Prof. dr. Tiberiu Frențiu

Fisa de autoevaluare

Lista publicatiilor considerate Anexa 1. Lista celor 50 de lucrări selectate numerotate 1-50

Factor de impact actualizați anul 2025.

1. Frenţiu, T.*; Mihălţan, A. I.; Ponta, M.; Darvasi, E.
   Mercury Determination in non- and Biodegradable materials by Cold vapor Capacitively Coupled Plasma Microtorch Atomic Emission Spectrometry
   Journal of Hazardous Materials, **2011**, *193*, 65 – 69 (FI = 11.3) ISSN 0304-3894

2. Frenţiu, T.*; Ponta, M.; Darvasi, E.; Frenţiu, M.; Cordoş, E.
   Analytical capability of a medium power capacitively coupled plasma for the multielemental determination in multimineral/multivitamin preparations by atomic emission spectrometry
   Food Chemistry, **2012,** *134,* 2447 – 2552 (FI = 9.8) ISSN 0308-8146

3. Zsigmond, A. R.; Frenţiu, T.*; Ponta, M.; Frenţiu, M.; Petreuş, D.
   Simple and robust method for lithium traces determination in drinking water by atomic emission using low-power capacitively coupled plasma microtorch and microspectrometer
   Food Chemistry, **2013**, *141,* 3621 – 3626 (FI = 9.8) ISSN 0308-8146

4. Butaciu, S.; Șenilă, M.; Sârbu, C.; Ponta, M.; Tănăselia, C.; Sima, M.; Frențiu, T.*
   Chemical modeling of natural groundwater contamination with arsenic and co-occurring species by combining diagrams and unsupervised multivariate statistical approaches.
   Chemosphere, **2017**, *172*, 127 – 137 (FI = 8.1) ISSN 0045-6535

5. Frențiu, T.; Ponta, M.; Sârbu, C.*
   Prediction of the of Hg fate and other contaminants in soil around a former chlor-alkali Plant using Fuzzy Hierachical Cross-Clustering aproach
   Chemosphere, **2015***, 138*, 95 – 103 (FI = 8.1) ISSN 0045-6535

6. Taloș, F.; Șenilă, M.; Frențiu, T.; Simon, S.*
   Effect of titanium ions on the release rate and uptake at the interface of silica based xerogels with simulated body fluid
   Corrosion Science, **2013**, *72*, 41 – 46 (FI = 8.5) ISSN 0010-938X

7. Covaci, E.; Șenilă, M.; Ponta, M.; Darvasi, E.; Frențiu, M.; Frentiu, T.*
   Mercury speciation in seafood using non-chromatographic chemical vapor generation

capacitively coupled plasma microtorch optical emission spectrometry method– evaluation of methylmercury exposure.
Food Control, **2017**, *82*, 266 – 273 (FI = 6.3) ISSN 0956-7135

8. Butaciu, S.; Frențiu, T.*; Şenilă, M.; Darvasi, E., Cadar, S.; Ponta,M.; Petreuş,D.; Etz,R.; Frenţiu, M.
Determination of Cd in food using an electrothermal vaporization capacitively coupled plasma microtorch optical emission microspectrometer: compliance with European legislation and comparison with graphite furnace atomic absorption spectrometry
Food Control, **2016**, *61*, 227 – 234 (FI = 6.3) ISSN 0956-7135

9. Angyus S. B., Darvasi E., Ponta, M., Petreus D., Etz R., Senila M., Frentiu M., Frentiu T.*
Interference-free, green microanalytical method for total mercury and methylmercury determination in biological and environmental samples using small-sized electrothermal vaporization capacitively coupled plasma microtorch optical emission spectrometry,
Talanta, **2020**, *217*, 121067 (FI = 6.1) ISSN 0039-9140

10. Covaci, E.; Şenilă, M.; Ponta, M.; Darvasi, E.; Petreuș, D.; Frențiu, M.; Frenţiu, T.*
Methylmercury determination in seafood by photochemical vapor generation capacitively coupled plasma microtorch optical emission spectrometry
Talanta, **2017**, *170*, 464 – 472 (FI = 6.1) ISSN 0039-9140

11. Frenţiu, T.*; Darvasi, E.; Butaciu, S.; Ponta, M.; Petreuș, D.; Mihălţan, A. I.; Frenţiu M.
A miniaturized capacitively coupled plasma microtorch optical emission spectrometer and a Rh coiled filament as small-sized electrothermal vaporization device for simultaneous determination of volatile elements from liquid microsamples: spectral and analytical characterization
Talanta, **2014**, ***129***, 72 – 78 (FI = 6.1) ISSN 0039-9140

12. Mihălţan, A. I. Frenţiu, T.*; Ponta, M.; Petreuş, D.; Frenţiu, M.; Darvasi, E.; Măruţoiu, C.
Arsenic and antimony determination in non- and biodegradable matertials by hydride generation capacitively coupled plasma microtorch optical emission spectrometry
Talanta, **2013**, *109,* 84 – 90 (FI = 6.1) ISSN 0039-9140

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Preliminary Investigation of a Medium Power Argon Radiofrequency Capacitively Coupled Plasma as Atomization Cell in Atomic Fluorescence Spectrometry of Cadmium
Talanta, **2008**, *76*, 1170 – 176 (FI = 6.1) ISSN 0039-9140

14. Cordoş, E. A.*; Frenţiu, T.; Rusu, A-M.; Anghel, S. D.; Fodor, A.; Ponta, M.
Analytical Characterization of a Capacitively Coupled Plasma Torch with Central Tube Electrode.
Talanta, **1999**, *48*, 827 – 837 (FI = 6.1) ISSN 0039-9140

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Application in Atomic Emission Spectrometry for the Determination of Aluminium in Water Samples
Microchimica Acta, **2004**, *147*, 93 – 103 (FI = 5.3) ISSN 0026-3672

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Statistical evaluation of Cu, Mn and Zn determinations in biological samples by Radiofrequency capacitively coupled plasma atomic emission spectrometry using the Bland and Altman test
Microchimica Acta, **2003**, *143*, 245 – 254 (FI = 5.3) ISSN 0026-3672

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Diffusive Gradients in Thin-films as passive sampling tool for the measurement of labile species in fractionation analysis of metals (Fe, Mn, Cu, Zn and Pb) in beer
Microchemical Journal, **2024**, 198, numar articol 110195 (FI = 5.1) ISSN 0026-265X

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Eco-scale non-chromatographic method for mercury speciation in fish using formic acid extraction and UV–Vis photochemical vapor generation capacitively coupled plasma microtorch optical emission spectrometry
Microchemical Journal, **2018**, *141*, 155-162 (FI = 5.1) ISSN 0026-265X

19. Frențiu, T.*; Darvasi, E.; Butaciu, S.; Ponta, M.; Petreuş, D.; Etz, R.; Frenţiu, M.
Application of a low-cost electrothermal vaporization capacitively coupled plasma microtorch for simultaneous determination of Cd and Pb in environmental samples
Microchemical Journal, **2015***, 121*, 192 – 198 (FI = 5.1) ISSN 0026-265X

20. Frențiu, T.*; Mihălţan, A. I.; Şenilă, M.; Darvasi, E.; Ponta, M.; Frențiu, M.; Petreuş, D.
New method for mercury determination in microwave digested soil samples based on cold vapor capacitively coupled plasma microtorch optical emission spectrometry: comparison with atomic fluorescence spectrometry
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Characteristic Temperatures and Electron Number Densities in An r.f. Capacitively Coupled Plasma
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Chemistry Central Journal, **2013**, *7*, 43 (FI = 4.215) ISSN 1752-153X

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Characterization and assesment of potential environmental risk of tailings stored in seven inpoundments in the Aries River basin, western Romania
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Molecules, **2021**, 26, numar articol 2642 (FI = 4.6) eISSN 1420-3049

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Application of Inductively Coupled Plasma Spectrometric Techniques and Multivariate Statistical Analysis in the Hydrogeochemical Profiling of Caves-Case Study Closani, Romania
Molecules, **2021**, 26, numar articol 6788 (FI = 4.6) eISSN 1420-3049

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Elemental Speciation of Pb, Zn and Cu in sedimented Dust and Soil Using a Capacitively Coupled Plasma Atomic Emission Spectrometer as Detector
Analyst, **1995**, *120*, 725 – 731 (FI = 3.3) ISSN 0003-2654

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Spatial variability and hydro/geochemical profiling of the elemental composition of mineral deposits and drip water from caves using unsupervised chemometric modelling
Chemical Geology, **2024**, 646, numar articol 121903 (FI = 3.6) ISSN 0009-2541

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Journal of Endodontics, **2018**, *44*, 280 – 285 (FI = 3.6) ISSN 0099-2399

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Spectrochimica Acta Part B, **2010**, *65B,* 565 – 570 (FI = 3.8) ISSN 0584-8547

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Journal of Analytical Atomic Spectrometry, **2024**, *39*, 141-152 (FI = 3.1) ISSN 0267-9477

35. Chirita, L.; Covaci, E.; Mot, A.; Ponta, M.; Gandea, A.; Frentiu, T.*
Determination of selenium in food and environmental samples by hydride generation high-resolution continuum source quartz furnace atomic absorption spectrometry
Journal of Analytical Atomic Spectrometry, **2021**, 36, 267-272 (FI = 3.1) ISSN 0267-9477

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Simultaneous determination of As and Sb in soil using hydride generation capacitively coupled plasma microtorch optical emission spectrometry – comparison with inductively coupled plasma optical emission spectrometry .
Journal of Analytical Atomic Spectrometry, **2014**, ***29***, 1880 – 1888 (FI = 3.1) ISSN 0267-9477

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A novel analytical system with a capacitively coupled plasma microtorch and a gold filament microcollector for the determination of total Hg in water by cold vapour atomic emission spectrometry
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Evaluation of Figures of Merit for Zn Determination in Environmental and Biological Samples Using EDL Excited AFS in a new radiofrequency capacitively coupled plasma
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Unified analysis method for total and inorganic As determination in foodstuffs by hydride generation high-resolution continuum source quartz tube atomic absorption spectrometry
Analytical Methods, **2023***, 15*, 1734 – 1746 (FI = 2.6) ISSN 1759-9660

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Mercury determination in various environmental, food and material complex matrices using unified operating conditions for a cold vapor generation high-resolution continuum

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Analytical Methods, **2015***, 7*, 747 – 752 (FI = 2.6) ISSN 1759-9660

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Rapid Determination of Trace Elements in Macedonian Grape Brandies for Their Characterization and Safety Evaluation
Food Analytical Methods, **2017**, *10*, 459 – 468 (FI = 3.0) ISSN 1936-9751

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Determination of total mercury in fish tissue using a low-cost cold vapor capacitively coupled plasma microtorch optical emission microspectrometer: comparison with direct mercury determination by thermal decomposition atomic absorption spectrometry
Food Analytical Methods, **2015***, 8*, 643 – 648 (FI = 3.0) ISSN 1936-9751

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Microanalytical Method Based on Electrothermal Vaporization Capacitively Coupled Plasma Microtorch Optical Emission Spectrometry for Multielemental Determination. Comparison with Inductively Coupled Plasma Optical Emission Spectrometry.
Chemical Papers, **2017**, *71*, 91-102 (FI = 2.5) ISSN 2585-7290

Tabelul 1.

Nr lucrare anexa 1	Punctaje				
	FIC	FIC_D	FIC_{AP}	FIC_{AC}	observatii
Standardele	100	70	50	25	
1	11.3	11.3	11.3	11.3	
2	9.8	9.8	9.8	9.8	
3	9.8	9.8	-	9.8	

4	8.1	8.1	8.1	8.1	
5	8.1	8.1	8.1	-	
6	8.5	8.5	-	-	
7	6.3	6.3	6.3	6.3	
8	6.3	6.3	6.3	6.3	
9	6.1	6.1	6.1	6.1	
10	6.1	6.1	6.1	6.1	
11	6.1	6.1	6.1	6.1	
12	6.1	6.1	6.1	6.1	
13	6.1	6.1	6.1	6.1	
14	6.1	6.1	-	-	
15	5.3	5.3	5.3	5.3	
16	5.3	5.3	5.3	5.3	
17	5.1	5.1	-	-	
18	5.1	5.1	5.1	5.1	
19	5.1	5.1	5.1	5.1	
20	5.1	5.1	5.1	5.1	
21	5.1	5.1	5.1	5.1	
22	3.8	3.8	-	-	
23	3.8	3.8	-	-	
24	3.8	3.8	-	-	
25	4.215	4.215	4.215	4.215	
26	4.215	4.215	4.215	4.215	
27	4.215	4.215	-	-	
28	4.6	4.6	4.6	4.6	
29	4.6	4.6	4.6	4.6	
30	3.3	3.3	-	-	
31	3.6	3.6	3.6	3.6	
32	3.6	3.6	3.6	3.6	
33	3.8	3.8	3.8	3.8	
34	3.1	3.1	3.1	3.1	
35	3.1	3.1	3.1	3.1	
36	3.1	3.1	3.1	3.1	
37	3.1	3.1	3.1	3.1	
38	3.1	3.1	3.1	3.1	
39	3.1	3.1	3.1	3.1	
40	3.1	3.1	3.1	3.1	
41	3.1	3.1	-	-	
42	3.1	3.1	-	-	
43	3.1	3.1	-	-	
44	3.1	3.1	-	-	
45	2.6	2.6	2.6	2.6	
46	2.6	2.6	2.6	2.6	
47	2.6	2.6	2.6	2.6	
48	3.0	3.0	-	-	

49	3.0	3.0	3.0	3.0	
50	2.5	2.5	2.5	2.5	
TOTAL	**238.845**	**238.845**	**175.03**	**176.73**	
Grad de indeplinire Da/Nu	**DA**	**DA**	**DA**	**DA**	
%	**238%**	**341%**	**350%**	**707%**	

Tabelul 2

h indexul realizat	26	22	21
Sursa	Google scholar	Scopus	Web of Science
Barem h index	13		
Grad de indeplinire Da/Nu	Da		

Data 21.01.2026

Nume, Prenume

Frentiu Tiberiu