectrometry with a dielectric barrier discharge atomizer: Method optimization and evaluation of analytical performance for tin. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2019, 158, 105630.	2.9	16
52	On-line atomization of selenium hydride in graphite furnaces: estimate of atomic absorption coefficient and spectroscopic temperature. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1996, 51, 1107-1119.	2.9	15
53	Mechanism of atomization interference by oxygen at trace level in miniature flame hydride atomizers. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 1270-1279.	2.9	15
54	Effect of contamination by oxygen at trace level in miniature flame hydride atomizers. Journal of Analytical Atomic Spectrometry, 2005, 20, 40-45.	3.0	15

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55	Investigation of hydride generation from arsenosugars - Is it feasible for speciation analysis?. Analytica Chimica Acta, 2018, 1008, 8-17.	5.4	15
56	Feasibility of in situ trapping of selenium hydride in a DBD atomizer for ultrasensitive Se determination by atomic absorption spectrometry studied with a ⁷⁵Se radioactive indicator. Journal of Analytical Atomic Spectrometry, 2019, 34, 193-202.	3.0	15
57	Atomization of arsenic hydride in a planar dielectric barrier discharge: Behavior of As atoms studied by temporally and spatially resolved optical emission spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2019, 152, 68-73.	2.9	15
58	Generation of tellurium hydride and its atomization in a dielectric barrier discharge for atomic absorption spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2020, 171, 105947.	2.9	15
59	Quartz tube atomizers for hydride generation atomic absorption spectrometry: fate of free arsenic atoms. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1993, 48, 301-314.	2.9	14
60	Atomization of lead hydride in a dielectric barrier discharge atomizer: Optimized for atomic absorption spectrometry and studied by laser-induced fluorescence. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2020, 166, 105819.	2.9	14
61	Determination of trace concentrations of mercury in biological materials after digestion under pressure in nitric acid catalysed by vanadium pentoxide. Analyst, The, 1980, 105, 48.	3.5	13
62	Mechanism of selenium hydride atomization, fate of free atoms and temperature distribution in an argon shielded, highly fuel-rich, hydrogenâ€“oxygen diffusion micro-flame studied by atomic absorption spectrometry. Journal of Analytical Atomic Spectrometry, 2002, 17, 253-257.	3.0	13
63	Radical theory of hydride atomization confirmed after four decades â€“ determination of H radicals in a quartz hydride atomizer by two-photon absorption laser-induced fluorescence. Chemical Science, 2019, 10, 3643-3648.	7.4	13
64	Selective generation of substituted arsines-cryotrapping-atomic absorption spectrometry for arsenic speciation analysis in N-methylglucamine antimonate. Journal of Analytical Atomic Spectrometry, 2012, 27, 1734.	3.0	12
65	Atomic fluorescence spectrometry for ultrasensitive determination of bismuth based on hydride generation â€“ the role of excitation source, interference filter and flame atomizers. Journal of Analytical Atomic Spectrometry, 2020, 35, 993-1002.	3.0	12
66	Hydride generation in-atomizer collection atomic absorption spectrometry for the determination of antimony in acetic acid leachates from pewter cups. Talanta, 2011, 87, 255-261.	5.5	10
67	A sapphire tube atomizer for on-line atomization and in situ collection of bismuthine for atomic absorption spectrometry. Journal of Analytical Atomic Spectrometry, 2013, 28, 593.	3.0	9
68	Gold volatile species atomization and preconcentration in quartz devices for atomic absorption spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 103-104, 155-163.	2.9	9
69	A miniaturized cryogenic trap design for collection of arsanes. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 111, 46-51.	2.9	9
70	Influences of voltage shape and discharge gas on the temporally and spatially resolved emission characteristics of tin in a planar dielectric barrier discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2019, 161, 105695.	2.9	9
71	Modular design of a trap-and-atomizer device with a gold absorber for selenium collection after hydride generation. Journal of Analytical Atomic Spectrometry, 2020, 35, 107-116.	3.0	9
72	Selenium preconcentration in a gold â€œamalgamatorâ€•after hydride generation for atomic spectrometry. Journal of Analytical Atomic Spectrometry, 2020, 35, 2132-2141.	3.0	8

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73	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. Analytica Chimica Acta, 2022, 1190, 339256.	5.4	8
74	Modular L-design of hydride atomizers for atomic absorption spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 717-720.	2.9	7
75	Atom diffusion in furnaces â€" models and measurements. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2002, 57, 535-549.	2.9	6
76	A glance at achievements in analytical atomic spectrometry in Central and Eastern Europe. Journal of Analytical Atomic Spectrometry, 2013, 28, 175-176.	3.0	5
77	Sapphire: a better material for atomization and in situ collection of silver volatile species for atomic absorption spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 108, 61-67.	2.9	5
78	On-line atomization of selenium hydride in graphite furnaces: mechanism and interferences. Journal of Analytical Atomic Spectrometry, 2002, 17, 1323-1329.	3.0	4
79	An open-source tool for predictive simulation of diffusion flames in analytical chemistry. Journal of Analytical Atomic Spectrometry, 2020, 35, 1464-1471.	3.0	3
80	Stability of dicyclohexylcarbodiimide in an aqueous medium. The effect of mitochondrial phospholipids. Collection of Czechoslovak Chemical Communications, 1983, 48, 662-667.	1.0	1
81	Nonplasma devices for atomization and detection of volatile metal species by atomic absorption and fluorescence. , 2022, , 349-401.		0