



Prof. univ. dr. habil. Cecilia ARSENE

## Fișa de autoevaluare a gradului de îndeplinire a criteriilor minimale și obligatorii pentru acordarea atestatului de abilitare

### Anexa nr. 4 – COMISIA DE CHIMIE

(Standarde minimale necesare și obligatorii pentru conferirea titlurilor didactice din învățământul superior și a gradelor profesionale de cercetare – dezvoltare, OM 6129/20.12.2016)

Categorie	N <sub>max</sub> (*)	FIC (**)	FIC <sub>D</sub> (***)	FIC <sub>AP</sub> (****)	FIC <sub>AC</sub> (*****)	h <sub>index</sub>
Profesor/Habilitare	50	100	70	50	25	13
Profesor/Habilitare (realizat)	50	222.667	222.667	75.638	55.362	20

(\*) N<sub>max</sub>: primele maxim N lucrări, organizate în ordinea descrescătoare a factorilor de impact a revistelor în care au fost publicate; (\*\*) FIC: factorul de impact cumulat minimal al revistelor în care s-au publicat lucrările în cauză; (\*\*\*) FIC<sub>D</sub>: factorul de impact cumulat minimal din publicații în domeniile de cercetare declarate; (\*\*\*\*) FIC<sub>AP</sub>: factorul de impact cumulat minimal din publicații în calitate de autor principal (prim autor și autor de corespondență); (\*\*\*\*\* FIC<sub>AC</sub>: factorul de impact cumulat minimal din publicații în calitate de autor de corespondență.

#### Lista de lucrări considerate pentru calcularea parametrilor cuprinși în Tabelul centralizator

N <sub>max</sub> (*)	Referința bibliografică	FIC (**)	FIC <sub>D</sub> (***)	FIC <sub>AP</sub> (****)	FIC <sub>AC</sub> (*****)
50		100	70	50	25
1	Vione, D., Maurino, V., Minero, C., Pelizzetti, E., Harrison, M.A.J., Olariu, R.I., <a href="#">Arsene, C.</a> , Photochemical reactions in the tropospheric aqueous phase and on particulate matter, Chemical Society Reviews, 35, 441-453, <b>2006</b> . DOI: 10.1039/b510796m	54.564	54.564		
2	Vione, D., Khanra, S., Cucu Man, S., Maddigapu, P.R., Das, R., <a href="#">Arsene, C.</a> , Olariu, R.I., Maurino, V., Minero, C., Inhibition vs. enhancement of the nitrate-induced phototransformation of organic substrates by the OH scavengers bicarbonate and carbonate, Water Research, 43, 4718 – 4728, <b>2009</b> . DOI.org/10.1016/j.watres.2009.07.032	11.236	11.236		
3	Gherasim, C.V., Bourceanu, G., Olariu, R.I., <a href="#">Arsene, C.</a> , A novel polymer inclusion membrane applied in chromium (VI) separation from aqueous solutions, Journal of Hazardous Materials, 197, 244-253, <b>2011</b> . DOI.org/10.1016/j.jhazmat.2011.09.082	10.588	10.588		
4	<a href="#">Arsene, C.</a> , Barnes, I., Becker, K.H., Schneider, W., Wallington, T., Mihalopoulos, N., Patroescu-Klotz, I., Formation of methane	9.028	9.028	9.028	

Grad îndeplinire Criterii Profesor/abilitare conform OM 6129/20.12.2016



	sulphinic acid in the gas phase OH-radical initiated oxidation of dimethyl sulphoxide, <i>Environmental Science and Technology</i> , 36, 5155-5163, <b>2002</b> . DOI.org/10.1021/es020035u				
5	Vione, D., Falletti, G., Maurino, V., Minero, C., Pelizzetti, E., Malandrino, M., Ajassa, R., Olariu, R.I., <a href="#">Arsene, C.</a> , Sources and sinks of hydroxyl radical upon irradiation of natural water samples, <i>Environmental Science and Technology</i> , 40, 3775-3781, <b>2006</b> . DOI.org/10.1021/es052206b	9.028	9.028		
6	Olariu, R.I., Barnes, I., Bejan, I., <a href="#">Arsene, C.</a> , Vione, D., Klotz, B., Becker, K.H., FTIR product study of the reactions of NO <sub>3</sub> radicals with ortho-, meta-, and para-cresol, <i>Environmental Science and Technology</i> , 47, 7729-7738, <b>2013</b> . DOI.org/10.1021/es401096w	9.028	9.028		
7	Vione, D., Maurino, V., Cucu-Man, S., Khanra, S., <a href="#">Arsene, C.</a> , Olariu, R., Minero, C., Formation of organobrominated compounds in the presence of bromide under simulated atmospheric aerosol conditions, <i>Chemistry Sustainable Chemistry</i> , 1, 197-204, <b>2008</b> . DOI.org/10.1002/cssc.200700031	8.928	8.928		
8	Gherasim, C.V.I., Bourceanu, G., Olariu, R.I., <a href="#">Arsene, C.</a> , Removal of lead(II) from aqueous solutions by a polyvinyl-chloride inclusion membrane without added plasticizer, <i>Journal of Membrane Science</i> , 377(1-2), 167-174, <b>2011</b> . DOI.org/10.1016/j.memsci.2011.04.042	8.742	8.742		
9	Galon-Negru, A.G., Olariu, R.I., <a href="#">Arsene, C.*</a> , Size-resolved measurements of PM <sub>2.5</sub> water-soluble elements in Iasi, north-eastern Romania: Seasonality, source apportionment and potential implications for human health, <i>Science of the Total Environment</i> , 695, 133839, <b>2019</b> . DOI.org/10.1016/j.scitotenv.2019.133839	7.963	7.963	7.963	7.963
10	Roman, C., <a href="#">Arsene, C.</a> , Bejan, G.I., Olariu, R.I., Investigations on the gas-phase photolysis and OH radical kinetics of nitrocatechols: implications of intramolecular interactions on their atmospheric behaviour, <i>Atmospheric Chemistry and Physics</i> , 22, 2203-2219, 2022. <a href="https://doi.org/10.5194/acp-22-2203-2022">https://doi.org/10.5194/acp-22-2203-2022</a>	6.133	6.133		
11	Negru-Galon A.G., Olariu, R.I., <a href="#">Arsene, C.*</a> , Chemical characteristics of size-resolved atmospheric aerosols in Iasi, north-eastern Romania: nitrogen-containing inorganic compounds control aerosol chemistry in the area, <i>Atmospheric Chemistry and Physics</i> , 18, 1-26, <b>2018</b> . DOI.org/10.5194/acp-18-5879-2018	6.133	6.133	6.133	6.133
12	<a href="#">Arsene, C.*</a> , Bougiatioti, A., Kanakidou, M., Bonsang, B., Mihalopoulos, N., Tropospheric OH and Cl levels deduced from non-methane hydrocarbon measurements in a marine site, <i>Atmospheric Chemistry and Physics</i> , 7, 4661-4673, <b>2007</b> . doi.org/10.5194/acp-7-4661-2007	6.133	6.133	6.133	6.133
13	Drochioiu, G., <a href="#">Arsene, C.</a> , Murariu, M., Oniscu, C., Analysis of cyanogens with resorcinol and picrate, <i>Food and Chemical Toxicology</i> , 46, 3540-3545, <b>2008</b> . DOI.org/10.1016/j.fct.2008.09.005	6.023	6.023		
14	<a href="#">Arsene, C.*</a> , Olariu, R.I., Zarmpas, P., Kanakidou, M., Mihalopoulos, N., Ion composition of coarse and fine particles in Iasi, north-eastern Romania. Implications for aerosols chemistry in the area, <i>Atmospheric Environment</i> , 45, 906-916, <b>2011</b> . DOI.org/10.1016/j.atmosenv.2010.11.013	4.798	4.798	4.798	4.798
15	<a href="#">Arsene, C.*</a> , Olariu, R.I., Mihalopoulos, N., Chemical composition of rainwater in the north-eastern Romania, Iasi	4.798	4.798	4.798	4.798



	region (2003-2006), Atmospheric Environment, 41, 9452-9467, <b>2007</b> . DOI.org/10.1016/j.atmosenv.2007.08.046				
16	<a href="#">Arsene, C.</a> , Barnes, I., Becker, K.H., Mocanu, R., FT-IR product study in the photo-oxidation of dimethyl sulphide in the presence of NOx. Temperature dependence, Atmospheric Environment, 35, 3769-3780, <b>2001</b> . DOI.org/10.1016/S1352-2310(01)00168-6	4.798	4.798	4.798	
17	Vione, D., Maurino, V., Minero, C., Duncianu, M., Olariu, R.I., <a href="#">Arsene, C.</a> , Sarakha, M., Mailhot, G., Assessing the transformation kinetics of 2- and 4-nitrophenol in the atmospheric aqueous phase. Implications for the distribution of both nitroisomers in the atmosphere, Atmospheric Environment, 43, 2321-2327, <b>2009</b> . DOI.org/10.1016/j.atmosenv.2009.01.025	4.798	4.798	4.798	4.798
18	Harrison, M.A.J., Barra, S., Borghesi, D., Vione, D., <a href="#">Arsene, C.</a> , Olariu, R.I., Nitrated phenols in the atmosphere. A review, Atmospheric Environment, 39, 231-248, <b>2005</b> . DOI.org/10.1016/j.atmosenv.2004.09.044	4.798	4.798		
19	Roman, C., Roman, T., <a href="#">Arsene, C.</a> , Bejan, I.G., Olariu, R.I., Gas-phase IR cross-sections and single crystal structures data for atmospheric relevant nitrocatechols, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 265, 120379, 2022. <a href="https://doi.org/10.1016/j.saa.2021.120379">https://doi.org/10.1016/j.saa.2021.120379</a>	4.098	4.098		
20	Soroaga, L.V., Amarandei, C., Negru, A.G., Olariu, R.I., <a href="#">Arsene, C.*</a> , Assessment of the anthropogenic impact and distribution of potentially toxic and rare earth elements in lake sediments from north-eastern Romania, Toxics, 10(5), 242, 2022. <a href="https://doi.org/10.3390/toxics10050242">https://doi.org/10.3390/toxics10050242</a>	3.791	3.791	3.791	3.791
21	<a href="#">Arsene, C.</a> , Barnes, I., Becker, K.H., FT-IR product study of the photo-oxidation of dimethyl sulphide. Temperature and O2 partial pressure dependence, Physical Chemistry Chemical Physics, 1, 5463-5470, <b>1999</b> . DOI.org/10.1039/A907211J	3.676	3.676	3.676	
22	Sandu, I., Olariu, R.I., Sandu, I.G., Stirbu, C., Pascu, C., Vasilache, V., Vione, D., <a href="#">Arsene, C.*</a> , Investigation of the dynamics and kinetics involved in saline aerosol generation under air erosion of pure and contaminated halide salts, Journal of Aerosol Science, 81, 100-109, <b>2015</b> . DOI.org/10.1016/j.jaerosci.2014.12.003	3.433	3.433	3.433	3.433
23	Sandu, M.C., Soroaga, L.V., Balaban, S.I., Chelariu, C., Chiscan, O., Iancu, G.O., <a href="#">Arsene, C.</a> , Olariu, R.I., Trace elements distribution in stream sediments of an abandoned U mining site in the Eastern Carpathians, Romania, with particular focus on REEs, Geochemistry 81, 125761, 2021. <a href="https://doi.org/10.1016/j.chemer.2021.125761">https://doi.org/10.1016/j.chemer.2021.125761</a>	3.133	3.133		
24	Amarandei, C., Negru, A.G., Soroaga, L.V., Cucu-Man, S.M., Olariu, R.I., <a href="#">Arsene, C.*</a> , Assessment of surfacewater quality in the Podu Iloaiei Dam Lake (North-Eastern Romania): Potential implications for aquaculture activities in the area, Water, 13, 2395, 2021. <a href="https://doi.org/10.3390/w13172395">https://doi.org/10.3390/w13172395</a>	3.103	3.103	3.103	3.103
25	Vione, D., Lauri, V., Minero, C., Maurino, V., Malandrino, M., Carlotti, M.E., Olariu, R.I., <a href="#">Arsene, C.</a> , Photostability and photolability of dissolved organic matter upon irradiation of natural water samples under simulated sunlight, Aquatic Science, 71, 34-45, <b>2009</b> . DOI 10.1007/s00027-008-8084-3	2.744	2.744		
26	Grira, A., Amarandei, C., Romanias, M.N., El Dib, G., Canosa,	2.686	2.686		



	A., <a href="#">Arsene, C.</a> , Bejan, I.G., Olariu, R.I., Coddeville, P., Tomas, A., Kinetic measurements of Cl atom reactions with C5–C8 unsaturated alcohols, <i>Atmosphere</i> , 11, 256; doi:10.3390/atmos11030256, <b>2020</b> .				
27	Cernat, R.I., Mihaescu, T., Vornicu, M. Vione, D., Olariu, R.I., <a href="#">Arsene, C.*</a> , Serum trace metal and ceruloplasmin variability in individuals treated for pulmonary tuberculosis, <i>International Journal of Tuberculosis and Lung Diseases</i> , 15, 1239-1245, <b>2011</b> . DOI.org/10.5588/ijtld.10.0445	2.373	2.373	2.373	2.373
28	Humelnicu, D., Soroaga, L.V., <a href="#">Arsene C.</a> , Humelnicu, I., Olariu, R.I., Adsorptive performance of soy bran and mustard husk towards arsenic (V) ions from synthetic aqueous solutions, <i>Acta Chimica Slovenica</i> , 66, 326-336, <b>2019</b> . DOI: 10.17344/acsi.2018.4821	1.735	1.735		
29	Bibire, N., Olariu, R.I., Agoroaei, L., Vieriu, M., Panainte, A.D., Cernat, R.I., <a href="#">Arsene C.*</a> , Reversed-phase high performance liquid chromatographic analysis of three first line anti-tuberculosis drugs, <i>Revista de Chimie</i> , 69, 3590-3592, <b>2018</b> . doi.org/10.37358/RC.18.12.6799	1.605	1.605	1.605	1.605
30	Onofrei, T., Hurduc, N., <a href="#">Arsene, C.</a> , Ionescu, D., Sorption of Cu(II), Co(II) and Ni(II) on 1-(4'-azobenzylcellulose)-2-naphtol. Thermogravimetric characterisation, <i>Cellulose Chemistry and Technology</i> , 34, 261-268, <b>2000</b> .	1.467	1.467		
31	Onofrei, T., <a href="#">Arsene, C.</a> , Hurduc, N., A non-isothermal kinetic study upon the Pb(II) sorption on chemically-modified celluloses, <i>Cellulose Chemistry and Technology</i> , 36, 507-514, <b>2002</b> .	1.467	1.467		
32	Onofrei, T., Hurduc, N., <a href="#">Arsene, C.</a> , A non-isothermal kinetic study on the sorption of elements from group IIA on 4-(benzylcellulose)-5-azo-8-hydroxiquinoline, <i>Cellulose Chemistry and Technology</i> , 35, 235-241, <b>2001</b> .	1.467	1.467		
33	Onofrei, T., <a href="#">Arsene, C.</a> , Mita, C., Agache, C., Sorption of elements from group IIA on 4-(benzylcellulose)-5-azo-8-hydroxiquinoline, <i>Cellulose Chemistry and Technology</i> , 35, 15-23, <b>2001</b> .	1.467	1.467		
34	Braure, T., Riffault, V., Tomas, A., Olariu, R.I., <a href="#">Arsene, C.</a> , Bedjanian, Y., Coddeville, P., Ozonolysis of a series of methylated alkenes. Reaction rate coefficients and gas-phase products, <i>International Journal of Chemical Kinetics</i> , 47, 596-605, <b>2015</b> . DOI.org/10.1002/kin.20934	1.462	1.462		
35	<a href="#">Arsene, C.</a> , Barnes, I., Becker, K.H., Benter, Th., Gas phase reaction of Cl with dimethyl sulphide. Temperature and oxygen partial pressure dependence of the rate constant, <i>International Journal of Chemical Kinetics</i> , 36, 66-73, <b>2005</b> . DOI.org/10.1002/kin.20051	1.462	1.462	1.462	
36	Marin, S.L., Mardare (Balusescu), G., Paduraru, M., Roman, C., Sandu, I.G., Olariu, R.I., <a href="#">Arsene, C.</a> , Vasilache, V., Authentication and evaluation of the technique of minting Romanian coins of the 20th century. I, <i>Revista de Chimie</i> , 68(9), 2155-2159, <b>2017</b> . doi.org/10.37358/RC.17.9.5846	1.412	1.412		
37	Coman-Babusanu, A.C., Olariu, R.I., Butnaru, E., <a href="#">Arsene C.*</a> , Dissipation kinetics of tebuconazole on <i>Malus domestica</i> (Golden Delicious and Jonathan) in an apple orchard from north-eastern Romania, <i>Journal of Liquid Chromatography and Related Technologies</i> , 42, 582-592, <b>2019</b> . DOI.org/10.1080/10826076.2019.1642918	1.312	1.312	1.312	1.312
38	Olariu, R.I., Vione, D., Grinberg, N., <a href="#">Arsene, C.*</a> , Sample preparation for trace analysis by chromatographic methods,	1.312	1.312	1.312	1.312



	Journal of Liquid Chromatography & Related Technologies, 33, 1174-1207, 2010. DOI.org/10.1080/10826076.2010.484371				
39	<a href="#">Arsene, C.</a> , Vione, D., Grinberg, N., Olariu, R.I., GCxGC-MS hyphenated techniques for the analysis, of volatile organic compounds in air, Journal of Liquid Chromatography & Related Technologies, 34, 1077-1111, 2011. DOI.org/10.1080/10826076.2011.587749	1.312	1.312	1.312	
40	Olariu, R.I., Vione, D., Grinberg, N., <a href="#">Arsene C.*</a> , Applications of liquid chromatographic techniques in the chemical characterization of atmospheric aerosols, Journal of Liquid Chromatography and Related Technologies, 38, 322-348, 2015. DOI.org/10.1080/10826076.2014.941256	1.312	1.312	1.312	1.312
41	<a href="#">Arsene, C.*</a> , Bougiatioti, A., Mihalopoulos, N., Sources and variability of non-methane hydrocarbons in the Eastern Mediterranean, Global NEST Journal, 11, 333-340, 2009.	1.042	1.042	1.042	1.042
42	Negru, A.G., <a href="#">Arsene, C.</a> , Zbancioc, A.M., Mangalagiu, I.I., Olariu, R.I., Physico-chemical behaviour of newly synthesised macrocyclic compounds. A reality between expectations and experimental evidences, Revista de Chimie, 66, 1339-1342, 2015.	0.956	0.956		
43	Cernat, R.I., Mocanu, R.D., Popa, E., Sandu, I., Olariu, R.I., <a href="#">Arsene, C.*</a> , Investigation of chemical parameters in biological systems, Revista de Chimie, 61, 1130-1135, 2010.	0.693	0.693	0.693	0.693
44	Pindaru, D.M., Tanase, C., Olariu, R.I., <a href="#">Arsene, C.*</a> , Chemical composition and ions concentrations in <i>Xanthoria Parietina</i> and <i>Phaeosphyscia orbicularis</i> lichenised fungi species from Iasi, north-eastern Romania, Revista de Chimie, Bucharest, 64, 808-814, 2013.	0.677	0.677	0.677	0.677
45	Pindaru, D.M., Tanase, C., Olariu, R.I., <a href="#">Arsene, C.*</a> , Extra and intercellular concentrations of water soluble cations from <i>Xanthoria Parietina</i> and <i>Phaeosphyscia orbicularis</i> lichenised fungi species, Revista de Chimie, Bucharest, 64, 715-719, 2013.	0.677	0.677	0.677	0.677
46	Stefanescu, I.A., Gavrilă, L., Mocanu, R.D., Olariu, R.I., <a href="#">Arsene, C.*</a> , Bioremediation perspective of <i>Bacillus Megaterium</i> towards heavy metals in environments enriched with phosphogypsum, Revista de Chimie, 62, 245-249, 2011.	0.599	0.599	0.599	0.599
47	Olariu, R.I., Humelnicu, D., Sandu, I., Humelnicu, I., <a href="#">Arsene, C.*</a> , Physico-chemical characterization of a new silica-polyoxometalate thermally modified unit, Revista de Chimie, 60, 1216-1219, 2009.	0.552	0.552	0.552	0.552
48	Vione, D., Rinaldi, E., Minero, C., Maurino, V., Olariu, R.I., <a href="#">Arsene, C.*</a> , Studies regarding groundwater quality at rural sites. 2. Photochemical generation of OH and NO <sub>2</sub> radicals upon UV-A irradiation of nitrate-rich groundwater, Revista de Chimie, 60, 551-554, 2009.	0.552	0.552	0.552	0.552
49	Vione, D., Casanova, I., Minero, C., Duncianu, M., Olariu, R. I., <a href="#">Arsene, C.*</a> , Assessing the potentiality of Romanian surface waters to produce hydroxyl and nitrite radicals, Revista de Chimie, 60, 123-126, 2009.	0.552	0.552	0.552	0.552
50	Humelnicu, D., Olariu, R.I., Sandu, I., Apostolescu, N., Sandu, A.V., <a href="#">Arsene, C.*</a> , New heteropolyoxotungstates and heteropolyoxomolybdates containing radioactive ions (uranyl and thorium) in their structure, Revista de Chimie, 59, 920-925, 2008.	0.389	0.389	0.389	0.389

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