

## FIȘĂ PRIVIND RAPORTAREA LA STANTARDELE MINIMALE PE DOMENII

FIȘĂ DE VERIFICARE a îndeplinirii standardelor naționale în vigoare, domeniul **Geologie**,  
Comisia Științele Pământului

### CRITERIUL 1: ARTICOLE ȘTIINȚIFICE

Nr. crt.	Articole în reviste ISI ca autor principal (minim 5 WoS + 3 BDI, AIS cumulată ≥ 3.5)	FI	AIS (la data publicării)
1	Ágnes Keresztesi, Ion-Andrei Nita, Marius-Victor Birsan, Zsolt Bodor, <b>Róbert Szép*</b> , The risk of cross-border pollution and the influence of regional climate on the rainwater chemistry in the Southern Carpathians, Romania, Environmental Science and Pollution Research, <a href="https://doi.org/10.1007/s11356-019-07478-9">https://doi.org/10.1007/s11356-019-07478-9</a> , 2020. (FI = 2.914)	2.914	0.539
2	Ágnes Keresztesi, Ion-Andrei Nita, Marius-Victor Birsan, Zsolt Bodor, Tímea Pernyeszi, Miruna Mihaela Micheu, <b>Róbert Szép*</b> , Assessing the variations in the chemical composition of rainwater and air masses using the zonal and meridional index, Atmospheric Research, Volume 237, June 2020, 104846, <a href="https://doi.org/10.1016/j.atmosres.2020.104846">https://doi.org/10.1016/j.atmosres.2020.104846</a> . (FI = 4.114)	4.114	0.934
3	<b>Robert Szép</b> , Zsolt Bodor, Ildiko Miklossy, Ion-Andrei Nita, Oana A. Oprea, Ágnes Keresztesi, Influence of peat fires on the rainwater chemistry in intra-mountain basins with specific atmospheric circulations (Eastern Carpathians, Romania), Science of the Total Environment, Volume 647, Issue 1, Pages: 275-289, 2019. (FI = 5.589)	5.589	1.032
4	<b>Robert Szép</b> , Elena Mateescu, Ion-Andrei Nita, Marius-Victor Birsan, Zsolt Bodor, Ágnes Keresztesi, Effects of the Eastern Carpathians on atmospheric circulations and precipitation chemistry from 2006 to 2016 at four monitoring stations (Eastern Carpathians, Romania), Atmospheric Research, Volume 214, Issue 1, Pages: 311 – 328, 2018. (FI = 3.817)	4.114	0.990
5	<b>R. Szép</b> , E. Mateescu, A.C. Nechifor, Á. Keresztesi, Chemical characteristics and source analysis on ionic composition of rainwater collected in the Carpathians "Cold Pole", Ciuc basin, Eastern Carpathians – Romania. Environmental Science and Pollution Research, Volume:24, Issue:35, Page: 27288-27302, 2017. (FI = 2.800)	2.800	0.557
6	Ágnes Keresztesi, Marius-Victor Birsan, Ion-Andrei Nita, Zsolt Bodor, <b>Róbert Szép*</b> , Assessing the neutralisation, wet deposition and source contributions of the precipitation chemistry over Europe during 2000–2017, Environmental Sciences Europe, (2019) 31:50, <a href="https://doi.org/10.1186/s12302-019-0234-9">https://doi.org/10.1186/s12302-019-0234-9</a> . (FI = 5.878)	5.878	–
7	Marius-Victor Birsan, Dana-Magdalena Micu, Ion-Andrei Nita, Elena Mateescu, <b>Róbert Szép</b> , Ágnes Keresztesi, Spatio-Temporal Changes in Annual Temperature Extremes over Romania (1961-2013), Romanian Journal of Physics 64, 816, pages 1-11, (2019). (FI = 1.460)	1.460	0.208
8	Ágnes Keresztesi, Sandor Petres, Ghita Gina, Dumitru Florina-Diana, Mihaela Andreea Moncea, Alexandru Ozunu, <b>Robert Szép*</b> , Ammonium Neutralization Effect on Rainwater Chemistry in the Basins of the Eastern Carpathians – Romania, Revista de Chimie, Volume: 69, Issue: 1, Page: 57-63, 2018. (FI = 1.412)	1.605	0.052
9	<b>Szép, R.</b> , Keresztes, R., Korodi A., Tonk, Sz., Craciun, M.E., - Study of air pollution and atmospheric stability in Ciuc basin – Romania - Revista de Chimie - Revista de Chimie, Volume: 68, Issue: 8, Page: 1763-1767, 2017. (FI = 1.412)	1.412	0.047
10	<b>Szép, R.</b> , Keresztes, R., Tonk, Sz., Korodi A., Craciun, M.E., - The Examination of the Effects of Relative Humidity on the Changes of Tropospheric Ozone Concentrations in the Ciuc basin, Romania - Revista de Chimie - Volume: 68, Issue: 4, Page: 642-645, 2017. (FI = 1.412)	1.412	0.047
11	<b>Szép, R.</b> , Keresztes, R., Korodi A., Tonk, Sz., Niculae, A.G., Barloiu, A.M., - Dew point – indirect particulate matter pollution indicator in the Ciuc basin – Harghita, Romania - Revista de Chimie, Volume: 67, Issue: 10, Page: 1914-1921, 2016. (FI = 1.412)	1.412	0.057
12	<b>Szép, R.</b> , Keresztes, R., Deák, Gy., Tobă, F., Ghimpușian, M. - The dry deposition of PM10 and PM2.5 to the vegetation and its health effect in the Ciuc basin – Revista de Chimie, Volume: 67, Issue: 4, Page: 639-644, 2016. (FI = 1.412)	1.412	0.057
13	<b>Szép, R.</b> , Keresztes, R., Constantin, L., - Multi-model assessment of tropospheric ozone pollution indices of risk to human health and crops, and ozone deposition in Ciuc Depression – Romania, Revista de Chimie, Volume: 67, Issue: 3, Page: 408-413, 2016. (FI = 1.412)	1.412	0.057

14	Szép, R., MÁTYÁS L., Keresztes, R., Ghimpusan, M., - Tropospheric Ozone Concentrations - Seasonal and Daily Analysis and its Association with NO and NO <sub>2</sub> as a Function of NO <sub>x</sub> in Ciuc Depression – Romania – Revista de Chimie, vol. 67., 2., Page: 205-213, 2016. (FI = 1.412)	1.412	0.057
15	Szende Tonk, Cornelia Majdik, <b>Robert Szép</b> , Maria Suci, Ester Rápó, Boldizsár Nagy, Biosorption of Cd(II) ions from aqueous solution by eggshell waste kinetic and equilibrium isotherm studies, Revista de Chimie, Volume: 68, Issue: 9, Page: 1951-1958, 2017. (FI = 1.412)	1.412	0.047
16	Ondrej HEGEDŰS, Zuzana ŠMOTLÁKOVÁ, Alžbeta HEGEDŰSOVÁ, Jarmila DUBAJOVÁ, Alena ANDREJIOVÁ, Silvia JAKABOVÁ, SZENDE TONK, <b>SZÉP RÓBERT</b> , Tímea PERNYESZI, Determination of Isocyanates in Workplace Atmosphere by HPLC, Revista de Chimie, Volume: 69, Issue: 2, Page: 625-630, 2018. (FI = 1.412)	1.605	0.052
17	Anamaria Török, Boldizsár Nagy, Szende Tonk, Erzsébet Buta, <b>Robert Szép</b> , Cornelia Majdik, Alexandra Gabriela Niculae, Crystal violet dye removal from aqueous solutions using Elodea canadensis as biofilter, Revista de Chimie, Volume: 68, Issue: 10, Page: 2270-2275, 2017. (FI = 1.412)	1.412	0.047
18	Eszter Rápó, <b>Róbert Szép</b> , Ágnes Keresztesi, Maria Suci, Szende Tonk, Adsorptive Removal of Cationic and Anionic Dyes from Aqueous Solutions by Using Eggshell Household Waste as Biosorbent, Acta Chim. Slov, vol. 65, pages 709-717, 2018. (FI = 1.104)	1.104	0.151
19	Holban Elena, Matei Monica, Gina Ghita, Raischi Marius, Fronescu Simona, Daescu Andreea, Petrache Gheorghe Ionut, Ilie Mihaela, <b>Robert Szép</b> , Moncea Andreea, Marinescu Florica, Tociu Carmen, ASSESSMENT OF ATMOSPHERIC POLLUTION IN A CEMENT FACTORY AREA SITUATED IN THE EASTERN PART OF ROMANIA, Journal of Environmental Protection and Ecology, Volume: 18, Issue: 3, Page: 819-830, 2017. (FI = 0.679)	0.679	0.033
20	C. Tociu, <b>Robert Szép</b> , A. M. Anghel, F. Marinescu, M. Ilie, E. Holban, M. Matei, Gina Ghita, I. Popescu, A. Moncea, L. Laslo, A.I. Daescu, POSSIBILITIES FOR EFFICIENT USE OF VALUABLE MATERIALS FROM ALUMINIUM SLAG TO REMOVE SPECIFIC POLLUTANTS IN WASTEWATER, Journal of Environmental Protection and Ecology, Volume: 18, Issue: 3, Page: 842-852, 2017. (FI=0.679)	0.679	0.033
21	A.M. Anghel, F. Marinescu, M. Ilie, G. Ghiță, P. Ionescu, I. Mărcuș, C. Tociu, A. Moncea, M. Mîțiu, I. Popescu, <b>Robert Szép</b> , L. Laslo, E. Holban, ADVANCED PROCESSING OF ENVIRONMENTAL DATA FORESTABLISHING THE ECOLOGICAL STATUS OF THE LOWERDANUBE WATER IN TERMS OF NUTRIENTS, Journal of Environmental Protection and Ecology, Volume: 18, Issue:3, Page: 853-861, 2017. (FI=0.679)	0.679	0.033
22	Maria Vlad, Mihaela-Andreea Mîțiu, Ana-Maria Anghel, Lucian Laslo, Mihaela Ilie, <b>Robert Szép</b> , Gina Ghita, Monica Matei, Elena Holban, F. D. Dumitru, Recovery of galvanic sludge by psychochemical mechanism, Journal of Environmental Protection and Ecology, Volume: 18, Issue: 3, Page: 1117-1126, 2017. (FI=0.679)	0.679	0.033
23	Nicolae, A., Deak, Gy., Tudor, G., Cirstinoiu, C., Zamfir, A.S., Uritescu, B., Ghita, G., Georgescu, L.P., Raischi, M., Dumitru, D., Moncea, A.M., Laslo, L., <b>Szép, R.</b> , Comparative analysis on water velocity distribution in the context of riverbed morphology changes and discharge variation, Journal of Environmental Protection and Ecology, Volume: 18, Issue: 4, Page: 1649-1657, 2017. (FI=0.679)	0.679	0.033
24	Mihaela Ilie, Florica Marinescu, <b>Robert Szep</b> , Gina Ghita, György Deak, Ana-Maria Anghel, Alexandru Petrescu & Bogdan Uritescu; Ecological risk assessment of heavy metals in surface sediments from the Danube river – Carpathian Journal of Earth And Environmental Sciences, July 2017, Vol. 12, No. 2, p. 437 - 445. (FI = 0.671)	0.671	0.117
25	<b>Robert SZÉP*</b> & László MÁTYÁS - The role of regional atmospheric stability in high-PM10 concentration episodes in Miercurea Ciuc (Harghita) – Carpathian Journal of Earth and Environmental Sciences, Volume: 9, Issue: 2, Page: 241-250, 2014. (FI = 0.671)	0.671	0.102
26	MARIUS-VICTOR BIRSAN, ION-ANDREI NITA, ALEXANDRA CRACIUN, LUCIAN SFÎCĂ, CRINA RADU, <b>RÓBERT SZÉP</b> , ÁGNES KERESZTESI, MIRUNA MIHAELA MICHEU, OBSERVED CHANGES IN MEAN AND MAXIMUM MONTHLY WIND SPEED OVER ROMANIA SINCE AD 1961, Romanian Journal of Physics, In press, 2020. (FI = 1.460)	1.460	0.208
27	ION-ANDREI NITA, LUCIAN SFÎCĂ, LIVIU APOSTOL, CRINA RADU, MARIUS VICTOR BIRSAN, <b>RÓBERT SZÉP</b> , ÁGNES KERESZTESI, Changes in cyclones intensity over Romania according to 12 tracking methods, Romanian Journal of Physics, In press, 2020. (FI = 1.460)	1.460	0.208
28	Eszter Rápó, Katalin Posta, Maria Suci, <b>Robert Szép</b> , Szende Tonk, Adsorptive Removal of Remazol Brilliant Violet-5R Dye from Aqueous Solutions using Calcined Eggshell as Biosorbent, Acta Chim. Slov., 2019, 66, 648–658. (FI = 1.104)	1.104	0.151

	<b>FI cumulat/ AIS (primele 5 articole)</b>	<b>51.240</b>	<b>4.052</b>
	*autor corespondent		
	§conform WoS		

<b>Nr. crt.</b>	<b>ARTICOLE INDEXATE IN BAZE INTERNAȚIONALE DE DATE (BDI) și ISI Proceedings</b>	<b>TIP publicație</b>
1	Simona Natalia Raischi, <b>Robert Szép</b> , Cristina Mihaela Balaceanu, Marius Raischi, Diana Dumitru, Andreea Moncea, Lucian Laslo, György Deák, Ágnes Keresztesi, Air pollution analysis in Moldova Noua waste dump, Ecoterra, Volume: 14, Issue: 2, Pages: 70-77, Published: June 2017	BDI
2	Florina-Diana Dumitru, Ana-Maria Panait, Marius-Viorel Olteanu, Elena Holban, György Deák, <b>Robert Szép</b> , Ágnes Keresztesi, Assessing the preservation state of a Romanian historic concrete icon – the Constanta Casino, Ecoterra, Volume: 14, Issue: 3, pp. 1-7, 2017.	BDI
3	Borboly Csaba, <b>Szép Róbert</b> , Contamination /respectively pollution with pesticides of the soils in the plant protection center of Miercurea Ciuc, Annals of the University of Petrosani, Mining Engineering, Volume: 13, Pages: 314-322, 2012	BDI
4	<b>Szép R.</b> , Arad, V., Arad, S., Salcia energetică o oportunitate privind utilizarea terenurilor degradate din zonele miniere, Revista Minelor, Issue: 9-10, Pages: 53-56, 2008.	BDI
5	<b>Szép Robert</b> , Borboly Csaba, Victor Arad, Susana Arad, Rehabilitation method of the areas wich are naturally contaminated with heavy elements in metaliferous district of Bălan (România, Harghita, Eastern Carpathians) – immobilization with apatite, Ecology and Environmental Protection, Enviromental Legislation, Multilateral Relation and Funding Opportunities, Volume V – issn 1314-2704, page. 675 – 684, 2012, doi:10.5593/sgem, <a href="http://www.sgem.org/index.php/call-for-papers/impact-factor">http://www.sgem.org/index.php/call-for-papers/impact-factor</a>	ISI Proceedings
6	<b>Szép Robert</b> , Borboly Csaba, Victor Arad, Susana Arad, Utilization of the Chauvenet statistical test in environmental researches respectively biogeochemical prospection for establishment of found value, threshold value and anomalous values, Ecology and Environmental Protection, Enviromental Legislation, Multilateral Relation and Funding Opportunities, Volume V, – issn 1314-2704, page. 995 – 1000, 2012, doi:10.5593/sgem.	ISI Proceedings
7	Radu Violeta-Monica, Ionescu Petra, <b>Szép Robert</b> , Tănase Georgiana Simona, Raischi Simona, Evaluation of priority hazardous substances present in the sediments of the lower Danube section using multivariate statistical analysis, Water Resources. Forest, Marine and Ocean Ecosystems, Volume 1, Page: 277-283, 2015. ISBN 978-619-7105-36-0, ISSN 1314-2704, DOI 10.5593/sgem	ISI Proceedings
8	Ionescu Petra, Radu Violeta-Monica, Szép Robert, Tănase Georgiana Simona, Boboc Mădălina, Characterization of metal flow dynamics along the lower section of Danube River using correlation algorithms. Water Resources. Forest, Marine and Ocean Ecosystems, Volume 1, Issue: 1, Page: 129-135, 2015. ISBN 978-619-7105-36-0, ISSN 1314-2704, DOI 10.5593/sgem	ISI Proceedings
9	Tiberius Danalache, Robert Szep, Alin Badilita, Madalina Georgiana Boboc, Stefan Diaconescu, Ecological assessment of lower Danube river baed on the ichthyifauna structure and composition. Water Resources. Forest, Marine and Ocean Ecosystems, Volume 1, Issue: 1, Page: 237-244 , 2015. ISBN 978-619-7105-36-0, ISSN 1314-2704, DOI 10.5593/sgem	ISI Proceedings
10	S., Petres, A., Korodi, R., Keresztes, R., <b>Szép</b> , Tendencies and particularities in thermic inversion episodes in the Ciuc Basin – Eastern Carpathians, Romania, Applied and Environmental Geophysics, Volume: 17, Issue: 14, Page: 445-452, 2017	ISI Proceedings
11	Attila Korodi, Sandor Petres, Agnes Keresztesi, <b>Robert Szep</b> , Sustainable Development. Theory or practice?, Environmental Legislation, Multilateral Relations and Funding Opportunities, Volume: 17, Issue: 54, Page: 387-393, 2017	ISI Proceedings
	<b>Total articole indexate BDI și ISI proceedings</b>	<b>11</b>

## CRITERIUL 2: VIZIBILITATEA ARTICOLELOR ȘTIINȚIFICE

Indicele HIRSCH WoS (minim 4, fără autocitări)

<b>Nr. crt.</b>	<b>ARTICOL CITAT/ARTICOL CARE CITEAZĂ</b>
1	Robert Szép, Zsolt Bodor, Ildiko Miklossy, Ion-Andrei Nita, Oana A. Oprea, Ágnes Keresztesi, Influence of peat fires on the rainwater chemistry in intra-mountain basins with specific atmospheric circulations

	<p>(Eastern Carpathians, Romania), <i>Science of the Total Environment</i>, Volume 647, Issue 1, Pages: 275-289, 2019.</p> <ol style="list-style-type: none"> <li>1. Model driven analysis of the biosynthesis of 1,4-butanediol from renewable feedstocks in <i>Escherichia coli</i>. Authors: Zs. Bodor, Sz. Lanyi, B. Albert, K. Bodor, A.C. Nechifor, I. Miklossy. Source: <i>Revista de Chimie</i>, Vol. 79, No. 11, 2019</li> <li>2. Iono-molecular Separation with Composite Membranes. VII. Nitrophenols pertraction on capillary polypropylene S-EPDM composite membranes. Authors: ION MARIUS NAFLIU, HUSSAM NADUM ABDALRAHEEM AL ANI, ALEXANDRA RALUCA GROSU (MIRON), SZIDONIA KATALIN TANCZOS, IOANA MAIOR, AURELIA CRISTINA NECHIFOR. Source: <i>Materiale Plastice</i>, Vol. 55, Issue 4, 2018</li> <li>3. In silico analysis of 1,4 – butanediol heterologous pathway impact on <i>Escherichia coli</i> metabolism. Authors: Zsolt Bodor, Lehel Tompos, Aurelia Cristina Nechifor, Katalin Bodor. Source: <i>Revista de Chimie</i>, Vol. 70, No. 10, 2019</li> <li>4. The influence of evapotranspiration and wet deposition on the variations of PM10 concentration in the Ciuc basin. Authors: Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Tímea Pernyeszi, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development, De Gruyter</i>, Vol. 13, No. 1, 2019</li> <li>5. Validation and quality assurance of ascorbic acid determination in agricultural products. Authors: ONDREJ HEGEDŰS, KATARÍNA SZARKA, ALŽBETA HEGEDŰSOVÁ, ZSUZSANNA GÓDÁNY, MIROSLAV ŠLOSÁR, AURELIA CRISTINA NECHIFOR and SZENDE TONK. Source: <i>Revista de chimie</i>, Volume 70, No. 7, 2019</li> <li>6. The analysis of the chemical composition of precipitation during the driest year from the last decade. Authors: Ágnes Keresztesi, Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development, De Gruyter</i>, Vol. 13, no. 1, 2019</li> <li>7. ION MARIUS NAFLIU, ALEXANDRA RALUCA GROSU (MIRON), HUSSAM NADUM ABDALRAHEEM AL-ANI, PAUL CONSTANTIN ALBU, GAVRIL GHEORGHIEVICI, MIHAELA EMANUELA CRACIUN, Neutralization with Simultaneously Separation of Aluminum Ions from Condensate Water through Cellulose Derivatives-Capillary Polypropylene Composite Membranes, <i>MATERIALE PLASTICE</i>, 56, No. 2, pages: 301-305, 2019.</li> <li>8. Jie Zeng, Fu-Jun Yue, Zhong-Jun Wang, Qixin Wu, Cai-Qing Qin, Si-Liang Li, Quantifying depression trapping effect on rainwater chemical composition during the rainy season in karst agricultural area, southwestern China, <i>Atmospheric Environment</i>, 218, 116998, 2019</li> <li>9. Jie Zeng, Guilin Han, Qixin Wu, Yang Tang, Effects of agricultural alkaline substances on reducing the rainwater acidification: Insight from chemical compositions and calcium isotopes in a karst forests area, <i>Agriculture, Ecosystems and Environment</i> 290 (2020) 106782</li> </ol>
2	<p>Robert Szép, Elena Mateescu, Ion-Andrei Nita, Marius-Victor Birsan, Zsolt Bodor, Ágnes Keresztesi, Effects of the Eastern Carpathians on atmospheric circulations and precipitation chemistry from 2006 to 2016 at four monitoring stations (Eastern Carpathians, Romania), <i>Atmospheric Research</i>, Volume 214, Issue 1, Pages: 311 – 328, 2018.</p> <ol style="list-style-type: none"> <li>1. Model driven analysis of the biosynthesis of 1,4-butanediol from renewable feedstocks in <i>Escherichia coli</i>. Authors: Zs. Bodor, Sz. Lanyi, B. Albert, K. Bodor, A.C. Nechifor, I. Miklossy. Source: <i>Revista de Chimie</i>, Vol. 79, No. 11, 2019</li> <li>2. Iono-molecular Separation with Composite Membranes. VII. Nitrophenols pertraction on capillary polypropylene S-EPDM composite membranes. Authors: ION MARIUS NAFLIU, HUSSAM NADUM ABDALRAHEEM AL ANI, ALEXANDRA RALUCA GROSU (MIRON), SZIDONIA KATALIN TANCZOS, IOANA MAIOR, AURELIA CRISTINA NECHIFOR. Source: <i>Materiale Plastice</i>, Vol. 55, Issue 4, 2018</li> <li>3. In silico analysis of 1,4 – butanediol heterologous pathway impact on <i>Escherichia coli</i> metabolism. Authors: Zsolt Bodor, Lehel Tompos, Aurelia Cristina Nechifor, Katalin Bodor. Source: <i>Revista de Chimie</i>, Vol. 70, No. 10, 2019</li> <li>4. The influence of evapotranspiration and wet deposition on the variations of PM10 concentration in the Ciuc basin. Authors: Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Tímea Pernyeszi, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development, De Gruyter</i>, Vol. 13, No. 1, 2019</li> </ol>

	<ol style="list-style-type: none"> <li>5. Variation of chemical characteristics of precipitation with respect to altitude gradient on the northern slope of Mt. Taibai, China, Authors: Y. Zhao, Q. Feng, A.g. Lu, R. Deo, Source: Journal of Atmospheric and Solar-Terrestrial Physics, In press, accepted manuscript. DOI: <a href="https://doi.org/10.1016/j.jastp.2019.04.007">https://doi.org/10.1016/j.jastp.2019.04.007</a></li> <li>6. Validation and quality assurance of ascorbic acid determination in agricultural products. Authors: ONDREJ HEGEDŰS, KATARÍNA SZARKA, ALŽBETA HEGEDŰSOVÁ, ZSUZSANNA GÓDÁNY, MIROSLAV ŠLOSÁR, AURELIA CRISTINA NECHIFOR and SZENDE TONK. Source: Revista de chimie, Volume 70, No. 7, 2019</li> <li>7. The analysis of the chemical composition of precipitation during the driest year from the last decade. Authors: Ágnes Keresztesi, Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Ion-Andrei Nita. Source: Present Environment and Sustainable Development, De Gruyter, Vol. 13, no. 1, 2019</li> <li>8. ION MARIUS NAFLIU, ALEXANDRA RALUCA GROSU (MIRON), HUSSAM NADUM ABDALRAHEEM AL-ANI, PAUL CONSTANTIN ALBU, GAVRIL GHEORGHEVICI, MIHAELA EMANUELA CRACIUN, Neutralization with Simultaneously Separation of Aluminum Ions from Condensate Water through Cellulose Derivatives-Capillary Polypropylene Composite Membranes, MATERIALE PLASTICE, 56, No. 2, pages: 301-305, 2019.</li> <li>9. Jie Zeng, Fu-Jun Yue, Zhong-Jun Wang, Qixin Wu, Cai-Qing Qin, Si-Liang Li, Quantifying depression trapping effect on rainwater chemical composition during the rainy season in karst agricultural area, southwestern China, Atmospheric Environment, 218, 116998, 2019</li> <li>10. Ismail Anil, Omar Alagha, Nawaf I. Blaisi, Ihab Abdelilah Mohamed, Mohammad Hisham Barghouthi, Mohammad Saood Manzar, Source Identification of Episodic Rain Pollutants by a New Approach: Combining Satellite Observations and Backward Air Mass Trajectories, Aerosol and Air Quality Research, 19:2827-2843, 2019</li> <li>11. Jie Zeng, Guilin Han, Qixin Wu, Yang Tang, Effects of agricultural alkaline substances on reducing the rainwater acidification: Insight from chemical compositions and calcium isotopes in a karst forests area, Agriculture, Ecosystems and Environment 290 (2020) 106782</li> </ol>
3	<p>R. Szép, E. Mateescu, A.C. Nechifor, Á. Keresztesi, Chemical characteristics and source analysis on ionic composition of rainwater collected in the Carpathians "Cold Pole", Ciuc basin, Eastern Carpathians – Romania. Environmental Science and Pollution Research, Volume:24, Issue:35, Page: 27288-27302, 2017.</p> <ol style="list-style-type: none"> <li>1. Evolution of tropospheric ozone and relationship with temperature and NO<sub>x</sub> for the 2007-2016 decade in the Ciuc depression, Sándor Petres, Szabolcs Lányi, Marisanda Pîrîianu, Keresztesi Agnes, Cristina Aurelia Nechifor, Revista de Chimie, vol. 69, nr. 3, 2018</li> <li>2. Characteristics and sources of mercury in precipitation collected at the urban, suburban and rural sites in a city of Southeast China. Authors: Lisi Zhao, Lingling Xu, Xin Wu, Guoqing Zhao, Ling Jiao, Jinsheng Chen, Youwei Hong, Junjun Deng, Yanting Chen, Kai Yang, Gongren Hu, Ruilian Yu. Source: Atmospheric Research, Issue: 211, Pages: 21-29, 2018. DOI: 10.1016/j.atmosres.2018.04.019</li> <li>3. Model driven analysis of the biosynthesis of 1,4-butanediol from renewable feedstocks in Escherichia coli. Authors: Zs. Bodor, Sz. Lányi, B. Albert, K. Bodor, A.C. Nechifor, I. Miklóssy. Source: Revista de Chimie, Vol. 79, No. 11, 2019</li> <li>4. Iono-molecular Separation with Composite Membranes. VII. Nitrophenols pertraction on capillary polypropylene S-EPDM composite membranes. Authors: ION MARIUS NAFLIU, HUSSAM NADUM ABDALRAHEEM AL ANI, ALEXANDRA RALUCA GROSU (MIRON), SZIDONIA KATALIN TANCZOS, IOANA MAIOR, AURELIA CRISTINA NECHIFOR. Source: Materiale Plastice, Vol. 55, Issue 4, 2018</li> <li>5. Source apportionment of heavy metals in urban road dust in a continental city of eastern China: Using Pb and Sr isotopes combined with multivariate statistical analysis. Authors: Lisi Zhao, Gongren Hu, Yu Yan, Ruilian Yu, Jianyong Cui, Xiaoming Wang, Yan Yan. Source: Atmospheric Environment, Issue: 201, Pages: 201-211, 2019. DOI: 10.1016/j.atmosenv.2018.12.050</li> <li>6. In silico analysis of 1,4 – butanediol heterologous pathway impact on Escherichia coli metabolism. Authors: Zsolt Bodor, Lehel Tompos, Aurelia Cristina Nechifor, Katalin Bodor. Source: Revista de Chimie, Vol. 70, No. 10, 2019</li> <li>7. The influence of evapotranspiration and wet deposition on the variations of PM<sub>10</sub> concentration in the Ciuc basin. Authors: Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Tímea Pernyeszi, Ion-Andrei Nita. Source: Present Environment and Sustainable Development, De Gruyter, Vol. 13, No. 1, 2019</li> <li>8. Validation and quality assurance of ascorbic acid determination in agricultural products. Authors: ONDREJ HEGEDŰS, KATARÍNA SZARKA, ALŽBETA HEGEDŰSOVÁ, ZSUZSANNA GÓDÁNY, MIROSLAV ŠLOSÁR, AURELIA CRISTINA NECHIFOR and SZENDE TONK. Source: Revista de chimie, Volume 70, No. 7, 2019</li> <li>9. The analysis of the chemical composition of precipitation during the driest year from the last decade. Authors: Ágnes Keresztesi, Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Ion-Andrei Nita. Source: Present Environment and Sustainable Development, De Gruyter, Vol. 13, no. 1, 2019</li> </ol>

	<p>10. ION MARIUS NAFLIU, ALEXANDRA RALUCA GROSU (MIRON), HUSSAM NADUM ABDALRAHEEM AL-ANI, PAUL CONSTANTIN ALBU, GAVRIL GHEORGHIEVICI, MIHAELA EMANUELA CRACIUN, Neutralization with Simultaneously Separation of Aluminum Ions from Condensate Water through Cellulose Derivatives-Capillary Polypropylene Composite Membranes, <i>MATERIALE PLASTICE</i>, 56, No. 2, pages: 301-305, 2019.</p>
4	<p>Ágnes Keresztesi, Sandor Petres, Ghita Gina, Dumitru Florina-Diana, Mihaela Andreea Moncea, Alexandru Ozunu, Robert Szép*, Ammonium Neutralization Effect on Rainwater Chemistry in the Basins of the Eastern Carpathians – Romania, <i>Revista de Chimie</i>, Volume: 69, Issue: 1, Page: 57-63, 2018.</p> <ol style="list-style-type: none"> <li>1. Evolution of tropospheric ozone and relationship with temperature and NO<sub>x</sub> for the 2007-2016 decade in the Ciuc depression, Sándor Petres, Szabolcs Lányi, Marisanda Pîrîianu, Keresztesi Agnes, Cristina Aurelia Nechifor, <i>Revista de Chimie</i>, vol. 69, nr. 3, pp: , 2018</li> <li>2. Iono-molecular Separation with Composite Membranes. VII. Nitrophenols pertraction on capillary polypropylene S-EPDM composite membranes. Authors: ION MARIUS NAFLIU, HUSSAM NADUM ABDALRAHEEM AL ANI, ALEXANDRA RALUCA GROSU (MIRON), SZIDONIA KATALIN TANCZOS, IOANA MAIOR, AURELIA CRISTINA NECHIFOR. Source: <i>Materiale Plastice</i>, Vol. 55, Issue 4, 2018</li> <li>3. In silico analysis of 1,4 – butanediol heterologous pathway impact on <i>Escherichia coli</i> metabolism. Authors: Zsolt Bodor, Lehel Tompos, Aurelia Cristina Nechifor, Katalin Bodor. Source: <i>Revista de Chimie</i>, Vol. 70, No. 10, 2019</li> <li>4. The analysis of the chemical composition of precipitation during the driest year from the last decade. Authors: Ágnes Keresztesi, Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development</i>, De Gruyter, Vol. 13, no. 1, 2019</li> <li>5. Validation and quality assurance of ascorbic acid determination in agricultural products. Authors: ONDREJ HEGEDŰS, KATARÍNA SZARKA, ALŽBETA HEGEDŰSOVÁ, ZSUZSANNA GÓDÁNY, MIROSLAV ŠLOSÁR, AURELIA CRISTINA NECHIFOR and SZENDE TONK. Source: <i>Revista de chimie</i>, Volume 70, No. 7, 2019</li> <li>6. The influence of evapotranspiration and wet deposition on the variations of PM<sub>10</sub> concentration in the Ciuc basin. Authors: Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Tímea Pernyeszi, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development</i>, De Gruyter, Vol. 13, No. 1, 2019</li> <li>7. ION MARIUS NAFLIU, ALEXANDRA RALUCA GROSU (MIRON), HUSSAM NADUM ABDALRAHEEM AL-ANI, PAUL CONSTANTIN ALBU, GAVRIL GHEORGHIEVICI, MIHAELA EMANUELA CRACIUN, Neutralization with Simultaneously Separation of Aluminum Ions from Condensate Water through Cellulose Derivatives-Capillary Polypropylene Composite Membranes, <i>MATERIALE PLASTICE</i>, 56, No. 2, pages: 301-305, 2019.</li> </ol>
5	<p>Szép, R., Keresztes, R., Korodi A., Tonk, Sz., Niculae, A.G., Barloiu, A.M., Dew point – indirect particulate matter pollution indicator in the Ciuc basin – Harghita, Romania - <i>Revista de Chimie</i>, Volume: 67, Issue: 10, Page: 1914-1921, 2016.</p> <ol style="list-style-type: none"> <li>1. Developing the method for analytical determination of cadmium, arsenic and nickel in ambient air. Author(s): Gina Ghita, Maria-Iuliana Marcus, Irina-Elena Ciobotaru, Lucian Laslo, Ecaterina Marcu, Ioana Savin. Source: <i>Biointerface Research in Applied Chemistry</i>, Volume: 7, Issue: 4, Page: 2094-2097, 2017</li> <li>2. Statistical analysis of air pollution with specific regard to factor analysis in the Ciuc basin, Romania, Keresztes R., Rapo E., <i>STUDIA UBB CHEMIA</i>, LXII, 3, 2017 (p. 283-292)</li> <li>3. Evolution of tropospheric ozone and relationship with temperature and NO<sub>x</sub> for the 2007-2016 decade in the Ciuc depression, Authors: Sándor Petres, Szabolcs Lányi, Marisanda Pîrîianu, Source: <i>Revista de Chimie</i>, vol. 69, nr. 3, pp: 602-608, 2018</li> <li>4. Model driven analysis of the biosynthesis of 1,4-butanediol from renewable feedstocks in <i>Escherichia coli</i>. Authors: Zs. Bodor, Sz. Lanyi, B. Albert, K. Bodor, A.C. Nechifor, I. Miklossy. Source: <i>Revista de Chimie</i>, Vol. 79, No. 11, 2019</li> <li>5. In silico analysis of 1,4 – butanediol heterologous pathway impact on <i>Escherichia coli</i> metabolism. Authors: Zsolt Bodor, Lehel Tompos, Aurelia Cristina Nechifor, Katalin Bodor. Source: <i>Revista de Chimie</i>, Vol. 70, No. 10, 2019</li> <li>6. The influence of evapotranspiration and wet deposition on the variations of PM<sub>10</sub> concentration in the Ciuc basin. Authors: Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Tímea Pernyeszi, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development</i>, De Gruyter, Vol. 13, No. 1, 2019</li> <li>7. Validation and quality assurance of ascorbic acid determination in agricultural products. Authors: ONDREJ HEGEDŰS, KATARÍNA SZARKA, ALŽBETA HEGEDŰSOVÁ, ZSUZSANNA GÓDÁNY, MIROSLAV ŠLOSÁR, AURELIA CRISTINA NECHIFOR and SZENDE TONK. Source: <i>Revista de chimie</i>, Volume 70, No. 7, 2019</li> <li>8. The analysis of the chemical composition of precipitation during the driest year from the last decade. Authors: Ágnes Keresztesi, Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development</i>, De Gruyter, Vol. 13, no. 1, 2019</li> </ol>

	<p>9. Tímea Pernyeszi, Roland Farkas, János Kovács, Methylene Blue Adsorption Study on Microcline Particles in the Function of Particle Size Range and Temperature, <i>Minerals</i> 2019, 9, 555, Pages 1-14; doi:10.3390/min9090555.</p> <p>10. ION MARIUS NAFLIU, ALEXANDRA RALUCA GROSU (MIRON), HUSSAM NADUM ABDALRAHEEM AL-ANI, PAUL CONSTANTIN ALBU, GAVRIL GHEORGHIEVICI, MIHAELA EMANUELA CRACIUN, Neutralization with Simultaneously Separation of Aluminum Ions from Condensate Water through Cellulose Derivatives-Capillary Polypropylene Composite Membranes, <i>MATERIALE PLASTICE</i>, 56, No. 2, pages: 301-305, 2019.</p>
6	<p>Szép, R., MÁTYÁS L., Keresztes, R., Ghimpusan, M., - Tropospheric Ozone Concentrations - Seasonal and Daily Analysis and its Association with NO and NO<sub>2</sub> as a Function of NO<sub>x</sub> in Ciuc Depression – Romania – <i>Revista de Chimie</i>, vol. 67., 2., Page: 205-213, 2016.</p> <ol style="list-style-type: none"> <li>1. DUMITRA DANIELA CLEJ (SLAVE), IOANA LAVINIA ARDELEAN, GHEORGHE NECHIFOR, Applicability of Ferromagnetic Nanoparticles in the Retention of Heavy Metals from Aqueous Solutions, <i>Revista de chimie</i>, Volume 68, Issue: 6, Page: 1320-1324, 2017</li> <li>2. ALEXANDRA ANA CSAVDARI, CSABA RACZ, DANA MARIA SABOU, SZENDE AGNES TONK, ION DIN SPIRIDON, Economically Efficient Production of Hydro-Alcoholic Extracts from Medicinal Plants Study for Mentha Piperita L., <i>Revista de chimie</i>, Volume 67, Issue: 10, Page: 1906-1913, 2016</li> <li>3. Keresztes R., Rapo E., Statistical analysis of air pollution with specific regard to factor analysis in the Ciuc basin, Romania, <i>STUDIA UBB CHEMIA</i>, LXII, 3, 2017 (p. 283-292)</li> <li>4. I.F. Barna, M.A. Pocsai, S. Lökös, L. Mátyás, Rayleigh–Bénard convection in the generalized Oberbeck–Boussinesq system, <i>Chaos, Solitons and Fractals</i>, Vol. 103, Page: 336-341, 2017. DOI: <a href="http://dx.doi.org/10.1016/j.chaos.2017.06.024">http://dx.doi.org/10.1016/j.chaos.2017.06.024</a></li> <li>5. Sándor Petres, Szabolcs Lányi, Marisanda Pîrîianu, Agnes Keresztes, A.C. Nechifor, Evolution of tropospheric ozone and relationship with temperature and NO<sub>x</sub> for the 2007-2016 decade in the Ciuc depression, <i>Revista de Chimie</i>, vol. 69, nr. 3, pp: 602-608, 2018</li> <li>6. The influence of evapotranspiration and wet deposition on the variations of PM<sub>10</sub> concentration in the Ciuc basin. Authors: Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Tímea Pernyeszi, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development</i>, De Gruyter, Vol. 13, No. 1, 2019</li> <li>7. The analysis of the chemical composition of precipitation during the driest year from the last decade. Authors: Ágnes Keresztes, Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development</i>, De Gruyter, Vol. 13, no. 1, 2019</li> <li>8. Validation and quality assurance of ascorbic acid determination in agricultural products. Authors: ONDREJ HEGEDŰS, KATARÍNA SZARKA, ALŽBETA HEGEDŰSOVÁ, ZSUZSANNA GÓDÁNY, MIROSLAV ŠLOŠÁR, AURELIA CRISTINA NECHIFOR and SZENDE TONK. Source: <i>Revista de chimie</i>, Volume 70, No. 7, 2019</li> <li>9. Evaluation of the Environmental Impact by FTIR Gas Analysis of Organic Solvents Used in the Pharmaceutical Industry. Authors: Sanda Voinea, Theodor Axene, Alexandra Serban, Cornelia Nichita, <i>Revista de Chimie</i>, Vol. 69, nr. 12, 2018</li> </ol>
7	<p>Robert SZÉP &amp; László MÁTYÁS - The role of regional atmospheric stability in high-PM<sub>10</sub> concentration episodes in Miercurea Ciuc (Harghita) – <i>Carpathian Journal of Earth and Environmental Sciences</i>, Volume: 9, Issue: 2, Page: 241-250, 2014.</p> <ol style="list-style-type: none"> <li>1. DUMITRA DANIELA CLEJ (SLAVE), IOANA LAVINIA ARDELEAN, GHEORGHE NECHIFOR, Applicability of Ferromagnetic Nanoparticles in the Retention of Heavy Metals from Aqueous Solutions, <i>Revista de chimie</i>, Volume 68, Issue: 6, Page: 1320-1324, 2017</li> <li>2. Gina Ghita, Maria-Iuliana Marcus, Irina-Elena Ciobotaru, Lucian Laslo, Ecaterina Marcu, Ioana Savin, Developing the method for analytical determination of cadmium, arsenic and nickel in ambient air, <i>Biointerface Research in Applied Chemistry</i>, Volume: 7, Issue: 4, Page: 2094-2097, 2017</li> <li>3. Keresztes R., Rapo E., Statistical analysis of air pollution with specific regard to factor analysis in the Ciuc basin, Romania, <i>STUDIA UBB CHEMIA</i>, LXII, 3, 2017 (p. 283-292)</li> <li>4. I.F. Barna, M.A. Pocsai, S. Lökös, L. Mátyás, Rayleigh–Bénard convection in the generalized Oberbeck–Boussinesq system, <i>Chaos, Solitons and Fractals</i>, Vol. 103, Page: 336-341, 2017. DOI: <a href="http://dx.doi.org/10.1016/j.chaos.2017.06.024">http://dx.doi.org/10.1016/j.chaos.2017.06.024</a></li> <li>5. Sándor Petres, Szabolcs Lányi, Marisanda Pîrîianu, Agnes Keresztes, A.C. Nechifor, Evolution of tropospheric ozone and relationship with temperature and NO<sub>x</sub> for the 2007-2016 decade in the Ciuc depression, <i>Revista de Chimie</i>, vol. 69, nr. 3, pp: 602-608, 2018</li> <li>6. The influence of evapotranspiration and wet deposition on the variations of PM<sub>10</sub> concentration in the Ciuc basin. Authors: Réka Boga, Zsolt Bodor, Katalin Bodor, Szende Tonk, György Deák, Tímea Pernyeszi, Ion-Andrei Nita. Source: <i>Present Environment and Sustainable Development</i>, De Gruyter, Vol. 13, No. 1, 2019</li> </ol>

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	<b>Indice H = 7</b>

### CRITERIUL 3: CAPACITATEA DE SUSȚINERE A ACTIVITĂȚILOR DE CERCETARE

Nr. crt.	LIDER/DIRECTOR DE PROIECT ÎN GRANTURI INTERNAȚIONALE CĂȘTIGATE PRIN CONCURS	SUMA	DURATA (LUNI)	FUNCȚIA
1	Contract nr. SEE/A/080/2.4/X Proiect: WideTheSEEbySuccMod	150.000 €	24	Proiect manager
2	Contract nr. SAVE 4.1031/A/02-002 Proiect: Save Agency	85.508 €	36	Proiect manager
3	Contract nr. ES/05/B/F/PP-149315 Proiect: Leonardo da Vinci – E-SUN	43.531 €		Proiect manager
4	Contract nr. EIE/06/209/SI2.448705 Proiect: Energy Trophy+ Competition	35.673 €	38	Proiect manager
5	Contract nr. EIE/05/210/SI2.420236 Proiect: RESINBUIL – Introduction of RES in Building sector	18.936 €	25	Proiect manager
6	Contract nr. EIE/05/094/SI2.419551 Proiect: e-TREAM, e-learning tool for training Energy Agencies in mobility management and alternative fuels	13.028 €	32	Proiect manager

Nr. crt.	LIDER/DIRECTOR DE PROIECT ÎN GRANTURI NAȚIONALE CĂȘTIGATE PRIN CONCURS	SUMA	DURATA (LUNI)	FUNCȚIA
1	<b>Contract Nr. 304/321/18.05.2011</b> Programul Operațional Sectorial Creșterea Competitivității Economice, axa prioritară – Tehnologia Informației și Comunicațiilor pentru sectoarele privat și public; domeniul major de intervenție – Dezvoltarea și Creșterea Eficienței Serviciilor Publice Electronice; – Realizarea și implementarea unui sistem complex e-guvernare la Consiliul Județean Harghita;	6.062.626,60 RON	28	Director/ Manager Proiect

### ÎNDEPLINIREA STANDARDELOR MINIMALE

		Nr. puncte candidat	Nr. puncte minime
Criteriul 1	Nr. total articole în reviste ISI ca autor principal/corespondent	14	5
	AIS (5 articole)	4.052	3.5
	Număr total articole în reviste BDI/ISI proceedings	11	3
Criteriul 2	Indicele Hirsch (se exclud autocitățile)	7	4
Criteriul 3	Proiecte de cercetare	6 internațional 1 național	Director/Manager 1 internațional sau 2 național

Standardele minime sunt îndeplinite.

CS I dr. ing. Szép Robert Eugen