

**LISTA DE LUCRĂRI - Conferențiar dr. ing. Iulian BĂNCUȚĂ**

**Selecție de 12 articole publicate considerate relevante de către candidat în domeniul de doctorat vizat:**

- [1] ***I.Bancuta***, D.D. Let, A.Stancu, A.Gheboianu, Gh.V.Cimpoca, *Studies of light induced degradation over solar cells under controlled illumination conditions, Proceedings of NANOSOLNET International Symposium, ISBN 978-973-614-414-1, PP. 178-183, Eforie Nord, Romania, 12-14 June, 2008*
- [2] ***I.Băncuță***, Gh. V. Cimpoca, A. Stancu, R. Băncuță, G. Brezeanu, *The influence of geometry and electrical resistance of the thermoelectric legs in the  $\mu$ -TEC design, University Politehnica Of Bucharest Scientific Bulletin Series C-Electrical Engineering And Computer Science, Vol. 73, Nr. 4, ISSN 1454-234x, pp.213-224, 2011; Factor de impact 0.3, AIS 0.020, ISSN: 2286-3540, EISSN: 2286-3559 (Accession Number: WOS:000421687700017) <https://www.webofscience.com/wos/woscc/full-record/WOS:000421687700017>*
- [3] ***I.Bancuta***, I.V.Popescu, A. Chilian, A. Stancu, R. Bancuta, R. Setnescu, V. Cimpoca, *PIXE and EDXRF methods applied in Bi-Te-Se thermoelements study, Romanian Journal of Physics, ISSN 1221-146X, Volume 56, No 9-10, pp.1116-1123, 2011; Factor de impact 1.5, AIS 0.203. ISSN: 1221-146X, EISSN: 1221-146X (Accession Number: WOS:000297452700009) <https://www.webofscience.com/wos/woscc/full-record/WOS:000297452700009>*
- [4] S. Jipa, R. Setnescu, T. Zaharescu, T. Setnescu, L. M. Gorghiu, ***I.Bancuta***, E.D. Chelarescu, „Copper diffusion in cable-insulating materials by chemiluminescence and DSC techniques”, *Journal of Thermal Analysis and Calorimetry, Volume 122, Issue 1, pp 251-259, 2015, DOI10.1007/s10973-015-4668-z, Factor de impact 4.4, AIS 0.444, ISSN: 1388-6150, EISSN: 1588-2926 (Accession Number: WOS:000361431200028) <https://www.webofscience.com/wos/woscc/full-record/WOS:000361431200028>*
- [5] A. Chilian, O.R. Bancuta, ***I.Bancuta***, R.M. Ion, R. Setnescu, T. Setnescu, A. Gheboianu, V. Marinescu, C. Radulescu, „Characterization of ZnO and SnO<sub>2</sub>:F materials by SEM for their use in the manufacture of DSSC”, *Revue Roumaine de Chimie, 60(5-6), pp. 549-554, 2015; Factor de impact 0.5, AIS 0.052, ISSN: 0035-3930, (Accession Number:WOS:000370990000020) <https://www.webofscience.com/wos/woscc/full-record/WOS:000370990000020>*
- [6] A. Chilian, ***I.Bancuta***, O.-R. Bancuta, R.-M. Ion, R. Setnescu, T. Setnescu, *Electrical characterization of transparent conducting materials, Journal of Science and Arts, No. 3(40), pp. 619-634, 2017; Factor de impact 0.4, AIS 0.063, ISSN: 1844-9581, EISSN: 1844-9581 (Accession Number:WOS:000412467400021) <http://www.josa.ro/en/index.html?http%3A//www.josa.ro/en/josa.html>*
- [7] V. Miron-Alexe, ***I.Băncuță***, N. Vasile, *Hydroelectric Backup System for Off-Grid Households, IEEE Xplore, 9th International Conference on Electronics, Computers and Artificial Intelligence- ECAI 2017, June 29– July 01, INSPEC Accession Number: 17415545, 2017, DOI10.1109/ECAI.2017.8166448, WOS:000425865900064 <https://ieeexplore.ieee.org/document/8166448/>*
- [8] E. O. Virjoghe, ***I.Bancuta***, A. G. Husu, D. Cazacu, V. Florescu, *Measurement and numerical modelling of electric field in open type air substation, Journal of Science and Arts, Vol. 46, No. 1, 2019, pp. 249-259, 2019, Factor de impact 0.4, AIS 0.063, ISSN: 1844-9581, EISSN: 1844-9581 (Accession Number: WOS:000462065300025) [http://www.josa.ro/docs/josa\\_2019\\_4/c\\_05\\_Bancuta\\_1055-1066\\_12p.pdf](http://www.josa.ro/docs/josa_2019_4/c_05_Bancuta_1055-1066_12p.pdf)*
- [9] C. Cobianu, M. F. Stan, ***I.Bancuta***, N. Fidel, *Investigation of Ni-Cu thin films magnetic sensors deposited on SiO<sub>2</sub> substrates by sputtering, Journal of Science and Arts, Vol. 49, No. 4, pp. 1055-*

1066, **2019**, **Factor de impact 0.4**, AIS 0.063, ISSN: 1844-9581, EISSN: 1844-9581 (Accession Number: WOS:000508420400027) [http://www.josa.ro/docs/josa\\_2019\\_4/c\\_05\\_Bancuta\\_1055-1066\\_12p.pdf](http://www.josa.ro/docs/josa_2019_4/c_05_Bancuta_1055-1066_12p.pdf)

- [10] **I.Bancuta**, D. Enescu, E.O. Virjoghe, *Characterisation of the Thermoelectric Materials for Energy Harvesting Applications*, 57<sup>th</sup> International Universities Power Engineering Conference (UPEC), 30 August 2022 - 02 September 2022, Istanbul, Turkey, pp. 1-6, ISBN978-1-6654-5505-3, DOI:10.1109/UPEC55022.2022.9917810, WOS:000886926200066, **2022**
- [11] A. Chilian, O.-R. Bancuta, **I.Bancuta**, I. V. Popescu, *A mathematical model for improving the ion chromatography method by applying external adjustment standards*, *Microchemical Journal*, Volume 177, 107302, **2022**, DOI10.1016/j.microc.2022.107302, **Factor de impact 4.8**, AIS 0.592, ISSN: 0026-265X, EISSN: 1095-9149 (Accession Number: WOS:000793743600009) <https://www.sciencedirect.com/science/article/abs/pii/S0026265X22001308>
- [12] A. Chilian, O.-R. Bancuta, **I.Bancuta**, I. V. Popescu, A. I. Gheboianu, N.-M. Tănase, M. Tuican, M. Zaharia, I. Zinicovscaia, *Extraction of heavy metals and phosphorus from sewage sludge with elimination of antibiotics and biological risks*, *Chemical Engineering Journal*, Volume 437, Part 1, 135298, **2022**, DOI10.1016/j.cej.2022.135298, **Factor de impact 15.1**, AIS 2.029, ISSN: 1385-8947, EISSN: 1873-3212 (Accession Number: WOS:000779493300001) <https://www.sciencedirect.com/science/article/abs/pii/S1385894722008026>

#### **Articole ISI publicate în ordinea apariției în reviste cotate ISI cu AIS nenul:**

- [1] I.V. Popescu, C. Stihî, Gh. V. Cimpoca, G. Dima, Gh. Vlaicu, A. Gheboianu, **I.Bancuta**, V. Ghisa, G. State, *Environmental samples analysis by atomic absorption spectrometry (AAS) and inductively coupled plasma – optical emission spectroscopy (ICP-AES)*, *Romanian Journal of Physics* 54 (7-8), pp. 741-746, **2009**, **Factor de impact 1.5**, AIS 0.203, ISSN: 1221-146X, EISSN: 1221-146X (Accession Number: WOS:000270604000017), [www.nipne.ro/rjp/2009\\_54\\_7-8/0741\\_0747.pdf](http://www.nipne.ro/rjp/2009_54_7-8/0741_0747.pdf)
- [2] I. V. Popescu, M. Frontasyeva, C. Stihî, G. V. Cimpoca, C. Radulescu, A. Gheboianu, C. Oros, G. Vlaicu, C. Petre, **I.Bancuta**, I. Dulama, *Nuclear and Nuclear Related Analytical Methods Applied in Environmental Research*, *Romanian Journal of Physics*, ISSN 1221-146X, Volume 55, No 7-8, pp. 821-829, **2010**; **Factor de impact 1.5**, AIS 0.203, ISSN: 1221-146X, EISSN: 1221-146X (Accession Number: WOS:000283884200019) <https://www.webofscience.com/wos/woscc/full-record/WOS:000283884200019>
- [3] GH. Vlaicu, I.V. Popescu, F. Parsan, N. Pavel, Mariana Bahrim, **I.Bancuta**, *Control of Ca in steels using Spark DATA technique*, *Romanian Reports in Physics*, Vol. 62, No. 2, P. 350–359, **2010**, **Factor de impact 2.7**, AIS 0.245, ISSN: 1221-1451, EISSN: 1841-8759 (Accession Number: WOS:000278749200012) <https://www.webofscience.com/wos/woscc/full-record/WOS:000278749200012>
- [4] R. Setnescu, **I. Bancuta**, T. Setnescu, V. Cimpoca, S. Jipa, I. V. Popescu, *Thermal characterization of semiconductor Bi<sub>2</sub> Te<sub>3</sub> materials using DSC*, *Journal of Science and Arts*, no. 1(12), pp. 95-102, eISSN 2068-3049, **2010**; **Factor de impact 0.4**, AIS 0.063, ISSN: 1844-9581, EISSN: 1844-9581 (Accession Number: WOS:000420589400014) <https://www.webofscience.com/wos/woscc/full-record/WOS:000420589400014>
- [5] G. State, I. V. Popescu, A. Gheboianu, C. Radulescu, I. Dulama, **I. Bancuta**, R. Stirbescu, *Lichens as biomonitors of heavy metal air pollution in the Targoviste area*, *Journal of Science and Arts*, no. 1(12), pp 119-124, eISSN 2068-3049, **2010**; **Factor de impact 0.4**, AIS 0.063, ISSN: 1844-9581, EISSN: 1844-9581 (Accession Number: WOS:000420589400018) <https://www.webofscience.com/wos/woscc/full-record/WOS:000420589400018>
- [6] Gh. Vlaicu, **I. Bancuta**, C. Stihî, G. State, A. Gheboianu, *The study of scale formation on hot rolled ingots and billets*, *Journal of Science and Arts*, no. 1(12), pp 161-164, eISSN 2068-3049, **2010**; **Factor de impact 0.4**, AIS 0.063, ISSN: 1844-9581, EISSN: 1844-9581 (Accession Number: WOS:000420589400023)

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- [7] G. State, I. V. Popescu, A. Gheboianu, C. Radulescu, I. Dulama, **I. Bancuta**, R. Stirbescu, *Identification of Air Pollution Elements in Lichens Used as Bioindicators, by the XRF and AAS Methods, Romanian Journal of Physics*, No 1-2, ISSN 1221-146X, Volume 56, pp. 240-249, **2011**, WOS:000288830200027 <https://www.webofscience.com/wos/woscc/full-record/WOS:000288830200027>
- [8] **I. Băncuță**, Gh. V. Cimpoca, A. Stancu, R. Băncuță, G. Brezeanu, *The influence of geometry and electrical resistance of the thermoelectric legs in the  $\mu$ -TEC design, University Politehnica Of Bucharest Scientific Bulletin Series C-Electrical Engineering And Computer Science*, Vol. 73, Nr. 4, ISSN 1454-234x, pp.213-224, **2011**; Factor de impact 0.3, AIS 0.020, ISSN: 2286-3540, EISSN: 2286-3559 (Accession Number: WOS:000421687700017) <https://www.webofscience.com/wos/woscc/full-record/WOS:000421687700017>
- [9] A. Chilian, I. V. Popescu, C. Radulescu, Gh. V. Cimpoca, R. Bancuta, **I. Bancuta**, A. Gheboianu, *Effect of Zinc supplemetation on growth, biochemical process and yield in Zea Mays, Journal of Science and Arts*, no. 3(16), pp 471-478, **2011**; Factor de impact 0.4, AIS 0.063, ISSN: 1844-9581, EISSN: 1844-9581 (Accession Number: WOS:000420639500019) <https://www.webofscience.com/wos/woscc/full-record/WOS:000420639500019>
- [10] **I. Bancuta**, I.V.Popescu, A. Chilian, A. Stancu, R. Bancuta, R. Setnescu, V. Cimpoca, *PIXE and EDXRF methods applied in Bi-Te-Se thermoelements study, Romanian Journal of Physics*, ISSN 1221-146X, Volume 56, No 9-10, pp.1116-1123, **2011**; Factor de impact 1.5, AIS 0.203. ISSN: 1221-146X, EISSN: 1221-146X (Accession Number: WOS:000297452700009) <https://www.webofscience.com/wos/woscc/full-record/WOS:000297452700009>
- [11] I. V. Popescu, M. Frontasyeva, C. Stih, Gh. V. Cimpoca, C. Radulescu, G. State, A. Gheboianu, C. Oros, O. Culicov, **I. Bancuta**, I. Dulama; *Atomic and nuclear methods applied in the study of heavy polluting elements, Romanian Reports in Physics*, Volume 63, Supplement S, pp. 1205-1214, **2011**, Factor de impact 2.7, AIS 0.245, ISSN: 1221-1451, EISSN: 1841-8759 (Accession Number:WOS:000298196900008, [Microsoft Word - art08Popescu.doc \(nipne.ro\)](https://www.microsoft.com/word/art08Popescu.doc))
- [12] Gh. Vlaicu, **I. Bancuta**, N. Pavel, F. Parsan, I. V. Popescu, O. R. Bancuta, *Application of spectrochemical analysis by solid solution technique to ferro-alloys, Journal of Science and Arts*, no. 2(15), pp 241-247, eISSN 2068-3049, **2011**; Factor de impact 0.4, AIS 0.063, ISSN: 1844-9581, EISSN: 1844-9581 (Accession Number: WOS:000420597900015) <https://www.webofscience.com/wos/woscc/full-record/WOS:000420597900015>
- [13] I. D. Dulama, I. V. Popescu, Ghe. V. Cimpoca, C. Radulescu, I. A. Bucurica, **I. Bancuta**, *Quartz Crystal Microbalance: Nano-sensor for cyanide detection, Journal of Science and Arts Year 12*, No. 2(19), pp. 201-206, **2012**, Factor de impact 0.4, AIS 0.063, ISSN: 1844-9581, EISSN: 1844-9581 (Accession Number: WOS:000420646800012) <https://www.webofscience.com/wos/woscc/full-record/WOS:000420646800012>
- [14] T. Setnescu, **I. Bancuta**, R. Setnescu, R. Bancuta, A. Chilian, E.D. Chelărescu, O. Culicov, M. Frontasieva, M. Bumbac, „Characterization of some therapeutic muds collected from different sites in Romania”, *Rev. Roum. Chim.*, 58(7-8), pp.599-610, **2013**; Factor de impact 0.5, AIS 0.052, ISSN: 0035-3930, EISSN: N/A (Accession Number: WOS:000334322500005) <https://www.webofscience.com/wos/woscc/full-record/WOS:000334322500005>
- [15] S. Jipa, R. Setnescu, T. Zaharescu, T. Setnescu, L. M. Gorghiu, **I. Bancuta**, E.D. Chelarescu, „Copper diffusion in cable-insulating materials by chemiluminescence and DSC techniques”, *Journal of Thermal Analysis and Calorimetry*, Volume 122, Issue 1, pp 251-259, 2015, DOI10.1007/s10973-015-4668-z, Factor de impact 4.4, AIS 0.444, ISSN: 1388-6150, EISSN: 1588-2926 (Accession Number: WOS:000361431200028) <https://www.webofscience.com/wos/woscc/full-record/WOS:000361431200028>
- [16] A. Chilian, **I. Bancuta**, O.R. Bancuta, R. Setnescu, R.-M. Ion, C. Radulescu, C. Stih, I.V. Popescu, Gh. V. Cimpoca, „Study of the influence of Zn concentration on the absorption and transport of Fe in maize by AAS and EDXRF analysis techniques”, *Romanian Reports in Physics*, Vol. 67, No. 3, pp. 309-314, **2013**, Factor de impact 0.3, AIS 0.020, ISSN: 1221-1451, EISSN: 1841-8759 (Accession Number: WOS:000314322500005) <https://www.webofscience.com/wos/woscc/full-record/WOS:000314322500005>

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- [17] A. Chilian, O.R. Bancuta, **I.Bancuta**, R.M. Ion, R. Setnescu, T. Setnescu, A. Gheboianu, V. Marinescu, C. Radulescu, „Characterization of ZnO and SnO<sub>2</sub>:F materials by SEM for their use in the manufacture of DSSC”, *Revue Roumaine de Chimie*, 60(5-6), pp. 549-554, 2015; Factor de impact 0.5, AIS 0.052, ISSN: 0035-3930, (Accession Number:WOS:000370990000020) <https://www.webofscience.com/wos/woscc/full-record/WOS:000370990000020>
- [18] O.R. Bancuta, A.Chilian, **I.Bancuta**, R.-M. Ion, R. Setnescu, T. Setnescu, A. Gheboianu, M. Lungulescu, FT-IR and UV-Vis characterization of grape extracts used as antioxidants in polymers, *Revue Roumaine de Chimie*, 60(5-6), pp. 571-577, 2015; Factor de impact 0.5, AIS 0.052, ISSN: 0035-3930, (Accession Number:WOS:000370990000023) <https://www.webofscience.com/wos/woscc/full-record/WOS:000370990000023>
- [19] O.R. Bancuta, A. Chilian, **I. Bancuta**, R.-M. Ion, R.Setnescu, T. Setnescu, A. Gheboianu, Improvement of spectrophotometric method for determination of phenolic compounds by statistical investigations, *Romanian Journal of Physics*, Vol 61, No. 7-8, pp. 1255-1264, **2016**, Factor de impact 1.5, AIS 0.203, ISSN: 1221-146X, EISSN: 1221-146X (Accession Number: WOS:000385603700011) [www.nipne.ro/rjp/2016\\_61\\_7-8/RomJournPhys.61.p1255.pdf](http://www.nipne.ro/rjp/2016_61_7-8/RomJournPhys.61.p1255.pdf)
- [20] D. Avram, N. Angelescu, D. N. Ungureanu, A. Gheboianu, **I.Băncuță**, T. Setnescu, Study on bioactivity of phosphocalcic glasses, *Journal of Optoelectronics and Advanced Materials*, Volume: 18, Issue: 7-8 Pages: 691-696, **2016**; Factor de impact 0.5, AIS 0.203, ISSN: 1454-4164, EISSN: 1841-7132 (Accession Number: WOS:000383819800016) [http://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E6KOveZDFIqN9VBnkYS&page=1&doc=6](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E6KOveZDFIqN9VBnkYS&page=1&doc=6)
- [21] D. Avram, N. Angelescu, D. N. Ungureanu, I. Ionita, A. Gheboianu, **I.Băncuță**, Study of phosphocalcic glasses SiO<sub>2</sub>-CaO-P<sub>2</sub>O<sub>5</sub> System with and without silver I.Synthesis of glasses and characterization by WD-XRF and XRD, *Revista de chimie*, vol. 68, nr. 5, pp. 944-948, **2017**; Factor de impact 1.755, AIS 0.064, ISSN: 0034-7752, EISSN: 0034-7752 (Accession Number: WOS:000405816300011) [http://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E6KOveZDFIqN9VBnkYS&page=1&doc=2](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E6KOveZDFIqN9VBnkYS&page=1&doc=2)
- [22] D. Avram, N. Angelescu, D. N. Ungureanu, I. Ionita, **I. Bancuta**, A. Gheboianu, I.Study of some phosphocalcic glasses's proprieties from CaO-SiO<sub>2</sub>-P<sub>2</sub>O<sub>5</sub> system with and without silver II.The bioactivity analysis by FTIR, SEM methods and microbiological study of silver-doped glasses, *Revista de chimie*, vol. 68, nr. 6, pp. 1188-1192, 2017, Factor de impact 1.755, AIS 0.064, ISSN: 0034-7752, EISSN: 0034-7752 (Accession Number: WOS:000408702900009) [http://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E6KOveZDFIqN9VBnkYS&page=1&doc=1](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E6KOveZDFIqN9VBnkYS&page=1&doc=1)
- [23] C. Stih, I. V. Popescu, M. Frontasyeva, C. Radulescu, A. Ene, O. Culicov, I. Zinicovscaia, I.D. Dulama, S. Cucu-Man, R. Todoran, A. Gheboianu, A. Bucurica, **I.Bancuta**, G. Dima, Characterization of Heavy Metal Air Pollution in Romania Using Moss Biomonitoring, Neutron Activation Analysis, and Atomic Absorption Spectrometry, *Analytical Letters*, Factor de impact 2.0, AIS 0.239, ISSN: 0003-2719, 1532-236X, vol. 50, Issue 17, pp. 2851-2858, 2017; DOI10.1080/00032719.2016.1275661, (Accession Number: WOS:000415951900015) <https://www.growkudos.com/publications/10.1080%25252F00032719.2016.1275661/reader>
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## Programe/proiecte naționale/internationale:

| Nr. crt. | Programul/Proiectul  | Funcția     | Perioada: de la ...până la... |
|----------|--|-------------|-------------------------------|
| 1        | PNCDI- CERES:4-209-12.11.2004<br><i>Cristalochimia arsenopiritei din zacamintele aurifere localizate în Carpatii Meridionali (Valea lui Stan, Costesti, Jidostita) - variatii compozitionale și defecte structurale (capcane pentru Au) ASPIRAU »</i>    | Participant | 2004-2006                     |
| 2        | PNCDI-MATNANTECH nr. 250(408)/12.10.2004 « Tehnologii pentru realizarea microgeneratoarelor termoelectrice cu filme nanometrice – MICROTEC”  | Participant | 2004-2006                     |
| 3        | PNCDI-MATNANTECH nr. 99/25.10.2004 « Tehnologii noi de realizare a dispozitivelor fotovoltaice cu eficienta de conversie crescuta bazate pe nanostructurarea suprafetei prin tehnici de porozificare a substratului semiconductor monocristalin – SCELL” | Participant | 2004-2006                     |
| 4        | PNCDI-MATNANTECH « Tehnologii avansate de obtinere a nanomaterialelor cu proprietati controlate pentru finisarea compozitelor din lemn – FINAMAT”  | Participant | 2004-2006                     |
| 5        | CTR 101/25.10.2004, PNCDI-MATNANTECH, „Tehnologii pentru realizarea dispozitivelor microfluidice prin microprocesarea siliciului cu aplicatii în transferul termic și biologie – μCANTECH”   | Participant | 2004-2007                     |

|    |   |             |                                      |
|----|---|-------------|--------------------------------------|
| 6  | CTR. 4_214/11.11.2004, Program PNCDI-CERES, "Procese de interacție ion atom și ion suprafața la energii joase și intermediare – PIASENI"  | participant | 2004-2007                            |
| 7  | Grant de cercetare între Universitatea Valahia Targoviste și Institutul Unificat de Cercetari Nucleare Dubna, Moscova, Rusia (Joint Institute for Nuclear Research, Dubna, Moscow Region) „Heavy metal pollution of the Dambovita County, Romania, studied by nuclear and related analytical techniques”- Theme N-06-4-1036-2004/2007 | Participant | 2005-2006<br>2006-2007-<br>2008-2009 |
| 8  | CTR. 05-D11-30/05.10.2005, CEEX , „Cercetari avansate privind structura nucleului atomic – CASN”  | Participant | 2005-2008                            |
| 9  | CTR.50/07.10.2005, CEEX, „Tranzitii de faza, stari nucleare de prag și reactii de interes pentru astrofizica – TFSRA”   | Participant | 2005-2008                            |
| 10 | CTR. 78/05.10.2005, Program CEEX, „Materiale avansate nanocompozite cu proprietati antibacteriene, de autocuratare și structuri integrate de concentratoare de energie solara utilizate în construcții civile pentru ameliorare ambientală” – NANOAMBIENT   | Participant | 2005-2008                            |
| 11 | CTR. 71/12.10.2005, Program CEEX, „Studii avansate asupra interacțiilor atomice folosind fascicule de ioni accelerați și neutroni - INTAFIN”  | Participant | 2005-2008                            |
| 12 | Program CEEX 109/05.10.2005 „Cercetari integrate pentru realizarea celulelor solare de mare eficienta bazate pe efecte cuantice utilizand nanotehnologii și procese tehnologice neconventionale - HESS – CELL”  | Participant | 2005-2008                            |
| 13 | CEEX nr. 718/2006<br><i>Retea de excelenta pentru controlul calitatii mediului și reducerea impactului unor factori poluanti din zona centrala și de sud a Romaniei – EXMED ,</i>   | Participant | 2006-2008                            |
| 14 | CTR. 06-11-04/25.07.2006, CEEX, ”Microstructura sistemelor micro și naometrice de a -Al <sub>2</sub> O <sub>3</sub> - ZrO <sub>2</sub> dopate cu pamanturi rare pentru compozite performante ( electrolit solid în celule de combustie de temperaturi intermediare - SOFC-IT ) – NANODOPAZ”   | Participant | 2006-2008                            |
| 15 | CTR. M3-C3-12350, CEEX, „Pregatirea pentru constituirea unei rețele nationale de cercetare de excelenta în domeniul celulelor fotovoltaice și pentru formarea de parteneriate europene-NANO-SOL-NET”  | Participant | 2006-2008                            |
| 16 | Program CEEX-M3-C3 “Micro și nanotehnologii în industria lemnului-o prima abordare romaneasca - MINAFOR-RO”   | Participant | 2006-2008                            |
| 17 | CEEX 2006 5907/18.09.2006 – 2008 CO - UVT<br>Utilizarea metodelor spectroscopice a bioindicatorilor vegetali în monitorizarea poluarii cu metale grele a mediului   | Participant | 2006-2008                            |
| 18 | PNCDI2: 31_081/14.09.2007<br><i>Bazele fizico-chimice ale tehnologiilor de fitominerit în medii geologice și tehnologice contaminate – FITOMIN</i>  | Participant | 2007-2010                            |
| 19 | CTR.17/12.09.2007,PNCDI II<br>”Sistem de microsenzori piezoelectrice, de masurare, analiza și control multiparametru, integrat 3D” – PIEZOSENZ  | Participant | 2007-2010                            |
| 20 | Grant și proiect în colaborare cu IUCN-Dubna, nr.6 și 5 /2008-2009, <i>Investigation of foodstuffs, environment and nanomaterials by nuclear and related analytical techniques</i> , tema nr: 03-4-1036-2001/2010, protocol nr: 3869-4-08/10  | Participant | 2008-2009                            |
| 21 | PNCDI 2: 72-172/2008<br><i>Tehnici de înalta precizie și sensibilitate aplicate în rețele de biomonitorizare a poluarii mediului cu factori poluanti din zonele de dezvoltare de sud, sud-est și centrala ale Romaniei – TIPSARMER</i>  | Participant | 2008-2011                            |
| 22 | PNCDI 2: 191/19.08.2008<br><i>Celule fotovoltaice cu eficienta crescuta obtinute prin folosirea tehnologiilor de microsisteme- MICROSYSCCELL</i>  | Participant | 2008-2011                            |
| 23 | PNCDI 2 : <i>Microsisteme integrate de monitorizare în timp real a parametrilor de foraj pentru optimizarea exploatarii resurselor petroliere (MICROSYSOIL)</i>   | Participant | 2005-2008                            |
| 24 | CTR. 51-052: PNCDI 2: <i>Cercetarea și realizarea de sisteme / microsisteme mecatronice / micromecatronice HIGH- TECH ultraprecise, integrate în platforme tehnologice pentru modernizarea și calificarea europeană a industriei</i>  | Participant | 2008-2011                            |
| 25 | CTR. 113/01.08.2006, Program CEEX-M3, “Promovarea rețelei nationale de mecatronica în vederea participarii la Programul Cadru 7 și integrarea acesteia în European Research Area”   | Participant | 2006-2007                            |
| 26 | CTR. 85/18.10.2004, PNCDI-MATNANTECH, “Tehnologii de realizare a micromatricilor semiconductoare cu emisie de lumina alba pentru aplicatii în sisteme de iluminat interior -MATRIX-LA”  | Participant | 2004-2007                            |
| 27 | Grant în colaborare cu IUCN-Dubna, “Nuclear and related analytical techniques for Environmental and Life Sciences”, tema nr: No 03-4-1036-2001/2010, protocol nr: 3869-4-08/10  | Participant | 2009-2010                            |
| 28 | Proiect în colaborare cu IUCN-Dubna, „Neutron Nuclear Physics – Fundamental and Applied Research”, No 03-4-1036-2001/2010, protocol nr. 3869-4-08/10  | Participant | 2009-2010                            |
| 29 | Proiect POSDRU 8867, “Dezvoltarea performanțelor de cercetare aplicativă pentru personalul din învățământul superior în domeniul protecției mediului și al siguranței alimentare”.  | Participant | 2010-2011                            |

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|----|---|------------------------------|------------------|
| 30 | Proiect în colaborare cu IUCN-Dubna, „ <i>Neutron Nuclear Physics – Fundamental and Applied Research</i> ”, No 03-4-1104-2011/2013, protocol nr. 3869-4-08/10   | Participant                  | 2011-2013        |
| 31 | Grant în colaborare cu IUCN-Dubna, “ <i>Nuclear and related analytical techniques for Environmental and Life Sciences</i> ”, tema nr: No 03-4-1104-2011/2013, protocol nr: 3869-4-08/10   | Participant                  | 2011-2013        |
| 32 | Proiect în colaborare cu IUCN-Dubna, „ <i>Neutron Nuclear Physics – Fundamental and Applied Research</i> ”, No 04-4-1104-2011/2013, protocol nr. 3869-4-08/10   | Participant                  | 2011-2013        |
| 33 | Proiect POSDRU/ 60720/2010 „Dezvoltarea și implementarea unui sistem de monitorizare, îmbunătățire continuă și evaluare a calității în învățământul superior deschis și la distanță pe baza indicatorilor de performanță și standardelor internaționale de calitate”  | Participant                  | 2010-2013        |
| 34 | <b>Proiect în colaborare cu IUCN-Dubna „Investigations in the Field of Nuclear Physics with Neutrons”, Topic No. 03-4-1104-2011/2016, Protocol No. 4319-4-14/16, Nuclear and related analytical techniques for Environmental and Life Sciences: sewage sludge analysis</b>  | <b>Coordonator principal</b> | <b>2014-2015</b> |
| 35 | <b>Proiect în colaborare cu IUCN-Dubna „Nuclear and related techniques for environmental and life sciences: sewage sludge analysis”, Topic No. 03-4-1104-2011/2013, Protocol No. 4319-4-14/16, Study of radiation absorption in polymer composites with natural local materials</b>   | <b>Coordonator principal</b> | <b>2016</b>      |
| 36 | Grant în colaborare cu IUCN-Dubna „ <i>Nuclear and related techniques for environmental and life sciences</i> ”, No 03-4-1104-2011/2016, Protocol No. 4323-4-14/16  | Participant                  | 2011-2016        |
| 37 | Proiect 262/01.07.2014, Nr. PN-II-PT-PCCA-2013-4-0792, „Izolații polimerice de înaltă performanță pentru mașini electrice rotative. Tehnologie și metode de modelare (IsMach)”  | Participant                  | 2014-2017        |
| 38 | <b>Proiect POS-CCE O221 / ID 916 / SMIS 14687 ” Dezvoltare CDI - Institut de Cercetare Științifică și Tehnologică Multidisciplinară”</b>  | <b>Responsabil tehnic</b>    | 2010-2015        |
| 39 | Proiect în colaborare cu IUCN-Dubna, „ <i>Nuclear and related techniques in the environmental studies</i> ” Topic No. 03-4-1128-2017/2019, Protocol No. 4616-4-17/19  | Participant                  | 2017-2019        |
| 40 | Proiect în colaborare cu IUCN-Dubna, Topic No 03-4-1128-2017/2019, Protocol No. 4618-4-17/19 - Nuclear and related techniques in the environmental studies; Protocol No. 4620-4-17/19 - Nuclear and related techniques for environmental and life sciences: sewage sludge analysis, title: “ <i>Studies and experiments concerning characterization and superior utilization of sludge from municipal wastewater treatment plants</i> ” | <b>Coordonator principal</b> | 2017-2019        |
| 41 | Proiect în colaborare cu IUCN-Dubna, Topic No. 03-4-1128-2017/2019, Protocol No.4616-4-17/19 - Nuclear and related techniques in the environmental studies, title: „ <i>The influence of different types of fertilizers/pesticides on fruit trees, apples and plumps</i> ”  | Participant                  | 2017-2019        |
| 42 | <b>Proiect în colaborare cu IUCN-Dubna, Topic No. 04-4-1122-2015/2020, Protocol No. 18/20 – Development of Experimental Facilities for Condensed Matter Investigations with Beams of the IBR-2; title: „Facility Evaluation of the material degradation and radiation hardness of new composite materials”</b>  | <b>Coordonator principal</b> | 2020             |
| 43 | <b>Proiect în colaborare cu IUCN-Dubna, Topic No. 04-4-1122-2015/2020, Protocol No. 18/20 – Development of Experimental Facilities for Condensed Matter Investigations with Beams of the IBR-2; title: Investigation of the aging of magnetic sensors with thin Ni-Cu films”,</b>   | <b>Coordonator principal</b> | 2021             |
| 44 | Proiect Horizon Europe topic HORIZON-CL5-2022-D4-01-02; GA numărul 101103450; cu titlul: „ <i>Renewable ENergy-based Positive Homes</i> ” acronim: „ <i>RENplusHOMES</i> ”; Director proiect Universitatea Valahia din Târgoviște: CS.III.Dr.Ing. DORIN-DACIAN LEȚ  | Participant                  | 2022-2024        |

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[1] V.Cimpoca, **I.Bancuta**, Ileana Cernica, Maria Cimpoca, *Termoelectric microgenerators with nanometric films*, Book of Abstracts Mecatronica, 12 nov. Targoviște, Romania, **2004**

[2] V. Cimpoca, **I. Bancuta**, Anca Gheboianu, Gh. Brezeanu, Ileana Cernica, Maria Cimpoca, I. Grozescu, *Nano-scale thermoelectric materials for direct thermal-to-electric energy conversion*; Book of abstracts Workshop NANOMAT, 24-25 martie, IFT Iași, Romania, **2005**

[3] V. Cimpoca, **I.Bancuta**, Gh. Brezeanu, Ileana Cernica, Maria Cimpoca, M. Petre; *Physics and Modeling of Thermoelectric Microgenerators*; Al VI-lea Workshop Balcanic International de Fizica Aplicata, Constanta 5-7 iulie; Romania, **2005**

[4] V. Cimpoca, **I. Bancuta**, Gh. Brezeanu, Ileana Cernica, Maria Cimpoca, *Types of Geometrical Structures of Nanogenerators Thermoelectric*, A VI-a Ediție a Conferinței Naționale de Surse Noi și Regenerabile de Energie “CNSNRE 2005”, Book of abstracts, Targoviste 27-28 Octombrie **2005**

[5] V. Cimpoca, **I. Bancuta**, Ileana Cernica, Maria Cimpoca, Gh. Brezeanu; *Tehnologii de realizare microgeneratoare termoelectrice cu filme nanometrice*; Al 6-lea Simpozion Național MTNANTECH, Constanta-

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[6] V. Cimpoca, **I. Bancuta**, Gh. Brezeanu, Ileana Cernica, Maria Cimpoca, I. Grozescu, *Various Materials and Geometry for Modeling Thermoelectric Microgenerators*; Conferinta Nationala de Fizica, Bucuresti, 13-17 septembrie 2005, Book of abstracts Vol. 2 pp. 37-38

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[8] Anca Gheboianu, Claudia Stih, I.V. Popescu, T. Badica, M.M. Gugiu, **I. Bancuta**, Air quality study by PIXE method and mosses as bioindicators, Abstracts, Conferinta Nationala de Fizica, Bucuresti 13-17 septembrie **2005**, vol 1, p. 151, Editura PRINTECH, ISBN : 973-718—304-5.

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[10] **I. Bancuta**, V. Cimpoca, Gh. Brezeanu, I. Cernica, M. Cimpoca, A. Gheboianu, *New materials for conversion of heat to electricity*, Fourth International Student Conference of the Balkan Physical Union, ISCBPU-4, Abstracts, August 26-September 2, Bodrum, Turkey, **2006**.

[11] **I. Bancuta**, V. Cimpoca, GH. Brezeanu, Ileana Cernica, Maria Cimpoca; *New Materials for Conversion of Heat to Electricity or Vice Versa*, Al VII-lea Workshop Balcanic International de Fizica Aplicata, Constanta 5-7 iulie **2006**; Romania

[12] Gh.V. Cimpoca, **I. Bancuta**, Gh. Brezeanu, Ileana Cernica, Maria Cimpoca, I. Grozescu, *Thermoelectric microgenerators with nanometric films*, Proceedings of Al 5-lea Seminar National de "Nano", Academia Română, 2 februarie **2006**.

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[14] C. Stih, I.V. Popescu, A. Gheboianu, **I. Bancuta**, A. Pantelica, Gh. Vlaicu, *Application of Particle Induced X-ray Emission analysis to vegetables samples*, Proceeding of 1st International Conference: Environment- Natural Sciences-Food Industry, 16-17 November, Baia Mare, Romania, p.228-231, ISBN:978-973-1729-39-8, **2007**

[15] S. Apostol, C. Apostol, **I. Bancuta**, A. Gheboianu, C. Stih, I.V. Popescu, V. Cimpoca, *Non-invasive optical methods as fast diagnostic tools for screening heavy metal toxicity in plants*, The 8<sup>th</sup> International Balkan Workshop on Applied Physics, Book of Abstract, Constanta, 5-7 July **2007**, p 173

[16] C. Stih, I. V. Popescu, V. Cimpoca, **I. Bancuta**, O. Bute, A. Gheboianu, G. Busuioc, T. BADICA, *Heavy metal content of vegetable leaves and soil determined by PIXE and ICP methods*, The 8<sup>th</sup> International Balkan Workshop on Applied Physics, Book of Abstract, Constanta, 5-7 July, p 193, **2007**.

[17] **I. Bancuta**; V. Cimpoca; M. Cimpoca, M. Stefan; A. Gheboianu; C. Stih and G. Brezeanu; *The evolution of thermoelectric generators from bulk materials to nanomaterials*, The 8<sup>th</sup> International Balkan Workshop on Applied Physics, Book of Abstract, Constanta 5-7 iulie **2007**; Romania, p 205

[18] A. Gheboianu, I. V. Popescu, C. Stih, M. Frontasyeva, O. Culicov, G. Busuioc, V. Cimpoca, **I. BANCUTA**, *Air pollution monitoring using INAA technique and mosses as bioindicators*, The 8<sup>th</sup> International Balkan Workshop on Applied Physics, Book of Abstract, Constanta, 5-7 July **2007**, p 191.

[19] **I. Bancuta**, V. Cimpoca, I. V. Popescu, A. Gheboianu, M. Cimpoca, C. Stih, M. Stefan, Gh. Brezeanu, *Performance of a thermoelectric generator using the polycrystalline silicon material*, Book of abstracts of the 9<sup>th</sup> International Balkan Workshop on Applied Physics, July 7-9, Constanta, Romania, pp 179, **2008**

[20] A. Gheboianu, I.V. Popescu, C. Stih, M. Belc, **I. Bancuta**, Gh. Vlaicu, M. Frontasyeva, O. Culicov, *Atomic absorption spectrometry and neutron activation analysis methods applied in environmental studies using mosses as bioindicators*, Book of abstracts of the 9<sup>th</sup> International Balkan Workshop on Applied Physics, July 7-9, Constanta, Romania, pp 132, **2008**

[21] I. V. Popescu, C. Stih, T. Badica, Gh.V. Cimpoca, G. Dima, A. Ene, A. Gheboianu, **I. Bancuta**, *Proton induced X ray excitation (PIXE) and atomic absorption spectrometry (AAS) applied in the environmental samples analysis*, Book of abstracts, The 15<sup>th</sup> National Conference on Physics, Bucharest, 10-13 september **2008**.

[22] C. Stih, I.V. Popescu, Gh. V. Cimpoca, G. Dima, A. Gheboianu, **I. Bancuta**, *Environmental samples analysis by atomic absorption spectrometry (AAS) and inductively coupled plasma-optical emission spectroscopy (ICP-OES)*, Book of abstracts, The 15<sup>th</sup> National Conference on Physics, Bucharest, 10-13 september **2008**.

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[25] G. State, M. Voicu, **I. Bancuta**, *Orientable photovoltaic panel*, Balkan Physical Union 2<sup>nd</sup> International

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[26] A. Gheboianu, I. V. Popescu, C. Stih, Gh. Valerica Cimpoca, **I.Bancuta**, Gh. Vlaicu, M. Petre, I. Dulama, M. Bahrim, *Waters quality studied by AAS and TDS measurements*, The 10<sup>th</sup> International Balkan Workshop on Applied Physics, Constanta July **2009**, p.143-144

[27] **I.Bancuta**, Gh. V. Cimpoca, I. V. Popescu, I. Dulama, Gh. Vlaicu, O.Bute and Gh. Brezeanu, *Elemental analysis by PIXE and EDXRF of materials used in thermoelectrical microgenerators*, 10<sup>th</sup> International Balkan Workshop on Applied Physics, July 6-8, **2009**, Constanta, Romania

[28] **I.Bancuta**, Gh. V. Cimpoca, I. V. Popescu, A. Gheboianu, M. Stefan, Oana Dulama and Gheorghe Brezeanu, *Study of thin films and nanostructured materials for thermoelectric microgenerators*, The 10<sup>th</sup> International Balkan Workshop on Applied Physics, Constanta July **2009**, p.185

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[31] Gh.V.Cimpoca, C.Radulescu, I.V.Popescu, I.D.Dulama, **I.Bancuta**, A.I.Gheboianu, M.Cimpoca, I.Cernica, L.Staicu, *QCM real-time sensor for monitoring of poisonous cyanide from drinking water and environmental*, The 7<sup>th</sup> General Conference of the BPU, Alexandroupolis 9-13 september **2009**, Book of abstracts p.107

[32] Gh. Vlaicu, **I.Bancuta**, Gh. V. Cimpoca, I. Dulama, G. Anca, M. Bahrim and I. V. Popescu, *Ionic nitriding process application on 12% Cr steels for tools and cold deformation devices manufacturing*, The 10<sup>th</sup> International Balkan Workshop on Applied Physics, Constanta July **2009**, p.197

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