

CURRICULUM VITAE

Otilia Ana CULICOV

1a. Present workplace

Joint Institute for Nuclear Research,
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1b. Home permanent workplace

National Institute for R&D in Electrical
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2. Personal Information:

Date of Birth: October 23, 1973
Place of Birth: Baia Mare, Romania
Nationality: Romania

3. Educational Background:

- **1991-1996** Graduate of Mathematics and Physics, North University of Baia Mare, Faculty of Sciences
- **1996-1997** M.S. in environmental physics, University of Oradea, Romania
Thesis: ERS study of free radicals resulted during adsorption of natural terpenes on zeolites
- **2002-2006** Ph.D. in analytical chemistry, "Al.I. Cuza" University, Iasi, Romania
Thesis: Active biomonitoring and neutron activation analysis applied to environmental studies

4. Professional career:

- **1996 –1998** – Physicist, Physical-chemical laboratory, Institute for research and development in mining, Baia Mare, Romania.
- **1998 – 2002** - Research Assistant, NAA Department, Frank Laboratory of Neutron Physics, Joint Institute for Nuclear, Dubna, Russian Federation.
- **2002 – 2006** – Research Scientist, NAA Department, Frank Laboratory of Neutron Physics, Joint Institute for Nuclear, Dubna, Russian Federation.
- **2006-2008**- Senior researcher NAA Department, Frank Laboratory of Neutron Physics, Joint Institute for Nuclear, Dubna, Russian Federation.
- **2008-2013** - Scientific secretary - Frank Laboratory of Neutron Physics, Joint Institute for Nuclear, Dubna, Russian Federation.
- **2013-now** - Deputy director - Frank Laboratory of Neutron Physics, Joint Institute for Nuclear, Dubna, Russian Federation.

5. Scientific-organizational activity:

Since 2007 member of FLNP JINR Scientific and Technical Council

2008-2013 member of JINR Scientific and Technical Council

Since 2000 Co-chairman, scientific secretary, and member of organizing committees of 17 international conferences and schools in Slovakia, Romania, Montenegro and JINR

Since 2010 member of scientific committee of "Journal of Science and Arts" (Romania)

Since 2016 reviewer at Journal of Radioanalytical and Nuclear Chemistry

2008-2013 member of the editorial board of "JINR News"

Since 2005 Vice-Leader, Romanian Physicists' Group at the JINR Dubna

2000-2002 Member of the executive council of the Association of the Young Scientists and Specialists
JINR

6. Awards and fellowships:

2004- First Prize of JINR

2009- Encouraging Prize of JINR

2009- Encouraging Prize of FLNP JINR

2014- Second Prize of FLNP JINR

2015- Encouraging Prize of JINR

2017- Second Prize of FLNP JINR

7. Research interests:

Applying of neutron activation analysis and nuclear related methods in:

- environmental studies including heavy metal atmospheric deposition;
- foodstuff and forages ecology including investigation microelement deficiency;
- geological studies including anoxic Black Sea sediments, Clarion-Clipperton abyssal plane clay and polymetallic micronodules, geological deposits in Carpathian Mountains;
- geoecological retrospective pollution studies;
- workplace monitoring and occupational exposure assessment;
- water purification by means of biomass.

LIST OF PUBLICATIONS BY Otilia Ana CULICOV

(2013-2018)

1. Dului O. G., Lyapunov S. I., Gorbunov A. V., Ricman C., Brustur T., Szobotka S. A., Dimitriu R. G., Pop C., Frontasyeva M. V., **Culicov O. A.**, Iovea M., On the heavy elements content of sediments and rocks from two semiclosed ecosystems: proglacial lake Bâlea (Făgăraș Mountainins) and crater lake St. Ana (Harghita Mountains), Physics of Particles and Nuclei 01/2013; 10(5):469–475. (JIF=0.67/2012)
2. Setnescu T., Bancuta I., Setnescu R., Bancuta R., Chilian A., Bumbac M., Chelărescu E.D., **Culicov O.**, Frontasyeva M.V., Characterization of some therapeutic muds collected from different sites in Romania, Revue Roumaine de Chimie, 58(7-8), 599-610 (JIF=0.39/2013, RIS=0.068/2012)
3. Zinicovscaia I., Mitina T., Lupascu T., Duca Gh., Frontasyeva M.V., **Culicov O.A.** Study of chromium adsorption onto activated carbon. Water, Air, & Soil Pollution, 1/2014, 225(3), 1889-1894, 2014, DOI: 10.1007/s11270-014-1889-x, (IF=1.685/2013 RIS=1.14751)
4. Zinicovscaia I., Cepoi L., Valuta A., Rudi L., **Culicov O. A.**, Frontasyeva M. V., Kirkesali E. I., Pavlov S. S., Mitina T. Nostoc linckia as biosorbent of chromium and nickel from electroplating industry wastewaters. Journal of Material Science and Engineering B, 2014, v.4, № 8, p. 242-247.

5. **Culicov O.A.**, Zinicovscaia I., Setnescu T., Setnescu R., Frontasyeva M.V., Elemental content of edible oils studies by neutron activation analysis, *Revue Roumaine de Chimie*, 2014, 59(8), 663-667 (IF=0.393/ 2013-2014)
6. Cepoi L., Rudi L., Chiriac T., Valuta A., Zinicovscaia I., Duca Gh., Kirkesali E., Frontasyeva M.V., **Culicov O.**, Pavlov S.S., Bobrikov I., Biochemical changes in some cultures of cyanobacteria at the synthesis of silver nanoparticles, *Can J Microbiol.* 2015 Jan; 61(1):13-21. doi: 10.1139/cjm-2014-0450 (IF=1.18/2013, RIS=1,597)
7. Sturza R., Bilici C., Zinicovscaia I., **Culicov O.A.**, Gundorina S.F., Duca Gh., Moldavian wine analysis by ICP-AES and NAA techniques: comparison study, *REVUE ROUMAINE DE CHIMIE* 60(11-12) 1065-1071 (IF=0.311/2014-2015 RIS=0,248), 2015
8. Cirstea C.D., Lungu M., Balagurov A.M., Marinescu V., **Culicov O.**, Cirstea V., Shape memory NiTi and NiTiCu alloys obtained by spark plasma sintering process, *Advanced Engineering Forum* Vol 13, pp 83-90, (IF=1.508/2014) 2015
9. Tugulan L.C., Dului O.G., Bojar A-V., Dumitras D., Zinicovskaia I., **Culicov O.A.** and Frontasyeva M.V., Late Quaternary climatic conditions in Dobrogea (Romania) as reflected by loess geochemistry, *Quaternary International*, 399 (2016) 100-110 (IF=2.34/ 2015-2016)
10. Zinicovscaia I., Cepoi L., Chiriac T., **Culicov O.A.**, Frontasyeva M., Pavlov S., Kirkesali E., Akshintse A., Rodlovskaya E., *Spirulina platensis* as biosorbent of chromium and nickel from industrial effluents, *Desalination and Water Treatment*, 57 (2016) 11103–11110 (IF= 0.93/2015-2016)
11. Dobrin I., Cernikov A., Kulikov S., Buzdavin A., **Culicov O.**, Morega A.M., Nedelcu A., Morega M., Popovici I., and Dobrin A., A 4 T HTS Magnetic Field Generator, Conduction Cooled, for Neutron Physics Spectrometry, *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*, VOL. 26, NO. 3, APRIL 2016 (IF=1.44/2015-2016) RIS=0.562
12. **Culicov O.A.**, Dului O.G., Zinicovscaia I., Study of elemental grouping in moss-bags as a function of height and location of the exposure site, *Romanian Reports in Physics* Vol. 68, No. 2, P. 736–745, 2016 (IF=0.92/2015-2016) RIS=0.483
13. **Culicov O.A.**, Zinicovscaia I., Dului O.G., Active *Sphagnum girgensohnii* Russow Moss Biomonitoring of an Industrial Site in Romania: Temporal Variation in the Elemental Content, *Bulletin of Environmental Contamination and Toxicology*, DOI 10.1007/s00128-016-1780-0 2016 May;96(5):650-6 (IF=1.255/2014-2015) RIS=0.532-accepted, RIS=0.532
14. **Culicov O.A.**, Yurukova L., Dului O., Zinicovscaia I., The elemental content of mosses and lichens from Livingston Island (Antarctica) as determined by NAA, *Environmental Science and Pollution Research* 2017, Volume 24, Issue 6, pp 5717–5732 (IF=2.97/2015-2016) RIS=1.162
15. Chiriac T., Zinicovscaia I., Cepoi L., Rudi L., **Culicov O.**, Frontasyeva M., Selenium uptake and assessment of the biochemical changes in *Arthrospira (Spirulina) platensis* biomass during the synthesis of selenium nanoparticles, *Canadian Journal of Microbiology*, 2017, 63(1): 27-34, dx.doi.org/10.1139/cjm-2016-0339 (IF=1.17/2015-2016), RIS=0.658
16. Zinicovscaia I., Hramco C., Vergel K., Gundorina S., **Culicov O.**, Yushin N., Frontasyeva M., Duca Ghe., Air pollution study in the Republic of Moldova using moss biomonitoring technique, *Bulletin of Environmental Contamination and Toxicology*, 2017, Vol. 63, No. 1 : pp. 27-34 DOI: 10.1007/s00128-016-1989-y, (IF=1.59/2014-2015) RIS=0.532
17. Zinicovscaia I., Cepoi L., Chiriac T., Mitina T., Grozdov D., Yushin N., **Culicov O.** Application of *Arthrospira (spirulina) platensis* biomass for silver removal from aqueous solutions.

International Journal of Phytoremediation, 2017, vol 19, No.11, 1053-1058
DOI:10.1080/15226514.2017.1319332. (IF= 2.085/2015) RIS=0.746

18. Zinicovscaia I., Dului O.G., **Culicov O.**, Sturza R., Bilici C., Gundorina S. Geographical origin identification of Moldavian wines by neutron activation analysis. Food Analytical Methods, 2017, Volume 10, Issue 11, pp 3523–3530 DOI: 10.1007/s12161-017-0913-3 (IF= 2.167/2015) RIS=1.245
19. Stihi C., Popescu I.V., Frontasyeva M., Radulescu C., Ene A., **Culicov O.**, Zinicovscaia I., Dulama I.D., Cucu-Man S., Todoran R., Gheboianu A.I., Bucurica A., Bancuta I., Dima G., Characterization of Heavy Metal Air Pollution in Romania Using Moss Biomonitoring, Neutron Activation Analysis, and Atomic Absorption Spectrometry, 2017, Analytical Letters Vol. 50:17, 2851-2858 <http://dx.doi.org/10.1080/00032719.2016.1275661>, (IF= 1.15/2016) RIS=0.353
20. Cirstea C.D., Mihai M., Cirstea V., Patroi D., Chivu H., Radulescu F., Tsakiris V., **Culicov O.**, Balagurov A.M., Phase relations in the NiTiCu shape memory materials used in medicine applications, Rev. Roum. Chim., 2017, 62(6-7), 539-544, (IF= 0,246/2016) RIS=0.248
21. Gheboianu A.I., Setnescu T., Setnescu R., **Culicov O.** and Zinicovscaia I. The influence of different types of pesticides on elemental profiles of some fruit trees: apple and plum, AIP Conference Proceedings 1916, 040011 (2017)
22. Zinicovscaia I, **Culicov O.A.**, Dului O.G., Yushin N.S., Gundorina S.F. Major- and trace-element distribution in cigarette tobacco, ash and filters, Journal of Radioanalytical and Nuclear Chemistry, 2018, <https://doi.org/10.1007/s10967-018-5808-2>, (IF=1.181/2017) RIS=0.591
23. Zinicovscaia I, Dului O., **Culicov O.A.**, Frontasyeva M.V., Sturza R, major and trace elements distribution in Moldavian soils, Romanian Reports in Physics 70, 701 (2018), (IF= 1.467/2016) RIS= 0.483
24. Zinicovscaia I, Cepoi L., Povar I., Chiriac T., Rodlovskaya E., **Culicov O.A.**, Metal Uptake from Complex Industrial Effluent by Cyanobacteria *Arthrospira platensis*, Water Air Soil Pollut (2018) 229:220, <https://doi.org/10.1007/s11270-018-3873-3> (IF=1.769/2017) RIS= 0.983