ERNEST ARUȘANOV, acad., prof. univ.

1. Guc, M.; Lähderanta, E.; Hajdeu-Chicarosh, E.; Levcenko, S.; Shakhov, M.A.; Zakharchuk, I.; **Arushanov, E.;** Lisunov, K.G., Mechanisms of charge transfer and electronic properties of Cu_2ZnGeS_4 from investigations of the high-field magnetotransport. Sci Rep.(2017) 7, 10685. Doi: 10.1038/s41598-017-10883-0.
2. Guc, M.; Levcenko, S.; Zalamai, V.; **Arushanov, E.;** Syrbu, N.N. Raman scattering in right angle configuration on $Cu_2ZnSiSe_4$ single crystals. Opt Mater. (2017) 73, 119—123. Doi: 10.1016/j.optmat.2017.08.001.
3. Guc, M.; Lähderanta, E.; Shakhov, M.A.; Hajdeu-Chicarosh, E.; **Arushanov, E.;** Lisunov, K.G. Magnetotransport of Cu_2ZnSnS_4 single crystals in two regimes of variable–range hopping conduction. Surf Eng Appl Elect. (2017) 53(2)**,** 186—195. Doi: 10.3103/S1068375517020053.
4. Hajdeu-Chicarosh, E.; Guc, M.; Neldner, K.; Gurieva, G.; Schorr, S.; **Arushanov, E.;** Lisunov, K.G. Mechanisms of conductivity and energy spectrum of near-edge holes in Cu_2ZnSnS_4 powder samples. J Alloy Compd.(2017) 703**,** 315—320. Doi: 10.1016/j.jallcom.2017.01.352.
5. Dermenji, L.; Curmei, N.; Guc, M.; Gurieva, G.; Rusu, M.; Fedorov, V.; Bruc, L.; Sherban, D.; Schorr, S.; Simashkevich, A.; **Arushanov, E.**, Effects of Annealing on Elemental Composition and Quality of CZTSSe Thin Films Obtained by Spray Pyrolysis. Surf Eng Appl Elect. (2016) 52(6)**,** 509—514. Doi:10.3103/S1068375516060041.
6. M. Guc, A. P. Litvinchuk, S. Levcenko, M. Ya. Valakh, I. V. Bodnar, V. M. Dzhagan, V. Izquierdo-Roca, **E. Arushanov**, and A. Pérez-Rodríguez, Optical phonons in the kesterite Cu2ZnGeS4 semiconductor: polarized Raman spectroscopy and first-principle calculations, RSC Advances (2016) DOI: 10.1039/C5RA26844C.
7. M. Guc, S. Levcenko, I.V. Bodnar, V. Izquierdo-Roca, X. Fontane, L.V. Volkova , **E. Arushanov**, A. Pérez-Rodríguez , Polarized Raman scattering study of kesterite type Cu2ZnSnS4 single crystals, Scientific Reports(2016)DOI: 10.1038/srep19414.
8. C. P. Weber,**Ernest Arushanov**, Bryan S. Berggren,TaherehHosseini, Nikolai Kouklin, and AlexNateprov, Transient reflectance of photoexcited electrons in Cd3As2,Appl. Phys. Lett. 106, 231904 (2015).
9. W. Desrat, C. Consejo, F. Teppe, S. Contreras, M.Marcinkiewicz, W. Knap, A. Nateprov, **E. Arushanov**, Non-trivial Berry phase in the Cd3As2 3D Diracsemimetal,Journal of Physics: Conference Series 647 (2015) 012064 doi:10.1088/1742-6596/647/1/012064.
10. **E. Arushanov**, G. Fuchs, S. Levcenko, and S.-L. Drechsler, On possible scaling of the normal state in plane resistivity and aspects of the pseudo-gap problem in Ba(Fe1-xCox)As2, Moldavian Journal of the Physical Sciences Vol. 14, No 1-2, 2015.
11. G. Gurieva, S. Levcenko, V. Ch. Kravtsov, A. Nateprov, E. Irran, Y.S. Huang, **E. Arushanov,**S.Schorr, X-ray diffraction investigation on Cu2ZnSiSe4 single and polycrystallinecrystals, ZeitschriftfuerKristallographie- Crystalline Materials. ISSN (Online) 2196-7105, ISSN (Print) 2194-4946, DOI: 10.1515/zkri-2014-1825, June 2015.
12. **E. Arushanov**, and K. G. Lisunov, Transport properties of β-FeSi2, Jap. J. Appl. Physics 54, 07JA02/1-13 (2015)
13. N.N. Syrbu, V. Zalamai, M. Guc, S. Levcenko, A. Dorogan, **E. Arushanov**, Birefringence of Cu2ZnSiSe4 single crystals, J. Alloys Compounds 635 (2015) 188–193.
14. S. Levcenko, R Caballero, L. Dermenji, E.V. Telesh, I.A. Victorov, J. M. Merino, **E. Arushanov**, M. Leon, I. Bodnar, Preparation and optical characterization of the Cu2ZnGeSe4 thin films, Optic. Mater.40, 76-80 (2015).
15. S. Levcenko, A. Nateprov, V.Kravtsov, M.Guc, A. Pérez-Rodríguez,V.Izquierdo-Roca, X.Fontané,**E. Arushanov**, Structural study and Raman scattering analysisof Cu2ZnSiTe4 bulk crystals, Optics Express22, A1936-1943 (2014).
16. M. Guc, S. Levcenko, L. Dermenji, G. Gurieva, S. Schorr, N. N. Syrbu, **E. Arushanov**, Excitonic and band-band transitions of Cu2ZnSiS4 determined from reflectivity spectra, Sol. St. Commun. 190, 44-48 (2014).

17. M. León, S. Levcenko, R. Serna, I. V. Bodnar, A. Nateprov, M. Guc, G. Gurieva, N. Lopez, J. M. Merino, R. Caballero, S. Schorr , A. Perez-Rodriguez, **E. Arushanov**, Spectroscopic ellipsometry study of $Cu_2ZnSnSe_4$ bulk crystals, Appl. Phys. Lett. 105, 061909 (2014).
18. M. Guc, A. P. Litvinchuk, S. Levcenko, V. Izquierdo-Roca, X. Fontané, M. Ya. Valakh, **E. Arushanov**, and A. Pérez-Rodríguez, Optical phonons in wurtzstannite Cu_2ZnGeS_4 semiconductor: polarized Raman spectroscopy and first principle calculations, Phys. Rev. B 89 (2014) 205205/7.
19. M. Guc, S. Levcenko, L. Dermenji, G. Gurieva, S. Schorr, N.N. Syrbu, **E. Arushanov,**Exciton spectra and energy band structure of Cu2ZnSiSe4. Journal of Alloys and Compounds 587,393-397 (2014)
20. M. Guc, K.G. Lisunov, b, E. Hajdeu, S. Levcenko, V. Ursaki, E. Arushanov, Variable-range hopping conductivity in Cu2ZnGeSe4 single crystals. Solar Energy Materials and Solar Cells**127,** 87–91 (2014).
21. M. Guc, R Caballero, K. G. Lisunov, N. López, **E. Arushanov**, J. M. Merino, M. León, Disorder and variable-range hopping conductivity in Cu2ZnSnS4 thin films prepared by flash evaporation and post-thermal treatment, J. Alloys Compounds596, 140-144 (2014).
22. G. Gurieva, S. Levcenko, S. Schorr, M. León, R. Serna, A. Nateprov, **E. Arushanov** Characterization of CuSnSe3 by spectroscopic ellipsometry, Thin Solid Films 535 (2013) 384–386.
23. M. Guc, S. Levcenko, V. Izquierdo-Roca, X. Fontane, **E. Arushanov** and A. Pérez Rodríguez, Polarized Raman scattering analysis of $Cu_2ZnSnSe_4$ and $Cu_2ZnGeSe_4$ single crystals, J. Appl. Phys. **114**, 193514/9 (2013).
24. M. Guc, S. Levcenko, V. Izquierdo-Roca, X. Fontane, M. Ya. Valakh, **E. Arushanov** and A. Pérez Rodríguez, Polarized Raman scattering analysis of Cu_2ZnSiS_4 and $Cu_2ZnSiSe_4$ single crystals, J. Appl. Phys. 114,173507/9 (2013).
25. K. G. Lisunov, M. Guc, S. Levcenko, D. Dumcenco, Y. S. Huang, G.Gurieva, S. Schorr and **E. Arushanov**, Energy spectrum of near-edge holes and conduction mechanisms in Cu2ZnSiSe4 single crystals, J. Alloys Compounds 580, 481-486, (2013),DOI information: 10.1016/j.jallcom.2013.06.156
26. M. León, S. Levcenko, R. Serna, A. Nateprov, G. Gurieva, J. M. Merino, S. Schorr and **E. Arushanov**, Spectroscopic ellipsometry study of $Cu_2ZnGeSe_4$ and $Cu_2ZnSiSe_4$crystals, Materials Chemistry and Physics141, 58-62 (2013).
27. K G Lisunov, M Guk, A Nateprov, S Levcenko, V Tezlevan and **E Arushanov,** Features of the acceptor band and properties of localized carriers from studies of the variable-range hopping conduction in p-Cu_2ZnSnS_4, Sol. Energy Mat. Sol. Cells**112**, 127 - 133(2013).
28. S. Levcenco, M. Guc, C. Merschjann, G. Gurieva, S. Schorr, M. Lux-Steiner and **E. Arushanov**, Photoluminescence spectra of Cu2ZnGeS4 single crystals, Phys. Stat. Sol. C **10**, No. 7–8, 1079–1081 (2013) / DOI 10.1002/pssc.201200843
29. M. Guc, V. Izquierdo-Roca, A. Pérez Rodríguez, G. Gurieva, S. Levcenco, S. Schorr and **E. Arushanov**, Raman spectra of wurtzstannite quaternary compounds. Phys. Stat. Sol. C 2013, vol. 10, p. 1075-1078.
30. G. Gurieva, M. Guc, L. I. Bruk, V. Izquierdo-Roca, A. PérezRodríguez, S. Schorrand **E. Arushanov**, Cu2ZnSnS4 thinfilmsgrownbysprаypyrolysis: characterizationbyRamanspectroscopyandX-raydiffraction, Phys. Stat. Sol. C 10 (2013) 1082-1085.
31. **E. Arushanov**, S. Levcenko, G. Fuchs, and S.-L. Drechsler, Scaling of the temperature dependent resistivity in 111 iron-pnictide superconductors, J Supercond Nov Magn.26,(2013) 2727-2734;DOI 10.1007/s10948-012-2052-9

BERZAN Vladimir, dr. hab., conf. cerc.

Monografii

1. ANDRONATI, N.R.; SPIVAK, V.M.; MLADENOV, GH.M.; BERZAN, V.P.; BOGDAN, A.V.; COLEVA ,E.GH.; TÎRŞU, M.S.; GOLOVANOV, N. **Noţiuni generale despre micro- şi nanoelectronica modernă**. – Ch.: Tipografia Academiei de Ştiinţe a Moldovei, 2013. – 340 c. ISBN 978-9975-62-357-5.

Manuale/ dicţionare/ lucrări didactice (naţionale)

1. BERZAN V. *Electrofizica şi energetic*a. Universitatea Academiei de Ştiinţe a Moldovei; IE AŞM. – Chişinău, 2014. – 262p. ISBN 978-99-75-62.

Capitole în culegeri internaționale

1. БЫКОВА, Е.В.; БЕРЗАН, В.П.; ПОСТОЛАТИЙ ,В.М. О*сновные проблемы энергетики Молдовы и возможная роль ВИЭ в их решении.* Глава "Республика Молдова " в книге «*Проблемы энергетики и нетрадиционные источники энергии*», Выпуск 7. М.: МНЦТИ, 2014 с.75-88.

Articole din alte reviste editate în străinătate

1. BERZAN, V., OLESCHUK V. AND SIZOV, A. *Six-Phase Multi-Converter Drive with Specialized Schemes of Space-Vector PWM.* THE 4TH INTERNATIONAL SYMPOSIUM ON ELECTRICAL AND ELECTRONICS ENGINEERING, 11-13 October, 2013, Galaţi, Romania. http://www.aciee.ugal.ro/ISEEE/2013
2. BERZAN, VLADIMIR, PATSYUK, VLADIMIR AND RIBAKOVA, GALINA**.** *Numerical Modelling of Wave Processes in Electric Lines with Variable Parameters.* THE 4TH INTERNATIONAL SYMPOSIUM ON ELECTRICAL AND ELECTRONICS ENGINEERING, 11-13 October, 2013, Galaţi, Romania. http://www.aciee.ugal.ro/ISEEE/2013
3. BICOVA, ELENA, BERZAN, VLADIMIR AND MORARU, LARISA. *The analysis of evolution indicators of the energy security in electricity and heat sector of the Republic of Moldova* . THE 4TH INTERNATIONAL SYMPOSIUM ON ELECTRICAL AND ELECTRONICS ENGINEERING, 11-13 October, 2013, Galaţi, Romania. http://www.aciee.ugal.ro/ISEEE/2013
4. BERZAN, V.; PATSIUK, V.; RIBACOVA, G.; POSTOLACHE, P. Active power fluctuations in circuits with concentrated and distributed parameters under transient regime. *Reports of the 10th International Conference on Advances in Electro-Technologies. Journal of Electric and Electronics Engineering, 2014, 5p. ISSN 1844-6035*
5. BERZAN, V.; POSTORONCГ, S.; VIERU, D. *Расчет методом контурных токов режима сети с распределенными нагрузками типа RLC.* "Электротехнические и компьютерные системы", *Общая электротехника,* №22 (98), 2016. –pp.101-105. ISSN 2221-3805, ISSN 2221-3807 (Ucraina).

Articole din reviste naţionale:

Categoria B

1. ПАЦЮК, В.И.; БЕРЗАН, В.П.; АНИСИМОВ, В.К.; КАБАК, С.С.; ПОСТОРОНКА С.А. *Максимальные установившиеся значения тока и напряжения в однородной линии переменного тока*. Problemele energeticii regionale. 2013, 2(22), с.51-63. ISSN 1857-0070.
2. ПАЦЮК, В.И.; БЕРЗАН, В.П.; АНИСИМОВ, В.К.; КАБАК, С.С.; ПОСТОРОНКА С.А. *О некоторых особенностях режима передачи активной мощности по электрической линии переменного тока.* Problemele energeticii regionale. 2013, 3(23), ISSN 1857-0070.
3. BERZAN, V., RIMSCHI, V., PATSIUK, V., TÎRSU, M. Puterea reactivă în liniile electrice. *Problemele Energeticii Regionale.* 2014, 26(3), 63-70. ISSN 1857-0070.
4. BÎCOVA, E., BERZAN, V., MORARU, L. Estimări privind impactul unor măsuri de economisire a combustibilului asupra securităţii energetice a Republicii Moldova. *Problemele Energeticii Regionale.* 2014, 26(3), 63-70. ISSN 1857-0070.

5. БЕРЗАН, В.П.Расчет цепи трехфазного тока при произвольном числе подключенных нагрузок. *Problemele Energeticii Regionale*. 2014, 26(2), 30-37. ISSN 1857-0070.
6. BERZAN, V.; ERMURACHI, Iu. Convertor pentru utilizarea în instalaţii energetice de tip semi-punte cu modulaţia duratei impulsului şi comutaţia la tensiune şi curent zero**.** ***Problemele Energeticii Regionale***. Institutul de Energetică al Academiei de Ştiinţe, Chişinau, Republica Moldova. 2015, 28(2), 21-28. ISSN 1857-0070.
7. BERZAN, V., POSTORONCĂ, SV., VIERU, D., TINTIUC, IU. O tratare generalizată a procedurii de calcul a regimului permanent şi tranzitoriu a reţelei de distribuţie. ***Problemele Energeticii Regionale***. Institutul de Energetică al Academiei de Ştiinţe, Chişinau, Republica Moldova. 2015, 29(3), 25-32. ISSN 1857-0070.
8. BÎCOVA, E.; BERZAN, V.; GRODEŢCHII, M. Estimări privind impactul unor măsuri de economisire a combustibilului asupra securităţii energetice a Republicii Moldova. «Academoc», №1, 2015, p.92-101. ISSN1857-0461. http://www.akademos.asm.md/files/Tendintele functionarii sistemului energetic.pdf
9. PAŢIUC, V.; BERZAN, V.; RÎBACOVA, G.; ANISIMOV, V. Calcularea câmpului electric şi a parametrilor liniei de tip LEDA 110 kV cu metoda volumelor finite. ***Problemele Energeticii Regionale***. Institutul de Energetică al Academiei de Ştiinţe, Chişinau, Republica Moldova. 2015, 29(3), 32-40. ISSN 1857-0070.
10. POSTOLATI, V.; BÎCOVA, E.; BERZAN, V.; BOŞNEAGA, V.; SUSLOV, V.; RADILOV, T. Posibile regimuri de funcţionare în comun a sistemelor electroenergetice ale Moldovei, Ucrainei şi României**.** ***Problemele Energeticii Regionale***. Institutul de Energetică al Academiei de Ştiinţe, Chişinau, Republica Moldova. 2015, 28(2), 1-6. ISSN 1857-0070.
11. ERMURACHI, Iu.; BERZAN, V. Convertor pentru instalaюii cu caracter intermitent de producere a energiei electrice. *Problemele Energeticii regionale.* 2016, **30**(1), 14-24. ISSN 1857-0070

Articole din alte reviste naţionale

1. Bîcova, E.; Berzan, V.; Kirillova, T.; Moraru, L.; Postoroncă Sv. Prognoza balanţei energetice a Republicii Moldova pe termen scurt (2015-2016). *Analele Institutului de Energetică al Academiei de Ştiinţe a Moldovei*. 91-169. ISSN 1857-3924.

Articole în culegeri (internaţionale)

1. V.Postolati, V.Berzan. *Particularitɛţi ale regimului sistemului electroenergetic al Republicii Moldova la realizarea interconexiunii cu Romɛnia.* EMERG 4. Energie , Mediu; Eficienţr; Resurse; Globalizare. Serie nour. An II, 2016. Publicaţie semestrialr. Bucureşti: Editura AGIR, 2016 p.103-120. ISSN 2457-5011. *опубликована* (опубликована в феврале 2017 года)

Articole în culegeri (naţionale)

Rapoarte publicate (la congrese, conferinţe, simpozioane, în culegeri internaţionale)

1. BERZAN, V., PATSIUK, V., POSTOLACHE, P. *Fluctuaţii ale puterii active în regim tranzitoriu în circuitele cu parametri concentraţi şi distribuiţi.* Conferinţa CIEM 2013, UPB, Bucureşti
2. BERZAN, V.; PATIUC, V.; RIBACOVA G. *Finite Volume Method for Electrostatic Problems: in electrical equipment.* Conferinţa Internaţională SIELMEN 2013, 17-19 octombrie 2013, Chişinău, Secţia Electromagnetic Field and Electrical Circuits (FEC).
3. BERZAN VLADIMIR; TIRSU MIHAI; ILIESCU PAVEL.Calculation of Electric Circuit rules of Sources and Distributed Loads. *ICHQP 2014. 16th International Conference on Harmonics and Quality of Power (ICHQP). Bucharest, Romania, 25-28 May 2014. SESSION 6C - Renewable Generation/Distributed Generation and Power Quality.* IEEE (Journal, Magazine, Conference, Book). ICHQP_187. 978-1-4673-6487-4/14/$31.00 ©2014 IEEE (ediţie inclusă în baza de date SCOPUS)
4. BERZAN VLADIMIR; PATIUC VLADIMIR; RIBACOVA GALINA. Active and Reactive Powers of the Long Line. *ICHQP 2014. 16th International Conference on Harmonics and Quality of Power (ICHQP). Bucharest, Romania, 25-28 May 2014. Poster sesion 2.* IEEE

(Journal, Magazine, Conference, Book). ICHQP2014_101. 978-1-4673-6487-4/14/$31.00 ©2014 IEEE (ediţie inclusă în baza de date SCOPUS)

5. BERZAN,V.; PATSIUK,V.; TÎRŞU, M. Reactive Power in Power Lines. FOREN 2014 - *The 12th WEC Central & Eastern Europe Regional Energy Forum. Key ISSUE 2. DISPATCHING OF POWER SYSTEM. THE MANAGEMENT OF INTERCONNECTED SYSTEMS.* Bucureşti, 21-26 iunie 2014.
6. BYKOVA ELENA; POSTOLATY VITALIE; CHINIK MARIA; GRODECKY MIHAIL; KIRILLOVA TATIANA; BERZAN VLADIMIR. Methodological approaches to the analysis of the integral energy security. *Proceeding of the International Conference on Industrial Power Engineering (CIEI 2014).* The 9-th Edition. Bacău, 21 mai 2014. p.41-44. ISSN 2069-9905
7. ERMURACHI, IURIE; BERZAN, VLADIMIR. Power converter with high value of power factor. *Proceeding of the International Conference on Industrial Power Engineering (CIEI 2014).* The 9-th Edition. Bacău, 21 mai 2014. p.84-89. ISSN 2069-9905
8. OLESCHUK VALENTIN; ERMURATSKII VLADIMIR; BERZAN VLADIMIR. Elimination of Subharmonics in Spectra of Output Voltage of Drive Inverters with Space-Vector PWM. *Proc. of the 16th IEEE International Conference on Harmonics and Quality of Power (ICHQP'2014, Bucharest, Romania),* pp. 365-369, 2014. ISBN: 978-1-4673-6487-4/14 (ediţie inclusă în baza de date SCOPUS)
9. OLESCHUK V.; ERMURATSKII V. BERZAN V. Split-Phase Multi-Inverter System Controlled by Specialized Scheme of Synchronous PWM. *Proc. of the IEEE International Conf. on Applied and Theoretical Electricity (ICATE'2014, Craiova, Romania),* 5 p., 2014. ISBN: 978-1-4799-4162-9 (ediţie inclusă în baza de date SCOPUS)
10. OLESCHUK V.; ERMURATSKII V. BERZAN V. Multilevel Converters and Drives with Space-Vector Modulation and Voltage Waveform Symmetries. *Proc. of the IEEE International Conf. on Applied and Theoretical Electricity (ICATE'2014, Craiova, Romania),* 6 p., 2014. ISBN: 978-1-4799-4162-9 (ediţie inclusă în baza de date SCOPUS)
11. TIRSU, M. S.; ZAITEV, D. A.; CALININ, L. P.; V.BERZAN, UZUN, M. N.; SPIVAK, V.M.; SHELIAGIN, V. Technical solution for realisation of arc welding devices with low influence on power grid. . *Proceeding of the International Conference on Industrial Power Engineering (CIEI 2014).* The 9-th Edition. Bacău, 21 mai 2014. p.244-249. ISSN 2069-9905
12. СКЛЯР, П. А.; МЕЛЬНИК, Ю. В.; БЕРЗАН. В. П. Разработка и расчет комплексных биотепловых установок для фермерских хозяйств. *Сборник трудов ГОСНИТИ*, Москва, 2014.- 5р.
13. БЫКОВА, Е., БЕРЗАН, В., ГРОДЕЦКИЙ, М. Анализ структуры ТЭБ и подходы к построению краткосрочных прогнозов по потреблению топлив. Сборник трудов 8 международной конференции «Энергетика: управление, качество и эффективность использования энергоресурсов», Благовещенск, 27-29 мая 2015 г. С. 326-329. ISBN 978-5-93493-240-5.
14. BERZAN, V.; POSTOLATI, V.; BOCOVA, E. *Unele aspecte ale problemei asigurării cu energie a Republicii Moldova* : materialele Conf. şt. cu participare intern. „Energetica Moldovei 2016. Aspecte regionale de dezvoltare", Chişinău, 29 septembrie – 02 octombrie 2016. Ch. : Tipogr. „Logosprint", 2016. 639 p. ISBN 978-9975-4123-5-3
15. BERZAN, V. ERMURACHI, IU. POSTORONCĂ, S. *Power Supply Technology for Consumers by Smart Connection to the Medium Voltage Network* : WEC Central & Eastern Europe Regional Energy Forum 13th Edition – FOREN 2016. „Safe and Sustainable Energy for the Region". 12-16 iuie. Costineşti, România
16. BERZAN,V.; ERMURACHI, IU.; POSTORONCA, S.; COCIU R. *Micro-Inverter for Photovoltaic Modules*. 2016 International Conference and Exposition on Electrical and Power Engineer, 6p.
17. BERZAN, V. PAIOIUC, V.; ROBACOVA, G.; SAVIN, I. *Electromagnetic Field Calculation for 110 KV Power Line* : WEC Central & Eastern Europe Regional Energy Forum 13th Edition

– FOREN 2016. „Safe and Sustainable Energy for the Region”. 12-16 iuie. Costineєti, Romвnia

18. BERZAN, V.; ERMURACHI Iu.; POSTORONCΓ , S. *Power supply electric energy sources with high frequency converter* : International Conference Celebrating 55 Years of Higher Education and 40 Years of technical Higher Education into”, Bacau , 2-4 iunie 2016, Vasile Alecsandri” University, 6p.
19. BERZAN, V.; POSTOLATI, V.; BABICI, V. *Analiza comparativг a funcюionгrii cet-urilor cu capacitatea diferitг de generare a energiei termice єi energiei electrice*: materialele Conf. єt. cu participare intern. „Energetica Moldovei 2016. Aspecte regionale de dezvoltare”, Chiєinru, 29 septembrie – 02 octombrie 2016. Ch. : Tipogr. „Logosprint”, 2016. 639 p. ISBN 978-9975-4123-5-3
20. BOCOVA, E.; BERZAN, V. *Abordгri metodice on realizarea balanюoelor energetice pe termen scurt*: materialele Conf. єt. cu participare intern. “Energetica Moldovei 2016. Aspecte regionale de dezvoltare”, Chiєinru, 29 septembrie – 02 octombrie 2016. Ch. : Tipogr. “Logosprint”, 2016. 639 p. ISBN 978-9975-4123-5-3
21. COLESNIC, I.; BERZAN, V.; ANISIMOV, V.; LOCЄIN, V. *Metoda electrochimicг pentru depistarea on armгturг produselor din betonul armat a locurilor, predispuse la coroziunea localг*: materialele Conf. єt. cu participare intern. “Energetica Moldovei 2016. Aspecte regionale de dezvoltare”, Chiєinru, 29 septembrie – 02 octombrie 2016. Ch. : Tipogr. “Logosprint”, 2016. 639 p. ISBN 978-9975-4123-5-3
22. CTITOR, R.; BERZAN, V. *Analiza impactului preюourilor la resursele energetice asupra unor indici macroeconomici*. Teze a 69-a Conferinţr ştiinţificr a studenţilor şi masteranzilor UASM, 23 martie 2016, Chişinru. Ch.: Editura UASM. –pp.88-90.ISBN 978-9975-64-281-1.
23. ERMURACHI, Iu.; BERZAN, V. *Soluюii inovative a convertoarelor electronice de putere pentru energeticг* : materialele Conf. єt. cu participare intern. “Energetica Moldovei 2016. Aspecte regionale de dezvoltare”, Chiєinru, 29 septembrie – 02 octombrie 2016. Ch. : Tipogr. “Logosprint”, 2016. 639 p. ISBN 978-9975-4123-5-3
24. POSTOLATI, V.; BERZAN, V. *Regimul de funcюionare al sistemului electroenergetice al Republicii Moldova la interconectarea cu Romвnia*: materialele Conf. єt. cu participare intern. “Energetica Moldovei 2016. Aspecte regionale de dezvoltare”, Chiєinru, 29 septembrie – 02 octombrie 2016. Ch. : Tipogr. “Logosprint”, 2016. 639 p. ISBN 978-9975-4123-5-3
25. TORЄU, M., BERZAN. V., ANISIMOV. V., POSTORONCΓ, S. *Metodг de stocare a energiei din surse regenerabile* : materialele Conf. єt. cu participare intern. „Energetica Moldovei 2016. Aspecte regionale de dezvoltare”, Chiєinru, 29 septembrie – 02 octombrie 2016. Ch. : Tipogr. “Logosprint”, 2016. 639 p. ISBN 978-9975-4123-5-3

Teze ale comunicărilor (la congrese, conferinţe, simpozioane, în culegeri internaţionale)

1. ALEXEEV, V.; MUNTEAN, AL.; BERZAN, V.; ANISIMOV, V.; BURCIU, V. Metodă de creare a microclimatului în încăperea pentru creşterea păsărilor. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 87. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
2. BERZAN, V.; OVSEANNICOVA, T.; ANISIMOV, V. Metantanc. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 53. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
3. BERZAN, V.; ANISIMOV, V. Metodă de obţinere a hidrogenului pentru mijloacele de transport prin utilizarea aluminiului. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 54. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
4. BERZAN, V.; ANISIMOV, V; BURCIU V. Turbină a motorului eolian cu ax de rotaţie vertical. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 64. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
5. BERZAN, V.; ANISIMOV, V.;ŢARANOVICI, C.; MIHALACHE, A.; CUROŞU, L. Metodă de alimentare cu energie electrică a blocurilor. *CATALOG OFICIAL. Expoziţia*

Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011. Ch.: AGEPI. 2011, 64. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf

6. BERZAN, V.; STAȘCOV, E.; ANISIMOV, V.; TÎRȘU, M. Metodă de conservare a energiei generate de instalaţia energetică eoliană. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 64-65. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
7. BERZAN, V.; ANISIMOV, V.; ANISIMOVA, R.; ZALÎMOV, AL.; IVANENCO, M. Instala!ie fundament transportabilă. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 86. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
8. BERZAN, V.; ANISIMOV, V. Metodă de utilizare a căldurii gazelor evacuate din instalaţia termică cu obţinerea combustibilului pentru aceasta. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 87. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
9. BÎCOVA, E.; POSTOLATI, V.; BERZAN, V.; ANISIMOV. V. Metode de asigurare a securităţii populaţiei. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 35. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
10. GHIMPU, V.; MOVILĂ, E.; RUDÎK, D.; DOMANSCHII, V.; BELEAEVA, N; BERZAN, V.; ANISIMOV, V. Acoperire electroconductivă. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 43. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
11. POSTOLATI, V.; BERZAN, V.; TÎRȘU, M.; ANISIMOV, V. Instalaţie pentru transportul energiei electrice. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 65. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
12. ROȘCA, D.; BERZAN, V.; ANISIMOV, V. Metodă de pregătire a amestecului de arbolit. *CATALOG OFICIAL. Expoziţia Internaţională Specializată INFOINVENT 2011, 22-265 noiembrie 2011*. Ch.: AGEPI. 2011, 87. http://www.infoinvent.md/pdf/infoinvent/catalog/Catalog_2011.pdf
13. BERZAN VLADIMIR, PATSYUK VLADIMIR AND RIBAKOVA GALINA**.** *Numerical Modelling of Wave Processes in Electric Lines with Variable Parameters.* Abstract paper nr. 56 of the 4th International Symposium on Electrical and Electronics Engineering, 11-13 October, 2013, Galaţi, Romania. p.27. http://www.aciee.ugal.ro/ISEEE/2013/ FinalProgramme ISEEE2013/Programme%20ISEEE%202013_9oct.pdf
14. BERZAN V., OLESCHUK V. AND SIZOV A. *Six-Phase Multi-Converter Drive with Specialized Schemes of Space-Vector PWM.* Abstract paper nr. 37 of the 4th International Symposium on Electrical and Electronics Engineering, 11-13 October, 2013, Galaţi, Romania. p.35. http://www.aciee.ugal.ro/ISEEE/2013/ FinalProgrammeISEEE2013/Programme%20 ISEEE%202013_9oct.pdf
15. BICOVA ELENA, BERZAN VLADIMIR AND MORARU LARISA. *The analysis of evolution indicators of the energy security in electricity and heat sector of the Republic of Moldova* . Abstract paper nr. 57 of the 4th International Symposium on Electrical and Electronics Engineering, 11-13 October, 2013, Galaţi, Romania. p.26. http://www.aciee.ugal.ro/ISEEE/2013/ FinalProgrammeISEEE2013/Programme%20ISEEE%202013_9oct.pdf
16. ЕРМУРАКИ, Ю.В.; БЕРЗАН, В.П.; ИВАШИН, Д. *Управление адаптером фотопреобразовательных модулей при их параллельной работе с электрической сетью-АСФОМС*. Тезисы докладов Международной научно-технической конференции «Автоматизация: проблемы, идеи, решения». Севастополь, 09-13 сентября 2013. – с.00
17. ERMURACHI, IURIE; BERZAN, V. *Instalaţie pentru reglarea tensiunii de curent alternativ. INFOINVENT 2013. Catalog Oficial. Expoziţia Internaţională Specializată 19-22 noiembrie,* p.72.

18. ERMURACHI, IURIE; BERZAN, V. *Instalaţie pentru convertizarea tensiunii alternative în tensiune de curent continuu. INFOINVENT 2013. Catalog Oficial. Expoziţia Internaţională Specializată 19-22 noiembrie,* p.72-73.
19. В. П. БЕРЗАН . **Алгоритм составления феноменологической модели функционирования теплоэлетроцентрали. Нетрадиційні і поновлювані джерела енергії як альтернативні первинним джерелам енергії в регіоні: Матеріали Дев'ятої міжнародної науково-практичної конференції (Львів, 6–7 квітня 2017р.): Зб. наук. статей. – Львів: НУ «Львівська політехніка» – 325с. Lviv:** ПП "Інтепрінт-М" , **сс.251-254**
20. Ю.В. ЕРМУРАКИ,В.П. БЕРЗАН, Н.Р. АНДРОНАТИ. ***Микроинвертор с автотрансформаторной связью в схемах с фотопреобразовательными модулями.*** **Нетрадиційні і поновлювані джерела енергії як альтернативні первинним джерелам енергії в регіоні**: Матеріали Дев'ятої міжнародної науково-практичної конференції (Львів, 6–7 квітня 2017р.): Зб. наук. статей. – Львів: НУ «Львівська політехніка» – 325с. Lviv: ПП "Інтепрінт-М" , сс. 274-277.
21. BERZAN V.P., ERMURACHI Iu.V. Single Phase Inverter with Hybrid Topology and Efficient Switching Principles. 7th International Conference on Modern Power Systems MPS 2017, Cluj-Napoca, Romania | 6-9 June 2017 (SCOPUS)
22. В.М. Постолатий, В.П. Берзан, Е.В. Быкова. Режимы энергосистемы молдовы при введении в работу вставки постоянного тока на подстанции вулканешть для связи с энергосистемой Румынии. Електротехнічні та комп'ютерні системи. 2017. № 00 (00) ISSN 2221-3805. Одесса, Украина . 10 стр. 23700 знаков.0,59 п.л.

Rapoarte publicate (la congrese, conferinţe, simpozioane, în culegeri naţionale)

1. POSTOLATI, V.M.; BERZAN, V.P.; BÎCOVA, E.V. Dezvoltarea interconexiunilor sistemului electroenergetic al Republicii Moldova. *Conferinţa Naţională „CERCETAREA ŞI INOVAREA ÎN PARTENERIAT CU MEDIUL DE AFACERI", Chişinău, 10 noiembrie 2011,* p.124-129
2. ОРЕШТЯН, О.В.; БЫКОВА, Е.В.; БЕРЗАН, В.П.; ПОСТАЛАТИЙ, В.М. Анализ изменения тарифов на электроэнергию в Республике Молдова. *Conferinţa Naţională „CERCETAREA ŞI INOVAREA ÎN PARTENERIAT CU MEDIUL DE AFACERI", Chişinău, 10 noiembrie 2011,* p.95-100
3. BERZAN Vladimir, ERMURACHI Iurie, ANDRONATI Nicolae. Convertor de curent alternativ în curent continuu. *Conferința Științifică Jubiliară a studenților și colaboratorilor UTM*, 20 octombrie, 2014, Chișinău. Secțiunea EIE-3. Electrotehnica, Electromecanica și Metrologie. 3p.
4. BERZAN V., BÎCOVA E., POSTOLATI V. Evaluarea gradului de securitate a sistemului energetic național. *Masa rotundă: Problemele dezvoltării sectorului energetic național pe termen mediu și lung. Conferința Științifică Jubiliară a studenților și colaboratorilor UTM*, 21 octombrie, 2014, Chișinău.
5. CUCOŞ Andrei, BERZAN Vladimir, CABAC Serghei. Element absorbant pentru colectoare solare termice. *Conferința Științifică Jubiliară a studenților și colaboratorilor UTM*, 20 octombrie, 2014, Chișinău. Secțiunea EIE-2. Termotehnica și Management în Energetică. 4p.
6. ERMURACHI Iurie, BERZAN Vladimir. Dispozitiv pentru reglarea tensiunii de curent alternativ. *Conferința Științifică Jubiliară a studenților și colaboratorilor UTM*, 20 octombrie, 2014, Chișinău. Secțiunea EIE-3. Electrotehnica, Electromecanica și Metrologie. 3p.
7. ERMURACHI Iu., BERZAN V., VIERU D., MORARU Larisa, ERMURACHI Iu.Iu. , CABAC S.. Convertor de curent continuu în curent continuu. *Conferința Științifică Jubiliară a studenților și colaboratorilor UTM*, 20 БЫКОВ, Е.; ТУРТУРИКА,А.; БЕРЗАН,В. Мониторинг основных индикаторов энергетической безопасности регионов Молдовы. *Conferința Științifică Jubiliară a studenților și colaboratorilor UTM*, 20 octombrie, 2014, Chișinău. Secțiunea EIE-3. Electrotehnica, Electromecanica și Metrologie.Octombrie, 2014, Chișinău. Secțiunea EIE-3. Electrotehnica, Electromecanica și Metrologie.4p.

8. SIT, Mihail; BERZAN, Vladimir; SIT, Boris; ANDRONATY, Nicolae. Heat pumps in energy production unites of meat-processing plants. *Conferința Științifică Jubiliară a studenților și colaboratorilor UTM*, 20 octombrie, 2014, Chișinău. Secțiunea EIE-2. Termotehnica și Management în Energetică. 4p.

Teze ale comunicărilor (la congrese, conferinţe, simpozioane, în culegeri naţionale)

1. OLESCHUK V.; ERMURATSKII V. BERZAN V. Split-Phase Multi-Inverter System Controlled by Specialized Scheme of Synchronous PWM. *Abstract Proceedings of the IEEE International Conf. on Applied and Theoretical Electricity (ICATE'2014, Craiova, Romania),* p. 42, 2014.
2. OLESCHUK V.; ERMURATSKII V. BERZAN V. Multilevel Converters and Drives with Space-Vector Modulation and Voltage Waveform Symmetries. *Abstract Proceedings of the IEEE International Conf. on Applied and Theoretical Electricity (ICATE'2014, Craiova, Romania),* p. 45, 2014.
3. *ŞIT, M.L.; BERZAN, V.P.; ŞIT, B.M. Schemes of the Use of Heat Pumps in Energy Production Unites of Meat-Processing Plants. 2014, International Conference and Exposition on Electrical and Power Engineering (EPE)., October 16, 2014 – October 18, 2014; Iași, Romania. -pp.1-3.*
4. ВИЕРУ, ДУМИТРУ; БЕРЗАН, ВЛАДИМИР. Расчет стационарного режима радиальной сети с распределенными нагрузками и источниками генерации. Belorusia, Minsk. *Conference „Integrating science and technology for a sustainable and secure future: energy, environment, informatics and human health. SSF-2014", 18-21 septembrie 2014.Minsk*/ Alexander von Humboldt Foundation/Humboldt Kolleg// Book of abstracts.-P.43-46. ISBN 978-985-6456-92-6
5. ЕРМУРАКИ, Ю.В.; ЕРМУРАКИ, Ю.Ю.; ВИЕРУ, Д. Моделирование работы инвертора PV модулей при их параллельной работе с электрической сетью. Belorusia, Minsk. *Conference „Integrating science and technology for a sustainable and secure future: energy, environment, informatics and human health. SSF-2014", 18-21 septembrie 2014.Minsk*/ Alexander von Humboldt Foundation/Humboldt Kolleg// Book of abstracts.-P.46-48. ISBN 978-985-6456-92-6
6. КТИТОР, РОМАН; КУКОШ, АНДРЕЙ; БЕРЗАН, ВЛАДИМИР; КАБАК, СЕРГЕЙ. Тепловоспринимающий элемент солнечного коллектора. Belorusia, Minsk. *Conference „Integrating science and technology for a sustainable and secure future: energy, environment, informatics and human health. SSF-2014*", 18-21 septembrie 2014.Minsk/ Alexander von Humboldt Foundation/Humboldt Kolleg// Book of abstracts.-P.52-55. ISBN 978-985-6456-92-6
7. ТЫРШУ, М.С.; БЕРЗАН, В.П.; ПИЛИНСКИЙ, В.В.; СПИВАК, В.М.; ШЕЛЯГИН, В.Д. Забезпечення електромагнітної сумісності електродугового зварювального обладнання з електричною мережею. *Міжнародна науково – технічна конференція. «Підвищення рівня ефективності енергоспоживання в електротехнічних пристроях і системах»*. Луцьк – Шацьке озера, 2014, с.202-204.

Lista brevetelor obţinute

1. BERZAN, V.; OVSEANNICIVA, T.; ANISIMOV, V. *Metantanc*. Brevet de invenţie. MD 4076. 2010-11-30
2. BERZAN, V.; ANISIMOV V.; ANISIMOV, K.; *Caracasă pentru seră:* Brevet de invenţie. MD 4074 . 2010-11-30.
3. BERZAN, V.; ANISIMOV V. *Dispozitiv de ghidare a vântului pentru motor eolian:* Brevet de invenţie. MD 4088. 2010-12-31.
4. BERZAN, V.; ANISIMOV V.; TARAN, N. *Procedeu de majorare a acidităţii active a vinului sec*. Brevet de invenţie. MD 4090. 2011-01-31.
5. BERZAN, V.; ANISIMOV, V.; ANISIMOV, R.; ZALÎMOV, A.; IVANENCO, M. *Instalaţie fundament transportabilă.* Brevet de invenţie. MD 4096. *2011-02-28.*
6. BERZAN, V.; ANISIMOV, V.; ANISIMOV, R.; ZALÎMOV, A.; IVANENCO, M. *Instalaţie fundament transportabilă pentru pantă.* Brevet de invenţie. MD 348. 2011-02-28.

7. BERZAN, V.; ANISIMOV , V.; BURCIU, V. *Turbină a motorului eolian cu ax de rotaţie vertical*. Brevet de invenţie. MD 362. 2011-04-30.
8. BERZAN, V.; BÎCOVA,E.; POSTOLATI,V.; ANISIMOV,V. *Colector solar cu reflectoare de lumină.* Brevet de invenţie. MD 378. 2011-05-31.
9. POIAN,C.; POSTOLATI,V.; BERZAN, V.; ANISIMOV,V. *Colector solar cu reflectoare de lumină.* Brevet de invenţie. MD 377. 2011-05-31.
10. TÎRŞU, M.; UZUN, M.; SPEIAN, A.; BERZAN, V.; ANISIMOV, V. *Sistem electric de iluminat*. Brevet de invenţie MD 576 Z 2013.07.31.
11. ERMURACHI, IURIE**;** BERZAN, VLADIMIR. *Dispozitiv pentru reglarea tensiunii alternative (variante)*. Brevet de invenţie de scurtă durată 727 Y, BOPI 1/14, p.35.
12. ERMURACHI, IURIE**;** BERZAN, VLADIMIR. *Instalaţie pentru convertizarea tensiunii alternative în tensiune de curent continuu (variante)*. Brevet de invenţie de scurtă durată 742 Y, BOPI 2/14, p.39.
13. ERMURACHI, Iurie; BERZAN, Vladimir; MORARU, Larisa; ERMURACHI, Iurie. Convertor de tensiune de curent continuu în tensiune de curent continuu. Brevet de invenţie MD 841 Z din 2015.06.30
14. ERMURACHI, Iurie; BERZAN, Vladimir; MORARU, Larisa. Microinvertor pentru panouri fotovoltaice. Brevet de invenţie MD 842 Z din 2015.06.30.
15. ERMURACHI, Iurie; BERZAN, Vladimir, MD; ERMURACHI, Iurie. Invertor pentru modul fotovoltaic. MD 944 Y din 2015.08.31.
16. BERZAN, Vladimir. Absorber pentru colectorul solar. Brevet de invenţie MD 908 Y.
17. BURCIU, Vitalie; BERZAN, Vladimir; ŞIT, Mihail; ANISIMOV, Vladimir; BURCIU, Andrei. Carcasă pentru seră. Brevet nr. 876, BOPI nr. 2/2015.
18. BURCIU, Vitalie; BERZAN, Vladimir; ŞIT, Mihail; ANISIMOV, Vladimir; BURCIU, Andrei. Carcasă pentru seră. Brevet nr. 877, BOPI nr. 2/2015.

PAVLINA BOUROȘ, dr., conf. cerc.

1. CRISAN, M.; BOUROSH, P.; CHUMAKOV, Yu.; PETRIC, M.; ILIA, Gh. Supramolecular Assembly and Ab Initio Quantum Chemical Calculations of 2-Hydroxyethylammonium Salts of para-Substituted Benzoic Acids. *Cryst Growth Des*. 2013, 13, 143—154. ISSN 1528-7483. doi 10.1021/cg301304y (IF: 4,689).
2. BOUROSH, P.N.; COROPCEANU, E.B.; CILOCI, A.A.; CLAPCO, S.F.; BOLOGA, O.A.; BIVOL, C.M.; TIURINA, J.P.; BULHAC, I. New Co(III) Dioximates with Hexafluorophosphate Ion as Stimulators of the Proteolytic Activity of the Micromycete *Fusarium gibbosum* CNMN FD 12. *Russ J Coord Chem*. 2013, 39(11), 777—786. ISSN 1070-3284. doi 10.1134/S107032841311002X (IF: 0,466).
3. RIJA, A.; COROPCEANU, E.; BOLOGA, O.; LOZAN, V.; LIPKOWSKI, J.; BULHAC, I.; BOUROSH, P. Synthesis and Structure of New Thiourea-Containing Cobalt(III) Dioximates with the $[TiF_6]^{2-}$ Anion. *Russ J Inorg Chem*. 2013, 58(4), 440—449. ISSN 0036-0236. doi 10.1134/S0036023613040153 (IF: 0,417).
4. CIOBANICA, O.; BOUROSH, P.; BOLOGA, O.; BULHAC, I.; LOZAN, V.; SHOFRANSKY, V. Synthesis and Crystal Structure of a New Fe(II) α-Dioximate with Triazine *Chem J Mold*. 2013, 8(1), 78—82. ISSN 1857-1727.
5. CROITOR, L.; COROPCEANU, E.B.; CHISCA, D.; BACA, S.G.; VAN LEUSEN, J.; KOGERLER, P.; BOUROSH, P.; KRAVTSOV, V.CH.; GRABCO, D.; PYRTSAC, C.; FONARI, M. S.. Effects of Anion and Bipyridyl Bridging Ligand Identity on the Co(II) Coordination Networks. *Crystal Growth & Design*, 2014, 14, pages 3015−3025, dx.doi.org/10.1021/cg500646r, Print Edition ISSN: 1528-7483, Web Edition ISSN: 1528-7505, IF= 4.689.
6. COCU, M.; BULHAC, I.; COROPCEANU, E.; MELNIC, E.; SHOVA, S.; CIOBANICA, O.; GUTIUM, V.; BOUROSH. P.. Synthesis and structure of new mononuclear octahedral cobalt(III) dioximates derived from isonicotinic hydrazide. *Journal of Molecular Structure*,

Vol. 1063, 2014, Pages 274–282. DOI: 10.1016/j.molstruc.2014.01.084, ISSN: 0022-2860, IF=1.453.

7. REVENCO, M.; BULMAGA, P.; JORA, E.; PALAMARCIUC, O.; KRAVTSOV, V.; BOUROSH, P.. Specificity of salicylaldehyde S-alkylisothiosemicarbazones coordination in palladium(II) complexes. Polyhedron, 2014, V. 80, 250-255, DOI: 10.1016/j.poly.2014.05.006 ISSN: 0277-5387, IF=1.946.
8. CRISAN, M.E.; BOUROSH, P.; MAFFEI, M.E.; FORNI, A.; PIERACCINI, S.; SIRONI, M.; CHUMAKOV, Yu.M.. Synthesis, Crystal Structure and Biological Activity of 2-Hydroxyethylammonium Salt of p-Aminobenzoic Acid. PLOS ONE. July 2014, Volume 9, Issue 7, e101892 (www.plosone.org). IF=3.534.
9. ALEXANDRESCU, L.; BOUROSH, P.; OPREA, O.; JITARU, I.. Synthesis and crystal structure of $La(NO_3)_3(H_2O)_2(bipy)]\cdot 1.5(bipy)$. *Journal of Structural Chemistry*. Vol. 55, No. 1, 2014 pp. 107-111. DOI. 10.1134/S002247661401017X, Print ISSN 0022-4766, Online ISSN 1573-8779, IF=0.501.
10. BOUROSH, P. N.; REVENKO, M. D.; STRATULAT, E. F.; WICHER, B.; GDANIEC, M.; KORZHA, I. D.. Synthesis and structure of new Copper(II) coordination compounds with 8-quinoline aldehyde semicarbazones and thiosemicarbazones. *Russian Journal of Inorganic Chemistry*, 2014, Vol. 59, No. 6, pp. 545–557. ISSN 0036-0236, DOI 10.1134/S0036023614060059, IF=0.545.
11. BOUROSH, P.; BOLOGA, O.; SHAFRANSKI, V.; MELNIC, E.; GDANEC, M.; BULHAC, I.. Cobalt(III) and Nickel(II) Complexes with 3-Hydroxyamino-3-Methylbutan-2-one Thiosemicarbazone: Synthesis and Structures. *Russian Journal of Coordination Chemistry, 2014, Vol. 40, No. 12, pp. 891–903.* DOI: 10.1134/S1070328414120033 *ISSN 1070-3284,* IF=0.629.
12. CIOBANICA, O.; BOUROSH, P.; BOLOGA, O.; BULHAC, I.; LOZAN, V.; SHOFRANSKY, V. Synthesis and Crystal Structure of a New Fe(II) α-Dioximate with Triazine *Chem J Mold*. 2013, 8(1), 78—82. ISSN 1857-1727.
13. VOMISESCU, C.; BOUROSH, P. ; KRAVTSOV, V. ; DRAGANCEA, D. Nickel(II) Complex Derived From 2-Hydroxy-3-Methoxybenzaldehyde Semicarbazone And 2,2'-Bipyridine, *Chemistry Journal of Moldova. General, Industrial and Ecological Chemistry*. 2013, 8(2), pages 78-82.
14. VALUTA, A.; CEPOI, L.; RUDI, L.; BULHAC, I.; BOUROSH, P.; BOLOGA, O. Phycobiliprotein accumulation in cyanobacterium *Nostoc linckia* and modification of antioxidant activity. Analele Universității din Oradea, Fascicula Biologie. 2015, T. XXII, N 1, p. 13-19.
15. COROPCEANU, E.; RIJA, A.; LOZAN, V.; BULHAC, I.; DUCA, Gh.; KRAVTSOV, V.Ch.; BOUROSH, P. Discrete Binuclear Co(III) bis-Dioximates with Wheel-and-axle Topology as Building Blocks to Afford Porous Supramolecular Metal-organic Frameworks. *Cryst Growth Des*. 2016, 16(2), 814-820. ISSN 1528-7483. doi 10.1021/acs.cgd.5b01402 (IF: 4,425).
16. BOUROSH, P.; BULHAC, I.; MIRZAC, A.; SHOVA, S.; DANILESCU, O. Mono- and Dinuclear Vanadium Complexes with the Pentadentate Schiff Base 2,6-Diacetylpyridine Bis(nicotinylhydrazone): Synthesis and Structures. *Russ J Coord Chem*. 2016, 42(3), 157—165. ISSN 1070-3284. doi 10.1134/S1070328416030015 (IF: 0,516).
17. COROPCEANU, E.; BOLOGA, O.; ARSENE, I.; VITIU, A.; BULHAC, I.; GORINCHIOY, N.; BOUROSH, P. Synthesis and characterization of inner-sphere substitution products in azide-containing cobalt(III) dioximates. *Russ J Coord Chem*. 2016, 42(8), 516—538. ISSN 1070-3284. doi 10.1134/S1070328416070046 (IF: 0,516).
18. BULHAC, I.; DESEATNIC-CILOCI, A.; BOUROSH, P.; TIURINA, J.; BOLOGA, O.; BIVOL, C.; CLAPCO, S.; VEREJAN, A.; LABLIUC, S.; DANILESCU, O. Structure and some biological properties of Fe(III) complexes with nitrogen-containing ligands. *Chem J Mold*. 2016, 11(1), 39—49. ISSN 1857-1727.

19. BULHAC, I.; DESEATNIC-CILOCI, A.; CUBA, L.; BIBOL, C.; DANILESCU, O.; DVORNINA, E.; BOUROȘ, P. Compuși coordinativi ai fierului (III) cu activitate biologică. În: *Modern tehnologies in the food industry - 2016, Proceedings of the International Conference (2016; Chișinău), ed. Bostan Viorel et al., Chișinău, 2016, - 465 p*. International Conference ”Modern tehnologies in the food industry - 2016”, 20-22 October, 2016, Chișinău, Republica Moldova , p. 348-355. ISBN: 978-9975-87-138-9 .2016
20. SÎRBU, A.; SECU, M.; BOUROŞ, P.; PALAMARCIUC, O. Sinteza şi structura compuşilor coordinativi ai cuprului(II) cu tiosemicarbazona aldehidei 5-(metilentrimetilamoniu)salicilice. *STUDIA UNIVERSITATIS MOLDAVIAE*, 2016, nr.6(96). *Seria “Științe reale și ale naturii” ISSN 1814-3237 ISSN online 1857-498X p. 214-224.*
21. BULHAC, I.; DANILESCU, O.; RIJA, A.; SHOVA, S.; KRAVTSOV, V. Ch.; BOUROSH, P. N.. Cobalt(II) Complexes with Pentadentate Schiff Bases 2,6-Diacetylpyridine Hydrazones: Syntheses and Structures. *Russian Journal of Coordination Chemistry*, 2017, Vol. 43, No. 1, pp. 21–36. DOI: 10.1134/S1070328417010018. И. Булхак, О. Данилеску, А. Рижа, С. Шова, 2, В. Х. Кравцов, П. Н. Боурош. СИНТЕЗ И КРИСТАЛЛИЧЕСКАЯ СТРУКТУРА КОМПЛЕКСОВ Co(II) С ПЕНТАДЕНТАТНЫМИ ШИФФОВЫМИ ОСНОВАНИЯМИ 2,6-ДИАЦЕТИЛПИРИДИНГИДРАЗОНОВ. Координационная химии. 2017, 43(1), 23–38. (IF 0.541)
22. COROPCEANU, E. B.; BULHAC, I.; SHTEFYRTSE, A. A.; BOTNAR’, V. F.; MELENCHUK, M.; KULIGIN, E.; BOUROSH, P. N. Synthesis, Crystal Structure, and Biological Properties of the Complex $[Co(DmgH)_2(Seu)_{1.4}(Se\text{-}Seu)_{0.5}(Se_2)_{0.1}][BF4]$. *Russian Journal of Coordination Chemistry*, 2017, Vol. 43, No. 3, pp. 164–171. DOI: 10.1134/S1070328417030046. Э. Б. Коропчану, И. Булхак, А. А. Штефырцэ, В. Ф. Ботнарь, М. Меленчук, Е. Кулигин, П. Н. Боурош. СИНТЕЗ, КРИСТАЛЛИЧЕСКАЯ СТРУКТУРА И БИОЛОГИЧЕСКИЕ СВОЙСТВА КОМПЛЕКСА $[Co(DmgH)_2(Seu)_{1.4}(Se\text{-}Seu)_{0.5}(Se_2)_{0.1}][BF4]$. КООРДИНАЦИОННАЯ ХИМИЯ, 2017, том 43, № 3, с. 156–163. (IF 0.541).
23. VITIU, A.A.; COROPCEANU, E. B.; BOUROSH, P. N. Crystal structure of Co(III) α-dimethylglyoximates with imidazole. Journal of Structural Chemistry. Vol. 58, No. 3, pp. 526-531, 2017. Doi 10.1134/S0022476617030131 *ISSN 0136-7463 (Print). ISSN 2542-0976 (Online)* А.А. Витиу, Э.Б. Коропчану, П.Н. Боурош СИНТЕЗ И КРИСТАЛЛИЧЕСКАЯ СТРУКТУРА α-ДИМЕТИЛГЛИОКСИМАТОВ Co(III) С ИМИДАЗОЛОМ. Журнал структурной химиию 2017. Т. 58. №3. С. 571-576. (IF 0.472).
24. BOUROSH, P.; BOLOGA, O.; DESEATNIC-CILOCI, A.; TIURINA*C*, J.; BULHAC, I. Synthesis, Structure, and Biological Properties of Mixed Cobalt(III) Dioximates with Guanidine Derivatives *ISSN 1070-3284, Russian Journal of Coordination Chemistry, 2017, Vol. 43, No. 9, pp. 591–599.* DOI: 10.1134/S1070328417090019. P. Bourosh, O. Bologa, A. Deseatnic-Ciloci, J. Tiurina, and I. Bulhac. СИНТЕЗ И СТРОЕНИЕ СМЕШАННЫХ ДИОКСИМАТОВ КОБАЛЬТА(III) С ПРОИЗВОДНЫМИ ГУАНИДИНА И ИХ БИОЛОГИЧЕСКИЕ СВОЙСТВА (IF 0.541).
25. VITIU, A.A.; COROPCEANU, E. B.; BOUROSH, P. N.. Synthesis and Structure of New Zn(II) and Co(II) Coordination Polymers with 1,3,5-Benzenetricarboxylic Acid. Russian Journal of Coordination Chemistry, 2017, Vol. 43, No. 11, pp. 745–752. DOI: 10.1134/S1070328417110100. А.А. Витиу, Э.Б. Коропчану, П.Н. Боурош СИНТЕЗ И СТРОЕНИЕ НОВЫХ КООРДИНАЦИОННЫХ ПОЛИМЕРОВ Zn(II) И Co(II) С 1,3,5-БЕНЗОЛТРИКАРБОНОВОЙ КИСЛОТОЙ КООРДИНАЦИОННАЯ ХИМИЯ, 2017, том 43, № 11, с. 676–683. (IF 0.541).

Brevete de invenţie

1. O. Ciobanica, V. Rudic, I. Bulhac, L. Cepoi, L. Rudi, P.Bouroş, V. Miscu, T. Chiriac, D. Sadovnic. Bis{bis(dimetilglioximato)cloro}-μ-3-formilpiridinisonicotinoilhidrazona-di-cobalt(III) şi procedeu de cultivare a microalgei Porphyridium cruentum cu utilizarea acestuia. Brevet de invenţie 4278. Data publicării hotărârii de acordare a brevetului 2014.03.31, BOPI nr. 3/2014.

2. A. Ştefîrţă, V. Botnari, I. Bulhac, L. Brânză, A. Chilinciuc, E. Coropceanu, P. Bouroş. Procedeu de cultivare a usturoiului. Brevet de invenție Nr 1087. Data publicării hotărârii de acordare a brevetului 2016.11.30, BOPI nr. 11/2016.

MIHAIL CHIORSAC, dr. hab., prof. univ.

1. M.Chiorsac, L.Turcuman, V.Sidelnicov „Scheme complexe echivalente pentru calculul defectelor complicate în LEA hexafazate prin metoda componentelor simetrice" Conferinţa internaţională „Energetica Moldovei-2012, p.286-288
2. Kiorsak M., Iazlovetski M. ,Iazlovetski L., Turcuman L., Ababii M.The Influence Of The Third Harmonic Of Supply On The Losses In Steel Of Transformer. 9th International Conference and Exhibition on Electromechanical and Power Systems SIELMEN, Chişinău, UTM, 2013, pp.385-387, c.a.0,3
3.M. Chiorsac, T.Ambros, L.Turcuman „Flexible alternating current transmission line with series capacitive compensation and phase shifting transformer as line of intersystem connections". SINGRO-2014. Chisinau, 23octombrie 2014
4.М. Киорсак, В. Бурченко. Transferul de putere dintre fazele apropiate bifurcate a sistemului trifazat de alimentare cu energie electrica.Conferința profesorilor,doctoranzilor și studenților UTM, Chișinău, noiembrie 2013,pp.45-49
5. M.Chiorsac, A.Potang, G.Tertea. Analiza circuitelor liniare în regim tranzitoriu ce admit schimbarea bruscă a curentului prin inductivitate şi a tensiunii aplicate la condensator. Materialele conferenței int SIELMEN 2013 ,Cishănău, 17-18 octombrie 2013, cc.400-402
6. M.Chiorsac, A.Potang, conf. Sidelnicov L. Turcuman. Filtrele componentelor simetrice hexafazate 1,2,4,5. Conferința profesorilor,doctoranzilor și studenților UTM, Chișinău, 20 octombrie 2014, pp.442-446
7.A.Potang,. M.Chiorsac, G.Tertea. Aplicarea metodei variabilelor de stare la analiza circuitelor electrice liniare în regim tranzitoriu. Conferința profesorilor,doctoranzilor și studenților UTM, Chișinău, 20 octombrie 2014, pp. 451-455
8. Chiorsac M., Turcuman L., Turturica N. „Principiul de elaborare a protecţiei prin relee a liniilor electrice aeriene cu autocompensare la scurtcircuite nesimetrice dintre fazele apropiate" Sursa electronica „Problemele energeticii regionale" Nr.3 (29) 2015 ELECTROENERGETICĂ. Pag.63-66
9. Зайцев Д.А, Киорсак М.В.Калошин Д.Н.Анализ нормальных режимов молдавской энергосистемы при различных концепциях развития. Доклады итоговой научной конференции ППС инженерно-технического института за 2014 год , г.Тирасполь, 16-24 января 2015 г. с.10-12
10. T.Ambros, M.Chiorsac. Operation of the syncronous generators with permanent magnets in parallel to the power grid. Proceedings of the 10th International Conference on Electromechanical and power Systems, ISBN 978-606-567-284-0, SIELMEN-2015, Craiova-Iasi, October 8-9 2015, Chisinau, RepublicMoldova, October 8-9 2015, pp.275-277
11. M. Kiorsak, M.Ababii. Theoretical bases of the electrical engineering. Computer-assisted laboratory guide. UTM, 2015, 40 c.
12. Chiorsac M., Turcuman L., Turturica N. „Calculul mărimilor electrice pentru protecţia prin relee a liniilor electrice multifazate". Conferinţa internaţională "Energetica Moldovei 2016", 29-30 septembrie 2016, Chişinău, pag.226-231.
13. Chiorsac M., Turcuman L., Burcenco V. „Modelarea la calculator a scurtcircuitelor nesimetrice şi a ruperilor de fază în liniile electrice hexafazate" Conferinta studenţilor, doctoranzilor UTM, Chişinău ,2016
14. A.Potang,. M.Chiorsac, G.Tertea.Electrotehnica generală. Problemar. UTM, 2016, 9.75 c.t.

NICOLAE ENACHI, dr. hab., prof. univ.

1. Enaki, N. Peculiarities of Two-Photon Holograms of Nonlinear Quantum Optics and Their Connections with Detection Possibilities. În: Horizons in World Physics. Volume 291. Ed. Albert

Reimer, Nova Science Publishers, Hauppauge NY, USA, 2017, 217—250 p. ISBN 978-1-53611-008-1.

2. Enaki, N.; Bazgan, S.; Ciobanu, N.; Turcan, M.; Paslari, T.; Ristoscu, C.; Vaseashta, A.; Mihailescu, I.N. Improvement in ultraviolet based decontamination rate using meta-materials. Appl Surf Sci. 2017, 417, 40—47. Doi: 10.1016/j.apsusc.2017.01.133 (IF: 3,15).

3. Enaki N.A. (2016) , Monograph „Non-Linear Cooperative Effects in Open Quantum Systems: Entanglement and Second Order Coherence", NOVA Sciences Publishing, NY, USA, 355 p.

4. Nicolae Enaki ; Sergiu Bazgan, Doppler effect in opposite propagating modes of cavity, *Proc. SPIE* 10010, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VIII, 100101X (December 14, 2016); doi:10.1117/12.2243328

5. Enaki N.A. "Cooperative entangled effects between the cavity mode components of Raman process " *Proc. SPIE* 10010, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VIII, 100100K (December 14, 2016); doi: 10.1117/12.2242982

6. Tatiana Pislari, Nicolae Enaki "Energy transfer of non-equidistant radiators via the nonlinear excitation mechanism inside of an optical cavity" , *Proc. SPIE* 10010, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VIII, 100100Q (December 14, 2016); doi: 10.1117/12.2243286

7. Enaki N.A. (2015), Cheptar 2 „Entanglement and Cooperative Effects between the Mode Components of Raman Process in Cavity and Their Analogy with Atomic Collective Effects", în Book „New Development in Quantum Optics Recesses" NOVA Sciences Publishing, NY, USA, 51 - 99. .

8. Enaki N.A. (2015), Chapter 4 "Two Non-Linear Mechanisms of Correlations Between Cooper Carriers in Superconductivity and their Microsopical Descriptions" in book "Recent Advances in Superconductivity Research", NOVA Sciences Publishing, NY, USA, 309 p.

9. Enaki N.A., Bazgan S. "Symmetry of packing of doped cavities and its influence on the emission spectrum of entangled state " Romanian, Reports in Physics, 67 (2015), 1322 (IF 1.5).

10. Turcan M. , Enaki N. "Cooperative generation of entangled states by Raman conversion of photons in nanofibers", 67 (2015), 1334 (IF1.5)

11. Paslari Tatiana, Enaki N. "Cooperative nonlinear transfer of information between three Q-bits through cavity vacuum field" Romanian, Reports in Physics, 67 (2015), 1341 (IF 1.5).

12. Enaki N, Rosca T, Phys. Script. , The nonlinear cooperative decay process of three-level systems stimulated by a thermal field and the generation of entangled photon pairsT160, 014011 (2014). DOI: 10.1088/0031-8949/2014/T160/014011

13. Nicolae Enaki and Marina Turcan, "Cooperative quantum correlations between Stokes and anti-Stokes modes in four-wave mixing" Phys. Scr. T153 (2013) 014021 (6pp) doi:10.1088/0031-8949/2013/T153/014021

14. N Ciobanu,, N A Enaki and M Orszag *"Quantum beats and localization of two atoms in the subwavelength regime,* 2013 J. Phys. B: At. Mol. Opt. Phys. 46 155501

15. Nicolae A Enaki " *Three-particle cooperative emission in single- and two-photon exchanges through the vacuum field*" Phys. Scr. T153 (2013) 014020 (7pp) doi:10.1088/0031-8949/2013/T153/014020

16. Nicolae A Enaki and Sergiu Bazgan "*Exact solution for energy transfer between radiators localized in separate coupled cavities*", Phys. Scr. T153 (2013) 014022 (6pp) doi:10.1088/0031-8949/2013/T153/014022

17. Nicolae A. ENAKI, Chapter 4. *Effective Hamiltonian and Master Equation for Nonlinear Collective Interaction of Electrons with Lattice Vibration in Superconductivity*; pp. 141-172 in the Hand Book „Magnetic Mechanism of Superconductivity in Copper Oxide" , *Nova Publishers*, 2011-2012.

18. Nicolae A. ENAKI, ID: _11005_Chapter *Title: "New Cooperative Effects in Single- and Two- Photon interactions of Radiators with Electromagnetic Bath"* in ID: _1830_ Book, Tite: Electromagnetic Fields: Principles, Engineering Applications and Biophysical Effects" , *Nova Publishers*,

19. N.A. Enaki" Mutual cooperative effects between single- and two-photon super-fluorescent processes through vacuum field" *Eur. Phys. J. D Volume 66*, Number 4, 21 p. (2012) DOI: http://dx.doi.org/10.1140/epjd/e2012-20563-1

20. Enaki N.A." Mutual cooperative effects between single- and two-photon super-fluorescent processes through vacuum field" Nicolae A Enaki, *2012* J. Phys.: Conf. Ser. 338 012005 doi:10.1088/1742-65

21. Nicolae Enaki and Marina Turcan "Generation of photon pairs in hyper-Raman Effects and its connection with transitions symmetries", 2012 *J. Phys.: Conf. Ser.* 338 012007 doi:10.1088/1742-6596/338/1/012007,

22. Nicolae Enaki and Sergiu Colun, Nonlinear effects in the theory of superconductivity, 2012 *J. Phys.: Conf. Ser.* 338 012006 doi:10.1088/1742-6596/338/1/012006

23. ENAKI, N.A., TURCAN M., Cooperative Scattering Effect Between Stokes and Anti-Stokes Field Stimulated by a Stream of Atoms" Optics Communications , *Volume 285, Issue 5, 1 March 2012, Pages 686-692*

24. Nicolae A Enaki and Tudor Rosca "The exact quantum solution of *N*-radiators in cooperative interaction with a cavity field" 2012 *Phys. Scr.* 2012 014011 doi:10.1088/0031-8949/2012/T147/014011

25. N Ciobanu, N A Enaki and M Orszag "Cooperative emission from two atoms localized in a standing wave field ", 2012 *Phys. Scr.* 2012 014007 doi:10.1088/0031-8949/2012/T147/014007

VICTOR KRAVȚOV, dr., conf. cerc.

Nr.	Denumirea lucrării	Datele bibliografice	Coautorii
1.	Crystallographer Ion Andrei Diacon (1934-2012): Life Dedicated to Science	Moldavian Journal of the Physical Sciences, Vol. 11, N4, 2012, p.381-382	V. Ch. Kravtsov
2.	Иван Андреевич Дьякон. Жизнь, посвященная науке.	*Электронная обработка материалов.* 2013, т.49, № 1, с.106.	В.Х. Кравцов.
3.	Кристаллическая структура α'''-($Zn_{1-x}Cd_x)_3As_2$, x = 0.26. Crystal Structure of α'''-($Zn_{1-x}Cd_x)_3As_2$ (x = 0.26).	*Кристаллография*, 2013. Том 58, номер 4, с.561-566. *Crystallography Reports*, 2013, Vol. 58, No. 4, pp. 563–567.	Г. Ф. Володина, В. С. Захвалинский, В. Х. Кравцов. G. F. Volodina, V. S. Zakhvalinskii, V. Kh. Kravtsov.
4.	Single Crystal X-ray Structure Investigation of $Cu_2ZnSnSe_4$.	*Электронная обработка материалов*, 2013, 49(5), 70–73. *Surface Engineering and Applied Electrochemistry*, 2013, Vol. 49, No. 5, pp. 423–426.	A. Nateprov, V. Ch. Kravtsov, G. Gurieva, S. Schorr.
5.	Nickel(II) complex derived from 2-hydroxy-3-methoxybenzaldehyde semicarbazone and 2,2'-bipyridine	*Chemistry Journal of Moldova. General, Industrial and Ecological Chemistry*. 2013, 8(2), 78-82	Carolina Vomisescua, Paulina Bourosh, Victor Kravtsov, Diana Dragancea
6.	Preparation, structure and properties of pyridinium/bipyridinium hexafluorosilicates	*Journal of Fluorine Chemistry* 160 (2014) pp.57–63	V.O. Gelmboldt, Ed.V. Ganin, M.M. Botoshansky, V.Yu. Anisimov, O.V. Prodan, V.Ch. Kravtsov, M.S. Fonari
7.	Enantioselective hydrolysis of 3-hydroxy-1,4-benzodiazepin-2-oneesters by pig liver microsomes	*Journal of Molecular Catalysis B: Enzymatic* 102 (2014) 66–71	Ye.A. Shesterenko, I.I. Romanovska,, O.V. Sevastyanov, S.A. Andronati,V.I.

			Pavlovsky, T.A. Yurpalova, B. Wicher, V.Ch. Kravtsov, A.A. Krysko
8.	Halogen impact into new oxonium benzo-crown ether complexes with tetrachloro- and tetrabromoaurates(III)	*Dalton Trans.*, 2014, 43, 7087–7095	Sergei M. Pluzhnik-Gladyr, Victor Ch. Kravtsov, Marina S. Fonari, Gerbert L. Kamalov
9.	Cluster-based networks: assembly of a (4,4) layer and a rare T-shaped bilayer from $[Mn^{III}_2Mn^{II}_4O_2(RCOO)_{10}]$ coordination clusters.	*CrystEngComm***,** 2014, 16, 6523–6525.	Iurie L. Malaestean, Arkady Ellern, Jan van Leusen, Victor C. Kravtsov, Paul Kögerler, Svetlana G. Baca.
10.	Specificity of salicylaldehyde S-alkylisothiosemicarbazones coordination in palladium(II) complexes	*Polyhedron* 80 (2014) 250–255	M.Revenco, P. Bulmaga, E. Jora, O. Palamarciuc, V. Kravtsov, P. Bourosh
11.	Effects of Anion and Bipyridyl Bridging Ligand Identity on the Co(II) Coordination Networks.	*Cryst. Growth Des.* 2014, **14(6)**, 3015—3025.	L. Croitor, E.B.Coropceanu, D.Chisca, S.G. Baca, J.van Leusen, P. Kogerler, P. Bourosh, V.C. Kravtsov, D.Grabco, C. Pyrtsac, M.S. Fonari
12.	6,12-Диарилдибенз[1.5][b.f]диазоцин и 2-(2'-амино)фенилхинолины на основе 2-амино-5-бромбензофенона и 2-аминоацетофенона.	В кн. "Химия гетероциклических соединений. Современные аспекты". Том.1 / Под ред. В.Г. Карцева. М.:МБФНП, ICSPF. 2014,-624с. ISBN 978-5-903078-39-4. С. 96-100.	Больбот И.В., Кравцов В.Х., Павловский В.И., Андронати С.А.
13.	The Costruction of 1D, 2D and 3D Polymeric Coordination Compounds Using Transitional Metalls, a Semi-Rigid Bidentate Ligand and Pyridinedicarboxylic Acids.	XXXIII-rd Romanian Chemistry Conference. Romania, Călimăneşti-Căciulata, Vâlcea, Romania, 01-03 Octombrie, 2014. p. 30.	I. Voda, V. Druta, C. Indricean, V. Lozan, P.Bourosh, V. Kravtsov, C. Turta.
14.	Structural study and Raman scattering analysisof Cu2ZnSiTe4 bulk crystals.	*Optics Express*, Vol. 22, Issue S7, pp. A1936-A1943 (2014) http://dx.doi.org/10.1364/OE.22.0A1936**I**	S. Levcenko, A. Nateprov, V. Kravtsov, M. Guc, A. Pérez-Rodríguez, V. Izquierdo-Roca, Xavier Fontané, Ernest Arushanov.
15.	Robust Packing Patterns and Luminescence Quenching in Mononuclear $[Cu(II)(phen)_2]$ Sulfates	J. Phys. Chem. C 2014, 118, 30087−30100. dx.doi.org/10.1021/jp5085845	E. Melnic, Ed.B. Coropceanu, O.V. Kulikova, A.V. Siminel, D.Anderson, H.J. Rivera-Jacquez,

			A.E. Masunov, M. S. Fonari, V.Ch. Kravtsov
16.	Crystal structure of $\{[La_2(CNCH_2COO)_6(H_2O)_4]\cdot H_2O\}_n$ complex.	*Chemistry Journal of Moldova. General, Industrial and Ecological Chemistry*. 2015, 10(1), 52-56, ISSN(p)1857-1727; ISSN(e) 2345-1688.	Ana Lazarescu, Elena Melnic, Sergiu Shova, Victor Kravtsov, ConstantinTurta.
17.	X-ray diffraction investigation on $Cu_2ZnSiSe_4$ single and polycrystalline crystals	*Zeitschrift für Kristallographie - Crystalline Materials.* 2015, V.230, No.8, 507–511, ISSN (Online) 2196-7105, ISSN (Print) 2194-4946, DOI: 10.1515/zkri-2014-1825,	Galina Gurieva, Sergiu Levcenko, Victor Ch. Kravtsov, Alexander Nateprov, Elisabeth Irran, Ying-Sheng Huang, Ernest Arushanov, Susan Schorr.
18.	Synthesis and structure of homodrimane sesquiterpenoids containing 1,2,4-triazoleand carbazole rings.	*Chemistry of Natural Compounds*, 2015,Vol. 51, No. 4, 694-688.	K. I. Kuchkova, A. N. Arycu, E. S. Sekara, A. N. Barba,P. F. Vlad, F. Z. Makaev, E. Melnik, V. Kh. Kravtsov.
19.	Синтез и анальгетическая активность 3-ариламино-1,2-дигидро-3Н-1,4-бенздиазипин-2-онов.	*Химико-фармацевтический журнал*. Том.49. №9, 2015, 22-27.	В.И. Павловский, И.Ю.Ушаков, Т.А. Кабанова, Е.И. Халимова, В.Х. Кравцов, С.А. Андронати.
20.	Synthesis and analgesic activity of 3-arylamino- 1,2-dihydro-3H-1,4-benzodiazepin-2-ones.	*Pharmaceutical Chemistry Journal*, 2015.Vol. 49, No. 9, p. 592-597.(Russian Original Vol. 49, No. 9, 2015) ISSN: 0091-150X (Print) 1573-9031 (Online) DOI 10.1007/s11094-015-1335-4	V. I. Pavlovskii, I. Yu. Ushakov, T. A. Kabanova, E. I. Khalimova,V. Kh. Kravtsov, S. A. Andronati
21.	Excitonic Luminescence, X-ray Analysis and Local Band Structure of Chlorine Intercalated 2H- and 3R-MoS_2 Polytypes	3rd International Conference on Nanotechnologies and Biomedical Engineering. September 23-26, 2015, Chisinau, R.Moldova *IFMBE Proceedings* 55. 2016, ISBN: 978-981-287-735-2 (Print) 978-981-287-736-9 (Online). P. 192-195	S.Angel, Yu.Chumakov, V.Kravtsov, L..Kulyuk, C.Mamaliga, A.Mitiogly, K.Sushkevich, G.Volodina
22.	Discrete Binuclear Cobalt(III) Bis-dioximates with Wheel-and-Axle Topology as Building Blocks To Afford Porous Supramolecular Metal–Organic Frameworks.	Crystal Growth & Design, 2016, 16 (2), pp 814–820 ISSN: 1528-7483. DOI: 10.1021/acs.cgd.5b01402. (IF=4.891).	Ed. Coropceanu, A. Rija, V. Lozan, I. Bulhac, Gh. Duca, V.r Ch. Kravtsov, . P. Bourosh
23.	Synthesis, biological evaluation and molecular docking studies of 2-piperazin-1-yl-quinazolines as platelet aggregation inhibitors and	*Bioorganic & Medicinal Chemistry Letters* 26 (2016) 1839–1843. ISSN: 0960-894X. http://dx.doi.org/10.1016/j.bmcl.2016.02.011 (IF= 2.420)	A. A. Krysko, A. Yu. Kornylov, P. G. Polishchuk, G. V. Samoylenko, O. L. Krysko, T. A.

	ligands of integrin $\alpha_{IIb}\beta_3$.		Kabanova, V. Ch. Kravtsov, V.M. Kabanov, B. Wicher ,S.A. Andronati.
24.	On the occasion of the 80th birthday of Galina Fedorovna Volodina. Moldavian	*Journal of the Physical Sciences*, Vol. 14, N3-4, 2015, p.139-140.	V. Kravtsov and M. Fonari.
25.	Synthesis, Characterization, and Modeling of Magnetic Properties of a Hexanuclear Amino Alcohol-Supported $\{Co^{II}_2Co^{III}_2Dy^{III}_2\}$ Pivalate Cluster.	*J. Phys. Chem.* C 2016, 120, 7435−7443. DOI: 10.1021/acs.jpcc.6b01378. Print Edition ISSN: 1932-7447. Web Edition ISSN: 1932-7455 (IF=4.772)	Ioana Radu, Victor Ch. Kravtsov, Karl Krämer, Silvio Decurtins, Shi-Xia Liu, Oleg S. Reu,Serghei M. Ostrovsky, Sophia I. Klokishner, Svetlana G. Baca
26.	Site-selective luminescence spectroscopy of bound excitons and local band structure of chlorine intercalated 2H- and 3R-MoS2 polytypes.	*Journal of Luminescence* 177 (2016) 331–336. http://dx.doi.org/10.1016/j.jlumin.2016.05.017. ISSN: 0022-2313.	S. Anghel, Yu.Chumakov, V.Kravtsova, G.Volodina, A.Mitioglu , P.Płochocka K. Sushkevich, E.Mishina, L.Kulyuk
27.	Solvent-Controlled Assembly of Ionic Metal−Organic Frameworks Based on Indium and Tetracarboxylate Ligand: Topology Variety and Gas Sorption Properties.	*Cryst. Growth Des.* 2016, 16, 5554−5562. DOI: 10.1021/acs.cgd.6b01031	Bing Zheng, Xiaodong Sun, Guanghua Li, Amy J. Cairns, Victor Ch. Kravtsov, Qisheng Huo, Yunling Liu, and Mohamed Eddaoudi.
28.	Кристаллография в Молдове.	În: Запоздалый венок любви учителю и человеку. Ed. Борисов С.В., Новосибирск: ИНХ СО РАН, 2016. 206—208 p. ISBN 978-5-90168-837-3.3 (Popularizare).	Виктор КРАВЦОВ
29.	Ultralarge 3d/4f Coordination Wheels: From Carboxylate/Amino Alcohol-Supported {Fe4Ln2} to {Fe18Ln6} Rings.	*Inorganic Chemistry*. 2017, 56 (5), pp 2662–2676. DOI: 10.1021/acs.inorgchem.6b02827. Print Edition ISSN: 0020-1669. Web Edition ISSN: 1520-510X.	Ioana Radu, Victor Ch. Kravtsov, Serghei M. Ostrovsky, Oleg S. Reu, Karl Krämer , Silvio Decurtins, Shi-Xia Liu , Sophia I. Klokishner, Svetlana G. Baca.
30.	Synthesis and structural characterization of polynuclear Co(II,III) isobutyrate cluster	The 10th Edition “New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection”, June 08-09, 2017, Timisoara, Romania, p.17	Dumitru D. Stati, Victor Ch. Kravtsov, Svetlana G. Baca
3	Structure, magnetic	Physical review B 96, 054417 (2017).	V. Tsurkan, L.

2.	susceptibility, and specific heat of the spin-orbital-liquid candidate FeSc2S4: Influence of Fe off-stoichiometry.	DOI: 10.1103/PhysRevB.96.054417. ISSN: 2469-9950 (print), 2469-9969 (online). 1538-4489 (CD-Rom). Impact Factor: 3.836.	Prodan, V. Felea, I. Filippova, V. Kravtsov, A. Günther, S. Widmann, H.-A. Krug von Nidda, J. Deisenhofer, A. Loidl.

MIHAI MACOVEI, dr. hab, conf. cerc.

1. N. Cui, C. H. Keitel, M. Macovei "*Interference-induced peak splitting in EUV superfluorescence*" Optics Letters V.**38**, 570-572 (2013).
2. B. Mohan, M. A. Macovei "*Incoherent excitation of few-level multiatom ensembles*" Jr. of Phys. B: At. Mol. Opt. Phys. **46**, 035503 (2013).
3. M. A. Macovei "*Optical force acting on strongly driven atoms in free space or modified reservoirs*" Jr. of Phys. B: At. Mol. Opt. Phys. **46**, 045502 (2013).
4. X.-T. Xie, V. Ciornea, M. Macovei "*Two-photon quantum dynamics in a nonlinear micromaser*" Proceedings of the Romanian Academy, Series A **14(1)**, 48-55 (2013).
5. V. Ciornea, P. Bardetski, M. A. Macovei "*Enhanced photon correlations due to strong laser-atom-cavity coupling*" Phys. Rev. A **88**, 023851 (2013).
6. V. Ciornea, P. Bardetski, M. A. Macovei "*Detuning-dependent dynamics of microcavity photon-statistics*" Romanian Reports in Physics **65(3)**, 1006-1011 (2013).
(Dedicated to Professor Valentin I. Vlad's 70th Anniversary).
7. S. Das, M. A. Macovei "*Collective quantum dot inversion and amplification of photon and phonon waves*" Phys. Rev. B **88**, 125306 (2013).
8. M. Cerbu, M. A. Macovei, G.-x. Li "*Cooling a two-level emitter in photonic-crystal environments*" Phys. Rev. A **89**, 013837 (2014).
9. S. Carlig, M. A. Macovei "*Quantum correlations among optical and vibrational quanta*" Phys. Rev. A **89**, 053803 (2014).
10. S. Carlig, M. A. Macovei "*Long-time correlated quantum dynamics of phonon cooling*" Phys. Rev. A **90**, 013817 (2014).
11. V. Ciornea, M. A. Macovei "*Cavity-output-field control via interference effects*" Phys. Rev. A **90**, 043837 (2014).
12. M. Macovei, C. H. Keitel "*Quantum dynamics of a two-level emitter with a modulated transition frequency*" Phys. Rev. A **90**, 043838 (2014).
13. V. Ciornea, P. Bardetski, M. A. Macovei "*Time-dependent highly correlated photons*" Optics Commun. **343**, 121 (2015).
14. M. Macovei, M. Mishra, C. H. Keitel "*Population inversion in two-level systems possessing permanent dipoles*" Phys. Rev. A **92**, 013846 (2015).

15. V. Ceban, M. A. Macovei „*Sub-Poissonian phonon statistics in an acoustical resonator coupled to a pumped two-level emitter*" Journal of Experimental and Theoretical Physics **121(5)**, 793-798 (2015).
16. V. Ceban, M. A. Macovei „*Cavity quantum interferences with three-level atoms*" J. Opt. Soc. Am. B **33(5)**, 942-946 (2016).
17. V. Ciornea, P. Bardetski, M. A. Macovei "*Phase Dependence of the Unnormalized Second-Order Photon Correlation Function*" Journal of Experimental and Theoretical Physics **123**(4), 582-586 (2016).
18. V. Ceban, P. Longo, M. A. Macovei "*Fast phonon dynamics of a nanomechanical oscillator due to cooperative effects*" Phys. Rev. A **95**, 023806 (2017).
19. S. Carlig, M. A. Macovei "*Enhanced Vibrational Quantum Dynamics beyond the Rotating Wave Approximation*", JETP Letters **105**(8), 526-530 (2017).

20. L. Jin, J. Evers, M. A. Macovei, "*Collective dynamics in a laser-pumped mixture of two atomic ensembles*" J. Opt. Soc. Am. B **34(6)**, 1280-1285 (2017).

Publicații științifice în reviste de specialitate naționale:

21. S. Carlig, M. A. Macovei „*Interferența luminii împrăștiate de două puncte cuantice / Light interference scattered from a quantum dot pair*" Akademos Nr. 1 (32), pp. 51- 53 (2014).
22. S. Carlig, V. Ceban, M. A. Macovei „*Sistemele optomecanice – puntea între nano și macrolume*" Akademos Nr. 4 (39), pp. 21-27 (2015).
23. V. Ceban, M. A. Macovei „*Quantum dynamics of acoustical phonon statistics*" Fizică și Tehnică: Procese, modele, experimente, Nr. 2, 18-22 (2015). UDC: 621.375.826
24. S. Carlig, M. A. Macovei "*Dinamica rezonatorului nanomecanic cuantificat, cuplat cu un sistem de atomi artificiali*" Akademos Nr. 2 (45), pp. 33-35 (2017).
Alte publicații:
25. V Ciornea, P Bardetski, M. A Macovei "*Cavity Field Suppression via Interference Effects*" In Proceedings of the 3rd International Conference on Nanotechnologies and Biomedical Engineering: September 23-26, 2015, Chisinau, Moldova [IFMBE Proceedings **v55**(2), 127-130 (2016, Springer)].

VALENTIN MIHAILOV, dr., conf. cerc

Nr. crt.	**Denumirea lucrării**	**Date bibliografice**	**Coautorii lucrării**
1	2	3	5
1.	*К 70-летию со дня основания метода электроискрового легирования***.**	*Вестник Амурского государственного университета***.** ***2013****. Вып. 61: Сер. Естеств. и экон. науки. 162-176.*	ВЕРХОТУРОВ А.Д., ГИТЛЕВИЧ А.Е., МИХАЙЛОВ В.В., КОНЕВЦОВ Л.А.
2.	Электроискровое легирование титана и его сплавов, физико-технологические аспекты и возможность практического использования. Краткий обзор. Часть I..Особенности массопереноса, структурные и фазовые превращения в поверхностных слоях, их износо- и жаростойкость.	*Электронная обработка материалов.* ***2013****, 49(5), 21-44. ISSN 0013-5739*	МИХАЙЛОВ В.В., ГИТЛЕВИЧ А.Е., ВЕРХОТУРОВ А.Д., МИХАЙЛЮК А.И., БЕЛЯКОВ А.В., КОНЕВЦОВ Л.А.
3.	Wear behavior of electrospark coatings on steel.	International Scientific Conference„BALTRIB-2013".Institute of Power and Transport Machinary Engineering.Kaunas, Lituani. **2013**. 104-110. ISSN 1822-8801.	J. PADGURSKAS, A. ANDRIUSIS, R. KREVAITIS V. MIHAILOV A. IANACHEVICI

4	Investigation of tribological properties of piezoelectric actuators using the rotors' friction surface of electro-spark carbides**.**	*7th International Conference on Materials Science and condensed matter Physics. Abstracts.Chisinau, Moldova, September 16-19*, **2014, 277.**	ZUNDA, A.; PADGURSKAS, J.; ANDRIUSIS, A.; RUKUIZA, R.; MIHAILOV,V.; METRIKAITE, D..
5.	Effect of load on tribological Properties of some Coatings obtained by electrospark Alloying on 45 Steel Surfaces.	*7thInternational Conference on Materials Science and condensed matter Physics. Abstracts. Chisinau, Moldova, September 16-19*, **2014,** 318**.**	AGAFII.V, PADGURSKAS,J. MIHAILOV,V. ANDRIUSIS, A. KREIVAITIS, R. ZUNDA, A.
6.	Electrophysical and structurally-Phases Aspects of Formation of ESA-Coverings on the Iron-Carbon, Titanic and hard Alloys, operational Properties defining them	*7thInternational Conference on Materials Science and condensed matter Physics. Abstracts .Chisinau, Moldova, September 16-19*, **2014,** 324.	GITLEVICH,A.E.; MIHAILIUC,A.I.; VERHOTUROV,A.D.; MIHAILOV,V.V.; KONEVTSOV, L.A.
7.	Improvement of the tribological Properties of Stainless Steel 04X18H10 by Electrospark Alloys.	*7th International Conference on Materials Science and condensed matter Physics. Abstracts.Chisinau, Moldova, September 16-19*, **2014**, 325.	AGAFII, V.I.; PADGURSKAS, J.;MIHAILOV,V.; ANDRIUSIS,A.; IANACHEVICH, A.
8.	Cementation of Steel 3 at Anode Electrolytic Heating in the Magnetic Field.	*7thInternational Conference on Materials Science and condensed matter Physics. Abstracts.Chisinau, Moldova, September 16-19*, **2014**, 326.	SHKURPELO, A.I.; MIHAILOV,V.; PERETIATKU, P.V.; CRACAN, C.
9.	Electrospark Alloying of Titanium and its Alloys, the physico-technical Perspectives of it (Electrospark Graphitization and Corrosion Resistance).Part 2.	*7thInternational Conference on Materials Science and condensed matter Physics. Abstracts. Chisinau, Moldova, September 16-19*, **2014**, 334	GITLEVICH, A.E.; MIHAILOV, V.V.; VERHOTUROV, A.D.; MIHAILIUK, A.I. KONEVTSOV, L.A. KUDRYASHOV, L.A. KORNIENKO, L.P.
10.	Improvement of the reliability of friction pairs by electrospark alloying**.**	*Buletinul AGIR.România. 3**.** **2015**. 43-46. ISSN-L 1224-7928.*	AGAFII, V.; MIHAILOV, V.; IANACHEVICI, A.; KAZAK, N.
11.	Increasing wear Resistance of 30X13 stainless Steel by electrospark Alloying.	*BALTTIB'2015 VIII International Scientific Conference. Proceedings. Aleksandras Stulginskis University Kaunas, Lithuania, 26-27 November **2015**, P.77-82.*	AGAFII V..PADGURSKAS, J.MIHAILOV,V. ANDRIUSIS,A. IANACHEVICI, A.

12.	The wear Resistance of Electrospark Coatings on steel c45 when operating with Counterbodies of different Steels	Agricultural Engineering, Research Papers, **2015**, Vol. 47, 1-5. *ISSN 1392-1134/ eISSN 2345-0371*	V.AGAFII PADGURSKAS J. V. MIHAILOV, A. ANDRIUSIS, R. KREIVAITIS, N. KAZAK
13.	*К вопросу формирования жаро-, износо-, коррозионностойких поверхностных слоев при электроискровом легировании титана и его сплавов*.	*Международный симпозиум «Наука. Инновации.Техника и технологии: проблемы, достижения и перспективы».Комсомольск-на-Амуре, 12-16 мая**,* ***2015****, 58-61*.	ВЕРХОТУРОВ,; ГИТЛЕВИЧ, А.Е.; МИХАЙЛОВ, В.В.; МИХАЙЛЮК, А.И.; КОНЕВЦОВ, Л.А.
14.	Влияние структуры и морфологических особенностей наноуглеродного компонента на электрофизические свойства фторопластовых композиционных материалов.	*Электронная обработка материалов*, ***2015****, 51(6), 1-8.*	АВРАМЕНКО, Т.Г., МАКСИМОВ,; Г.А., ИВАНЕНКО,; Е.А., МИХАЙЛОВ,; В.В., ШЕВЧЕНКО,; И.П., РЕВО С.Л.
15.	Investigation of Tribological Properties of Carbide Coatings Deposited by Electrospark at Piezoelectric Tribocontact.	*Электронная обработка материалов.* ***2015****, 51(2), 24-30. ISSN 0013-5739.*	PADGURSKAS,J., ŽUNDA,A., RUKUIŽA,R.,ANDRIUŠIS,A., MIHAILOV,V., METRIKAITĖ D.
16.	Improvement of wear Resistance of 4 Titanium Alloy by Electrospark Alloying	*8th International Conference on Materials Science and condensed matter Physics. Abstracts. Chisinau, Moldova, September 12-16,* ***2016****,P.328.*	J. PADGURSKAS, V.AGAFII. V. MIHAILOV, A. ANDRIUSIS, R. KREIVAITIS, N. KAZAK
17.	Obtaining electrospark coatings on steel 45 and indentifying optimal friction couples	*8th International Conference on Materials Science and condensed matter Physics. Abstracts. Chisinau, Moldova, September 12-16, 2016,*P.329.	PADGURSKAS, V.AGAFII .J. V. MIHAILOV, A. ANDRIUSIS, R. KREIVAITIS
18.	Influence of sliding distance and load on wear of electrospark coatings	*8th International Conference on Materials Science and condensed matter Physics. Abstracts. Chisinau, Moldova, September 12-16,* ***2016****,* P.330.	J.PADGURSKAS, AGAFII V. V. MIHAILOV, A. ANDRIUSIS, R. KREIVAITIS, N. KAZAK
19.	Surface modification of structural steels and titanium alloys by synthesizing carbide phases with electro-spark alloying electrodes of transition metals iv - vi groups and graphite	*8th International Conference on Materials Science and condensed matter Physics. Abstracts. Chisinau, Moldova, September 12-16,* ***2016****,*P.328.	N. KAZAK, V.AGAFII. V. MIHAILOV, A. IANACHEVICI.
20.	Tribological Properties of Combined Molybdenum Coatings Formed by Electric-Spark Alloying	*Journal of Friction and Wear, 2016, Vol. 37, No. 5. 448–453. © Allerton Press, Inc.,* ***2016****.*	J. PADGURSKAS, V.AGAFII. V. MIKHAILOV,

	on Stainless Steel	*ISSN 1068-3666 (IF: 0,514),*	R. RUKUIZA, R. KREIVAITIS
21	**Tribological properties of coatings obtained by electro-spark alloying C45 steel surfaces.**	Surface and Coatings Technology. Volume 311, Pages 90-97 (15 February **2017**). ISSN: 0257-8972 (IF: 2,589)	J. PADGURSKAS, R. KREIVAITIS, R. RUKUIZA, V. MIHAILOV, V. AGAFII, R. KRIŪKIENĖ, A. BALTUSNIKAS

ALBINA NICOLAEVA, dr.hab.,conf.cer., prof.

1. А.А. НИКОЛАЕВА, Л.А. КОНОПКО, Т.Е. ХУБЕР, А.К. КОБЫЛЯНСКАЯ, Г.И. ПАРА. Топологические переходы Лифшица, индуцированные деформацией и легированием в монокристаллических нитях висмута. **Low Temperature Physics/Физика низких температур**, 43(2), 313–321, (2017). **IF 0.804**
2. LEONID KONOPKO, ALBINA NIKOLAEVA, TITO HUBER, KRZYSZTOF ROGACKI. Quantum oscillations in topological insulator microwires contacted with normal and superconducting leads. **Physica B: Condensed Matter,** 2017**. IF 1.386**
3. А. А. НИКОЛАЕВА, Л. А. КОНОПКО, К. РОГАЦКИЙ, П.П. БОДЮЛ, И. ГЕРГИШАН. Термоэлектрические свойства и поверхностные состояния в слоях топологических изоляторов Bi2Te3. **Surface Engineering and Applied Electrochemistry**, 53(5), 2017. **(Accepted for publication).**
4. KONOPKO, L.A.;· NIKOLAEVA, A.A.; HUBER, T.E.;· ANSERMET, J.-P. Surface states transport in topological insulator Bi0.83Sb0.17 nanowires. **J. Low Temp Phys.** 2016, **185**(5), 673-679. DOI 10.1007/s10909-016-1505-0. ISSN: 0022-2291. (IF: 0.787)
5. NIKOLAEVA, A.A.; KONOPKO, L.A.; TSURKAN, A.K.; MOLOSHNIK, E.F. Lifshitz topological impurity transitions in bismuth wires doped with acceptor and donor impurities. **Surface Engineering and Applied Electrochemistry.** 2016, **52**(1), 99-109. ISSN: 1068-3755.
6. NIKOLAEVA, A.A.; KONOPKO, L.A.; ROGATSKYI, K.; SHEPELEVICH, V.G.; PROKOSHIN, V.I.; GUSAKOVA, S.V.; BODIUL, P.P.; GRITSKO, R. Thermoelectric properties of foils of semimetal and semiconductor Bi1-xSbx alloys. **J. Thermoelectricity.** 2016, **2**, 18-27. ISSN: 1607-8829.
7. AVERKIEV, N.S.; BEREZOVETS, V.A.; SAVCHENKO, G.M.; and NIKOLAEVA, A. Galvanomagnetic effects in tellurium whiskers. **Phys. Status Solidi (b).** doi: 10.1002/pssb.201552373, (2015). (IF: 1.489)
8. NIKOLAEVA, A.A.; KONOPKO, L.A.; TSURKAN, A.K.; SINYAVSKII, E.P.; BOTNARI, O.V. Effect of negative magnetoresistance in a transverse magnetic field in quantum Bi wires. **Surface Engineering and Applied Electrochemistry.** 2015, **51**(1), 46–53. ISSN 1068-3755.
9. НИКОЛАЕВА, А.А.; КОНОПКО, Л.А.; ХУБЕР, Т.Е.; КОБЫЛЯНСКАЯ, А.К.; ПАРА, Г.И. Влияние топологических переходов Лифшица, индуцированных деформацией растяжением на термоэдс и сопротивление нитей висмута. **Журнал Термоэлектричество.** 2015, **4**, 19-29. ISSN 1726-7692.
10. NIKOLAEVA, A.A.; KONOPKO, L.A.; HUBER, T.E.; POPOV, I.A.; BODIUL, P.P.; MOLOSHNIK, E.F. Temperature and magnetic field dependences of the resistance and thermopower in a topological insulator Bi1-xSbx wires**. Phys. Status Solidi A** 2014, vol. 211, n. 6, p. 1325–1328. (IF: 1,469)
11. GRABOW, V.M.; DEMIDOV, E.V.; KOMAROV, V.A.; MATVEEV, D.; NIKOLAEVA, A.A.; MARKUSHEVS, D.; KONSTANTINOV, E.V., KONSTANTINOV, E.E. Size effect in galvanomagnetic phenomena in bismuth films doped with tellurium. **Semiconductors**, 2014, vol. 48, no. 5, p. 630-635. (IF: 0,705)

12. НИКОЛАЕВА, А.А.; КОНОПКО, Л.А.; БОДЮЛ, П.П.; ЦУРКАН, А.К. Особенности диффузионной термоэдс при примесном электронном топологическом переходе в сильнолегированных нитях висмута. **Ж. Термоэлектричество** 2014, №3, стр. 30-43.
13. KONOPKO, L.A.; NIKOLAEVA, A.A.; HUBER, T.E. and MEGLEI, D.F. Thermoelectric properties of Bi_2Te_3 microwires. **Phys. Status Solidi C** 2014, vol. 11, n. 7–8, p.1377–1381.
14. NIKOLAEVA, A.A.; KONOPKO, L.A.; HUBER, T.E.; TSURKAN, A.K.; MEGLEI, D.F. and MATVEEV, D.Yu. Galvanomagnetic and thermoelectric properties of Te doped single-crystal bismuth wires. **Phys. Status Solidi C** 2014, vol. 11, n. 7–8, p. 1373–1376.
15. HUBER, T.; SCOTT, R.; SCOTT, J.; BROWER, T.; NIKOLAEVA, A.; KONOPKO, L. Thermoelectric nanowire arrays response to illumination. Reinhold Egger, Davron Matrasulov, Khamdam Rakhimov eds. **Low-Dimensional Functional Materials, NATO Science for Peace and Security Series B: Physics and Biophysics. Springer**, 2013 pp. 217-224. doi: 10.1007/978-94-007-6618-1_17.
16. KONOPKO, L.A.; HUBER, T.E.; NIKOLAEVA, A.A.; BURCEACOV, L.A. Quantum interference of surface states in bismuth nanowires in transverse magnetic fields. **J Low Temp. Phys.** 2013, **171**(5-6), 677–684. ISSN: 0022-2291. doi: 10.1007/s10909-012-0850-x. (IF: 1.183)
17. NIKOLAEVA, A.A.; KONOPKO, L.A.; HUBER, T.E.; ANSERMET, J.-PH.; POPOV, I.A. Thermoelectric phenomena in Bi1-xSbx nanowires in semimetal and gapless region. **J. Nanoelectron. Optoelectron.** 2012, 7(7), 671-677. doi: 10.1166/jno.2012.1414. ISSN: 1555-130X (IF: 0.479)
18. HUBER, T.E.; OWUSU, K.; JOHNSON, S.; NIKOLAEVA, A.; KONOPKO, L.; JOHNSON, R. C.; GRAF, M.J. Thermoelectric prospects of nanomaterials with spin-orbit surface bands. **J. Appl. Phys.** 2012, 111(4), 043709. ISSN 0021-8979. doi: 10.1063/1.3686206. (IF: 2,168)
19. NIKOLAEVA, A.A.; KONOPKO, L.A.; HUBER, T.E.; BODIUL, P.P.; POPOV, I.A. Prospects of nanostructures Bi1−xSbx for thermoelectricity. **Journal of Solid State Chemistry.** 2012, 193, 71-75. ISSN: 0022-4596. http://dx.doi.org/10.1016/j.jssc.2012.03.063. (IF: 2,159)
20. NIKOLAEVA, A.A.; POPOV, I.A.; KONOPKO, L.A.; MOLOSHNIK, E.F.; HUBER, T.E.; BODIUL P.P. Size-Quantization semimetal – semiconductor transition in Bi0.98Sb0.02 nanowires: thermoelectric properties. **Journal of Electronic Materials.** 2012, 36(2), 1-4. ISSN: 0361-5235. doi: 10.1007/s11664-012-2090-x. (IF: 1,466)

BREVETE

1. Cerere de brevet de invenție de scurtă durată. Nr.depozit: a2016 0128, Data depozit: 2016.11.17.
   Procedeu de obținere a semiconductorului monocristalin de bismut-stibiu cu lățimea benzii energetice interzise nulă. HOTĂRÂREA nr. 8730 din 2017.05.19.
   NIKOLAEVA Albina, MD, BODIUL Pavel, MD, KONOPKO Leonid, MD, PARA Gheorghe, MD.
2. Cerere de brevet de invenție de scurtă durată. Nr.depozit: a2016 0129, Data depozit: 2016.11.17.
   Procedeu de obținere a semiconductorului monocristalin de bismut-stibiu cu lățimea benzii energetice interzise nulă. HOTĂRÂREA nr. 8731 din 2017.05.19.
   NIKOLAEVA Albina, MD, BODIUL Pavel, MD, KONOPKO Leonid, MD, PARA Gheorghe, MD, GHERGHIȘAN Igor, MD.
3. Brevet de invenţie MD 886. 2015.02.28.
   Procedeu de obtinere a semimetalelor monocristaline de bismut-stibiu.
   NIKOLAEVA, A.; BODIUL, P.; KONOPKO, L.; POPOV, I.; MOLOSNIC, E.
4. Brevet de invenţie MD 4333. 2015.02.28.
   Termoelement anizotrop monocristalin de tip transversal.
   KONOPKO, L.; NIKOLAEVA, A.; BODIUL, P.; ȚURCAN, A.

5. Brevet de invenţie MD 857. 2014.12.31.
   Procedeu de obţinere a semiconductorilor monocristalini de Bi-Sb.
   NIKOLAEVA, A.; KONOPKO, L.; BODIUL, P.; POPOV, I.; BOTNARI, O.; BORŢOI, T.
6. Brevet de invenţie MD 827. 2014.10.31.
   Procedeu de obţinere a semiconductorilor monocristalini de bismut-stibiu.
   NIKOLAEVA ALBINA, BODIUL, PAVEL, KONOPKO LEONID, POPOV ION, MOLOŞNIC EVGHENII.
7. Brevet de invenţie MD 837. 2014.11.30.
   Procedeu de obţinere a semimetalilor monocristaline de Bi-Sb.
   NIKOLAEVA ALBINA, KONOPKO LEONID, BODIUL, PAVEL, POPOV ION, PARA GHEORGHE, BOTNARI OXANA, BORȚOI TUDOR.
8. Brevet de invenţie MD 753. 2014.03.31.
   Procedeu de obţinere a contactului microfirului în izolaţie de sticlă.
   SIDELNICOVA S.; GLOBA P.; CONOPCO L.; NIKOLAEVA A.; DIKUSAR A.
9. Brevet de invenţie MD 575. 2012.01.31.
   Procedeu de recristalizare a firului de bismut în izolaţie de sticlă.
   NIKOLAEVA Albina, MD; BODIUL Pavel, MD; KONOPKO Leonid, MD; ŢURCAN Ana, MD; STICI Ivan, MD.

Vitalie POSTOLATII, acad., prof. univ.

1.	Вычислительный комплекс для мониторинга и анализа энергетической безопасности	В сборнике докладов 2 м/н конференции «Энергетика Молдовы-2012», 4-6 октября 2012, г. Кишинев ,с.63-70. ISBN 978-9975-62-324-7	2012	Быкова Е.В., Постолатий В.М., Чиник М.А., Гродецкий М.В., Кириллова Т.И.
2.	Управляемые компактные линии электропередачи переменного тока	В сборнике докладов 2 м/н конференции «Энергетика Молдовы-2012», 4-6 октября 2012, г. Кишинев с.252-274 ISBN 978-9975-62-324-7	2012	Постолатий В.М., Быкова Е.В., Суслов В.М., Шакарян Ю.Г., Тимашова Л.В., Карева С.Н.
3.	Альтернативные варианты развития межсистемных связей Молдовы, Румынии и Украины на базе двухцепных управляемых линий электропередач.	В сборнике докладов 2 м/н конференции «Энергетика Молдовы-2012», 4-6 октября 2012, г. Кишинев с.461-466. ISBN 978-9975-62-324-7	2012	Постолатий В.М., Быкова Е.В., ГолубИ.В., Бошняга В.А..
4.	Определение необходимого объема резервных мощностей подземных хранилищ природного газа	В сборнике докладов 2 м/н конференции «Энергетика Молдовы-2012», 4-6 октября 2012, г. Кишинев с.476-485. ISBN 978-9975-62-324-7	2012	Постолатий В.М. , Берзан В.П. , Быкова Е.В. , Голуб И.В. , Суслов В.М, ,Морарь Л.П. [1], Алказ В.Г., Слюсарь Б.С. , Царану М. Х. , Федотова Э.О.
5.	Определение мест размещения потенциальных подземных газохранилищ.	В сборнике докладов 2 м/н конференции «Энергетика Молдовы-2012», 4-6 октября 2012, г. Кишинев с.485-489. ISBN 978-9975-62-324-7	2012	Постолатий В.М. , Берзан В.П. , Быкова Е.В. , Алказ В.Г., Слюсарь Б.С., Исичко Е.С. , Богдевич О.П. , Федотова Э.О .
6.	Предварительная оценка	В сборнике докладов 2	2012	Постолатий В.М. , Берзан

	затрат на создание ПХГ	м/н конференции «Энергетика Молдовы-2012», 4-6 октября 2012, г. Кишинев с.489-493. ISBN 978-9975-62-324-7		В.П. , Быкова Е.В., Орештян О.В. , Алказ В.Г., Слюсарь Б.С., Федотова Э.О .
7.	. Варианты развития магистральных газовых сетей Молдовы, необходимые для обустройства ПХГ	В сборнике докладов 2 м/н конференции «Энергетика Молдовы-2012», 4-6 октября 2012, г. Кишинев с.500-507. ISBN 978-9975-62-324-7	2012	Постолатий В.М. , Берзан В.П. , Быкова Е.В, Голуб И.В. , Суслов В.М,, Алказ В.Г., Слюсарь Б.С., Федотова Э.О .
8.	Эффективные средства транспорта энергии	Научно-технический журнал «Воздушные линии»,№1(6),2012,с.19-23. ISSN 2219-5319	2012	Ю. А. Дементьев, Ю.А. горошин, Ю.Г. Шакарян, Л.В.Тимашова, В.М. Постолатий, Е.В. Быкова , Н.В, Бобылева.
9.	Технические аспекты создания компактных управляемых ВЛ 220 и 500 кВ.	Журнал «Электроэнергия. Передача и распределение», №3(12), май-июнь 2012, с.106-111. ISSN 2218-3116.	2012	Ю. Шакарян, Л. Тимашова, С. Карева, В. Постолатий, Е. Быкова, В. Суслов.
10.	Компактные управляемые линии электропередач	Журнал «Энергия единой сети», август- сентябрь 2012,с.24-29. ISSN-нет!!	2012	Ю. Шакарян, В. Постолатий,Л. Тимашова, С. Карева.
11.	Исследование системной эффективности расширения действующих теплоцентралей в энергосистеме Молдовы	*ProblemeleEnergeticiiRegionale*. 2012, 2(18), 39-52. ISSN 1857-0070.- 12 страниц- 25 тысзнаков	2012	Постолатий В.М., Быкова Е.В.
12.	Energy security threat scenarios for reducing load CHP-1 and CHP-2 moldavian power system	9th World Energy System Conference, June 28-30 2012 Suceava, Romania. Buletinul AGIR nr. 3/2012, -pp.547-553. ISSN-L 1224-7928. Online: ISSN 2247-3548. http://www.agir.ro/buletine/1436.pdf 7 стр-16 тысзнаков	2012	. BICOVA, Elena; POSTOLATY, Vitaly; GRODETSKII, Mihail
13.	Compact Controllable Ohl 220 And 500 Kv: Technical Aspects Of Developing And Regime Characteristics During Operation In Power Grids	*9th World Energy System Conference, June 28-30 2012 Suceava, Romania. Buletinul AGIR nr. 3/2012, -pp.579-590. ISSN-L 1224-7928*	2012	VitalyM. Postolati, VitaliM. Postolaty ,ElenaV. Bykova , ViktorM. Suslov ,YuryG. Shakarian, LarisaV. Timashova , SvetlanaN. Kareva
14.	Научная школа в области управляемых электропередач. Этапы исследований и библиография.	Монография. Типография АНМ, 2012, 196 стр. ISBN 978-9975-62-318-6	2012	Постолатий В.М.
15.	Анализ влияния недозагрузки ТЭЦ на энергосбережение в	. Анализ влияния недозагрузки ТЭЦ на энергосбережение в	2012	Постолатий В.М., Быкова Е.В, Царану М.Х.

	Республике Молдова	Республике Молдова. ProblemeleEnergeticiiRegionale. 2012, 1(17), 39-52 ISSN 1857-0070		
16.	*Результаты совместных работ в области повышения эффективности электроэнергетических систем*.	Сборник трудов Конференции «ЭНЕРГЕТИКА: УПРАВЛЕНИЕ, КАЧЕСТВО И ЭФФЕКТИВНОСТЬ ИСПОЛЬЗОВАНИЯ ЭНЕРГОРЕСУРСОВ» 29 – 31 мая 2013 г. г. Благовещенск, Амурская область , с.63-66. ISBN 978-5-93493-154-5	2013	БЫКОВА Е.В. ПОСТОЛАТИЙ В.М.
17.	*Анализ систем теплоснабжения и пути увеличения их эффективности для повышения энергетической безопасности*	. Сборник трудов Конференции «ЭНЕРГЕТИКА: УПРАВЛЕНИЕ, КАЧЕСТВО И ЭФФЕКТИВНОСТЬ ИСПОЛЬЗОВАНИЯ ЭНЕРГОРЕСУРСОВ» 29 – 31 мая 2013 г. г. Благовещенск, Амурская область. с. 413-420.ISBN 978-5-93493-154-5	2013	БЫКОВА, Е. ПОСТОЛАТИЙ В.М.
18.	*Разработка индикаторов сектора децентрализованного теплоснабжения*.	«Экономика региона», Екатеринбург, Россия, 2013 , №2, с.106-114.ISSN 2072-6414.	2013	БЫКОВА, Е.В. ПОСТОЛАТИЙ В.М.
19.	*Эффективность применения компактных управляемых линий электропередачи для формирования межсистемных и межгосударственных транзитов*.	Доклад 15.04.2013 ИнтерРАО ЕЭС, 15 апреля 2013.	2013	ПОСТОЛАТИЙ В.М. ШАКАРЯН Ю.Г., ТИМАШОВА Л.В., КАРЕВА С.Н., БЫКОВА Е.В., СУСЛОВ В.М., БОБЫЛЕВА Н.В., УТЦ Н.Н.
20.	*Транзитные возможности юго-западной части объединенной электроэнергетической системы стран содружества независимых государств*.	Сборник докладов XV Международной научно-технической Конференции «Перспективы развития электроэнергетики и высоковольтного электротехнического оборудования. Энергоэффективность и энергосбережение». ТРАВЭК-2013. 19-20 марта 2013.Доклад 1-20.	2013	ПОСТОЛАТИЙ В.М. БЫКОВА Е.В., ГОЛУБ И.В

21.	*Новые технические решения в области ВЛ 110, 220 кВ повышенной пропускной способности и надежности*. Научно-практическое совещание «СОВРЕМЕННЫЕ ПОДХОДЫ К ОБЕСПЕЧЕНИЮ НАДЕЖНОСТИ ЭЛЕКТРОЭНЕРГЕТИЧЕСКИХ СИСТЕМ».	Сыктывкар, Республика Коми, Россия , 22-23 мая 2013 г. 26,4 тыс знаков, 10 страниц, 0,66 п.л.	2013	ПОСТОЛАТИЙ В.М. БЫКОВА Е.В.
22.	*Моделирование переходных режимов молдавской энергосистемы по условиям статической устойчивости.*	Problemele Energeticii Regionale. 2013, 1(21), с.6-15. ISSN 1857-0070.	2013	ПОСТОЛАТИЙ В.М. ГОЛУБ, И.В.
23.	*Моделирование перенапряжений в кабельной распределительной сети 10 кВ при однофазных дуговых замыканиях на землю*.	Problemele Energeticii Regionale. 2013, 1(21), с.26-40. ISSN 1857-0070.	2013	БОШНЯГА, В.А.; СУСЛОВ, В.М.; ПОСТОЛАТИЙ В.М. КЛИНДУХОВ А.Н.
24.	*Транзитные возможности юго-западной части объединенной электроэнергетической системы стран СНГ*.	Сборник научных статей «Современная наука», 2013, №3(5), с.146-151. . ISSN 2076-6866 5 стр, 16 тыс знаков-	2013	ПОСТОЛАТИЙ В.М. БЫКОВА Е.В., ГОЛУБ И.В.
25.	*Моделирование режимов транзитных связей объединенных энергосистем*.	ТРАВЭК-11-12 ноября 2013	2013	ПОСТОЛАТИЙ В.М.БЫКОВА, Е.В.
26.	О*СНОВНЫЕ ПРОБЛЕМЫ ЭНЕРГЕТИКИ МОЛДОВЫ И ВОЗМОЖНАЯ РОЛЬ ВИЭ В ИХ РЕШЕНИИ*	. Глава по Молдове в книге «Проблемы энергетики и нетрадиционные источники энергии», с.75-88. МНЦТИ, Москва	2014	БЫКОВА, Е.В.; БЕРЗАН, В.П.; ПОСТОЛАТИЙ В.М.
27.	*Basic problems of power engineering of Moldova and a potential role of renewable energy sources (RES) in their solution.*	Power Engineering and Nonconventional Sources of Energy, с.65-77.МНЦТИ, Москва	2014	BYKOVA,E.;BERZAN,V.. ПОСТОЛАТИЙ В.М.
28.	*Проблемы совместной работы электроэнергетических систем Молдовы, Украины и Румынии.*	Сборник трудов Международной научно-практической конференции "Проблемы энергообеспечения и энергосбережения в АПК Украины" и Круглого стола «Стратегия	2014	ПОСТОЛАТИЙ В.М. БЫКОВА, Е.В.

		развития технологий *smartgrid* в электроэнергетической отрасли Украины»,6-7 ноября 2014 г. ХНТУСХ, Харьков, Украина.		
29.	*Анализ показателей энергопотребления в сельском хозяйстве Молдовы.*	Сборник трудов научного семинара к 60-летию Б. Боинчану, Faculty of Exact, Economic and Environmental Sciences, Alecu Russo Balti State University,*г. Бельцы,* 24-25 ноября 2014.	2014	БЫКОВА, Е.В.; ГРОДЕЦКИЙ; М.В.; МОРАРУ, Л.П. ПОСТОЛАТИЙ В.М.
30.	Эффективность передачи электрической энергии при применении компактных управляемых ВЛ.	Журнал «Энергия единой сети», июнь- июль 2014 , №3(14), с. 4-16.	2014	Шакарян Ю. Г., Тимашова Л.В., Карева С.Н. Постолатий В.М.
31.	Анализ показателей себестоимости электроэнергии и теплоэнергии.	Сборник научных трудов ИЭ АНМ Analele" за 2011-2014.	2015	БыковаЕ.В., ПостолатийВ.М. МиронВ., ГуцуВ.В., МоисеевФ.Е.
32.	Possible Operation Modes of Moldovan, Ukrainian and Romanian Electrical Power Systems Joint Work.	*Problemele Energeticii Regionale*, 2015, 28(2), 1-6. ISSN 1857-0070.	2015	V. Postolati E. Bykova, V. Berzan, V. Boshneaga, V. Suslov, T. Radilov
33.	Опыт разработки, проектирования, эксплуатации управляемых электропередач в молдавской энергосистеме 10-110 кв.	Журнал ВИЭСХ «ИННОВАЦИИ В СЕЛЬСКОМ ХОЗЯЙСТВЕ», №2(12)/2015, с.281-285 . (http//ej.viesh.ru), ISSN 2304-4926	2015	Постолатий В.М. Быкова Е.В.
34.	Компактные управляемые линии электропередачи 110-500 кВ.	Сборник трудов международной конференции СИГРЭ-2015 , Париж, Франция. 23 стр, 60 тыс знаков, 1,5 п.л.	2015	Л.В. ТИМАШОВА, Ю.Г. ШАКАРЯН, С.Н. КАРЕВА, Е.В. ППОСТОЛАТИЙ В.М. БЫКОВА, Ю.А. ГОРЮШИН.
35.	ЭФФЕКТИВНОСТЬ КОМПАКТНЫХ УПРАВЛЯЕМЫХ ВЫСОКОВОЛЬТНЫХ ЛИНИЙ ЭЛЕКТРОПЕРЕДАЧИ.	Журнал ИЭ №3 17 стр, 47 тыс знаков	2015	Постолатий В.М. Быкова Е.В., Суслов В.М., Шакарян Ю.Г. Тимашова Л.В., Карева С.Н.,
36.	*Mathematical Model of Flexible Alternating Current Link Based on Phase-Shifting Transformer with Circular Phase Angle Rotation.*	10th International Conference and Exhibition on Electromechanical and Power Systems Conference SIELMEN 2015. *pp.171-176,* ISBN 978-606-567-284-0	2015	BOSNEAGA, V.A.; SUSLOV, V.M.; POSTOLATI V.M.

37.	First Biennial Update Report of the Republic of Moldova under the United Nations Framework Convention on Climate Change /	Min. of Environment (MoEN), United Nations Environment Progr.(UNEP); Coord.: ValeriuMunteanu, Suzanne Lekoyiet; Synthesis Team: VasileScorpan, Marius Țăranu, Ion Comendant, Lilia Țăranu. - Chisinău: S.n., **2016** (Tipogr. "Bons Offices"). Contributors in Chapter 2, Energy sector ,Grup of energy sector; include 220 p. Bibliographical references in footer. - Published with financial support of the Global Environment Facility (GEF).- 50 cop. ISBN 978-9975-87-078-8. www.clima.md	2016	E.Bicova, T.Kirillova,L.Moraru, V. Postolati
38.	Управляемые компактные линии электропередачи высокого напряжения.	«*Problemeleenergeticiiregionale»*, 1 (30) **2016**, pp.1-13.	2016	ПОСТОЛАТИЙВ.М.БЫКОВА, Е.В., СУСЛОВ, В.М. ТИМАШОВА, Л.В., ШАКАРЯН, Ю.Г., КАРЕВА, С.Н.
39.	Dispozitiv tip reactor-condensatorpentrulegaturăflexibilă a sistemelorenergeticeasincrone.	*"Problemeleenergeticiiregionale"*. N1(30) 2016, pp.47-55, ISSN 1857-0070.	2016	Boşneaga, V., Suslov, V., Postolati
40.	*Particularități ale regimuluisistemuluielectroenergetic al republiciimoldova la realizareainterconexiunii cu România.* 38 тысзнаков, 14 стр. Masa rotundă	WEC CENTRAL & EASTERN EUROPE REGIONAL ENERGY FORUM – FOREN 2016. 12-16 June 2016, Vox Maris Grand Resort, Costinesti, Romania	2016	POSTOLATI V. BERZAN, V.
41.				
42.	Reactor-Capacitor Device for Controlled Active Power Transmission between Non-Synchronous Power Systems.	*WEC CENTRAL & EASTERN EUROPE, REGIONAL ENERGY FORUM, 13th Edition - FOREN 2016 -Safe and Sustainable Energy for the Region, 12-16 June 2016, Vox Maris Grand Resort, Costineşti, Romania.*	2016	Bosneaga V.A., Suslov V.M., Postolati V.
43.	*О подходах к моделированию скоординированного управления отраслями*	Сборниктрудов3 международнойконференции INTERNATIONAL CONFERENCE	2016	ПОСТОЛАТИЙ В.М. БЫКОВА, Е.В., ГРОДЕЦКИЙ, М.В.

	экономики.	"ENERGY OF MOLDOVA – 2016. REGIONAL ASPECTS OF DEVELOPMENT",29 September – 01 October, 2016 - Chisinau, Republic of Moldova, , стр. 424-429, 6 стр, 21,5 тысзнаков, 0.54 п.л.		
44.	*Сравнительный анализ работы ТЭЦ с различной мощностью генерации тепла и электроэнергии.*	Сборниктрудов3 международнойконференции INTERNATIONAL CONFERENCE "ENERGY OF MOLDOVA – 2016. REGIONAL ASPECTS OF DEVELOPMENT",29 September – 01 October, 2016 - Chisinau, Republic of Moldova, стр. 261-272, 12 стр, 44 тысзнаков, 1,1 п.л.	2016	Берзан, В.П,, В.М. Постолатий, Бабич, В.М.
45.	*Некоторые аспекты проблемы обеспечения энергией республики Молдова*	. Сборниктрудов3 международнойконференции INTERNATIONAL CONFERENCE "ENERGY OF MOLDOVA – 2016. REGIONAL ASPECTS OF DEVELOPMENT",29 September – 01 October, 2016 - Chisinau, Republic of Moldova, , стр. 601-609, 10 стр, 34,7 тысзнаков, 0,87 п.л.	2016	БЕРЗАН, В.П., БЫКОВА, Е.В. ПОСТОЛАТИЙ В.М..
46.	*Экологические характеристики управляемых самокомпенсирующихся компактных линий электропередач переменного тока .*	Сборниктрудов3 международнойконференции INTERNATIONAL CONFERENCE "ENERGY OF MOLDOVA – 2016. REGIONAL ASPECTS OF DEVELOPMENT",29 September – 01 October, 2016 - Chisinau, Republic of Moldova, , стр. 301-311, 9 стр, 21,5 тысзнаков, 0,54 п.л.	2016	СУСЛОВ, В.М., ПОСТОЛАТИЙ В.М.
47.	*Использование физического метода для оценки и расчета суммарного коэффициента полезного*	Сборниктрудов3 международнойконференции INTERNATIONAL CONFERENCE "ENERGY OF	2016	ПОСТОЛАТИЙ В.М. БАБИЧ, В.М.

	использования топлива, оценки разнесения затрат и определения себестоимости при производстве тепловой и электрической энергии методом когенерации.	MOLDOVA – 2016. REGIONAL ASPECTS OF DEVELOPMENT",29 September – 01 October, 2016 - Chisinau, Republic of Moldova,, стр. 253-256.		
48.	*Параметры управляемых самокомпенсирующихся компактных линии электропередачи.*	Сборниктрудов3 международнойконференции INTERNATIONAL CONFERENCE "ENERGY OF MOLDOVA – 2016. REGIONAL ASPECTS OF DEVELOPMENT". 29 September – 01 October, 2016 - Chisinau, Republic of Moldova. , стр.287-300, 18 стр, 48,5 тысзнаков, 1,21 п.л.	2016	ПОСТОЛАТИЙ В.М. БЫКОВА, Е.В., СУСЛОВ, В.М., ШАКАРЯН, Ю.Г., ТИМАШОВА, Л.В., КАРЕВА, С.Н.
49.	*Сопоставление результатов расчета пропускной способности и натуральной мощности по различным методикам.*	Сборниктрудов3 международнойконференции INTERNATIONAL CONFERENCE "ENERGY OF MOLDOVA – 2016. REGIONAL ASPECTS OF DEVELOPMENT",29 September – 01 October, 2016 - Chisinau, Republic of Moldova, стр. 283-286, 5 стр, 10 тысзнаков, 0,25 п.л.	2016	ПОСТОЛАТИЙ В.М. ГОЛУБ, И.В.
50.	*Стенд для исследования макетов устройств объединения энергосистем переменного тока*.	Сборниктрудов3 международнойконференции INTERNATIONAL CONFERENCE "ENERGY OF MOLDOVA – 2016. REGIONAL ASPECTS OF DEVELOPMENT",29 September – 01 October, 2016 - Chisinau, Republic of Moldova, стр. 249-252, 6 стр, 9 тысзнаков, 0,225 п.л.	2016	СУВОРОВ, А.С., АНИСИМОВ, В. К. ПОСТОЛАТИЙ В.М.
51.	*Режимы работы энергосистемы Республики Молдова при реализации межсистемной связи с Румынией*.	Сборниктрудов3 международнойконференции INTERNATIONAL CONFERENCE "ENERGY OF MOLDOVA – 2016. REGIONAL ASPECTS OF	2016	ПОСТОЛАТИЙ В.М. БЕРЗАН, В.П.

		DEVELOPMENT" 29 September – 01 October, 2016 - Chisinau, Republic of Moldova**,** стр. 413-423, 10 стр, 31тысзнаков, 0.755 п.л.		

DORMIDONT ŞERBAN, dr.habilitat, prof.univ.

- **Articole în reviste cu factor de impact**

1. Alexei Simashkevich, Dormidont Serban, Leonid Bruc, Nicolai Curmei, Volker Hinrichs, Marin Rusu, Indium tin oxide thin-films prepared by vapor phase pyrolysis for efficient silicon based solar cells, Thin Solid Films, V. 610, pp.35–41, doi:10.1016/j.tsf.2016.04.047, Impact Factor: 1.761.
2. V.S. Zakhvalinskii, E.A. Piliuk, I. Yu Goncharov, A.V. Simashkevich, D.A. Sherban, L.I. Bruc, N.N. Curmei, M.I. Rusu, G.V. Rodrigez. Silicon solar cells based on pSi/nSi_3N_4 nanolayers. Results in Physics, V. 6, 2016, pp, 39–40, doi:10.1016/j.rinp.2016.01.003, Impact Factor: 1.337.
3. V. Zakhvalinskii, E. Piliuk, I. Goncharov, A. Simashkevich, D. Sherban, L. Bruc, N. Curmei, and M. Rusu. Silicon carbide nanolayers as a solar cell constituent. Phys. Status Solidi A 212, No. 1, 126–134 (2015) / DOI 10.1002/pssa.201431460. Impact Factor: 1.525.
4. Н.Д. Курмей, Г Клишевич, И. Мельник, А. Терещенко, Д.Злоба, Д. Шербан Природа мультиплетной структуры спектров люминесценции примесных кристаллов нафталина и бензофенона, ЖПС, 2013,т.80, №4, стр.532-538. ISSN: 0514-7506. Impact Factor: 0.514.

- **Articole în alte reviste din străinătate**

1. L. Dermenji, N. Curmei, M. Guc, G. Gurieva, M. Rusu, V. Fedorov, L. Bruc, D. Sherban, S. Schorr, A. Simashkevich, and E. Arushanov. Effects of Annealing on Elemental Composition and Quality of CZTSSe Thin Films Obtained by Spray Pyrolysis. ISSN 1068-3755, Surface Engineering and Applied Electrochemistry, 2016, Vol. 52(6), pp. 509–514.(IF 0,46 SCOPES)
2. A. Simashkevich, D. Sherban, M. Caraman, M. Rusu, L. Bruc, N. Curmei, Photovoltaic structures ITO/SiO_x/n-Si of increased efficiency, Surface Engineering and Applied Electro-chemistry, 2016, **52(3)**, pp.284-288. ISSN 1068-3755. doi 10.3103/S1068375516030108. 9 (IF 0,46 SCOPES)

- **Articole în reviste locale (doar cele de categorie A, B sau C)**

1. А. Симашкевич, Д. Шербан, М. Караман, М. Русу, Л. Брук, Н. Курмей. Фотовольтаические структуры ITO/SiO_x/n-Si повышенной эффективности, Электронная обработка материалов, 2016, 52(3), стр. 67-71.

Articole în culegeri

1. L. Dermenji, G. Gurieva, M. Guc, S. Levcenko, N. Curmei, L. Bruc, D.A. Sherban, A.V. Simashkevich, S. Schorr, E. Arushanov. $(Ag_xCu_{1-x})_2ZnSnS_4$ THIN-FILMS PREPARED BY SPRAY PYROLYSIS. **33th** European Photovoltaic Solar Energy Conference. 25 - 29 Sept. 2017, Amsterdam, Netherlands. Proceedings in press.
2. A. Simashkevich, L. Bruc, N. Curmei, D. Serban, M. Rusu, A. Thøgersen, A. Ulyashin, ITO/n-Si Based Solar Cells: The Influence of Interfaces on Solar Cell Efficiency, Proceedings of **32th** European Photovoltaic Solar Energy Conference and Exhibition, Munich, Germany 20-24 June, 2016, pp., 850-853.
3. K. Lisunov, L. Bruc, M. Rusu, G. Gurieva, M. Guc, S. Levcenko, L. Dermenji, N. Curmei, D. Sherban, A. Simashkevich, S. Schorr, E. Arushanov, Variable-Range Hopping Versus Inter-Grain Tunneling in $Cu_2ZnSn(SxSe_{1-x})_4$ Thin-Films Prepared by Spray Pyrolysis, Proceedings of **32th** European Photovoltaic Solar Energy Conference and Exhibition, Munich, Germany 20-24 June, 2016, pp. 1186 – 1189.
4. L.Bruc, Th. Dittrich, L.Dermenji, G. Gurieva, S. Vatavu, N. Curmei, M. Guc, D.Sherban, A. Simashkevich, S. Schorr, M.Ch. Lux-Steiner, M. Rusu, E. Arushanov. Surface photovoltage in thin films of $Cu_2ZnSn(S_xSe_{1-x})_4$ obtained by spray pyrolysis, Proceedings of **31st** European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 14-18 September 2015. pp. 1358 - 1361, ISBN 3-936338-39-6 ISSN 2196-0992, DOI 10.4229/ EUPVSEC20152015-3DV.3.30.

5. А.В. Симашкевич, Д.А. Шербан, М.И. Караман, Л.И. Брук, М.И. Русу, Н.Н. Курмей, В.В. Харченко. Зависимость фотоэлектрических параметров структур ITO/SiO_2/n-Si от методики обработки поверхности кремния. ТРУДЫ 9-й Международной научно-технической конференции «Энергообеспечение и энергосбережение в сельском хозяйстве», г. Москва, ГНУ ВИЭСХ, 21 - 22 мая 2014 года, сс. 98–103.
6. В.С. Захвалинский, Е.А. Пилюк, А.В. Симашкевич, Д.А. Шербан, Л.И. Брук, М.И. Русу, Н.Н. Курмей, В.В. Харченко. Кремниевые солнечные элементы с нанослоями карбида кремния. ТРУДЫ 9-й Международной научно-технической конференции «Энергообеспечение и энергосбережение в сельском хозяйстве», г. Москва, ГНУ ВИЭСХ, 21 - 22 мая 2014 года, сс. 104–108.
7. L. I. Bruc, M. Guc, M. Rusu, A. Siminel, L. Dermenji, N. Curmei, D. A. Sherban, A. V. Simashkevich and E. Arushanov. Annealing of kesterite thin films of Cu_2ZnSnS_4 obtained by spray pyrolysis in selenium atmosphere. Proceedings of **29th** European Photovoltaic Solar Energy Conference and Exhibition, Amsterdam, Holland, 22 - 26 September 2014. pp. 1823 - 1825, ISBN: 3-936338-34-5, D0I: 10.4229/EUPVSEC20142014-3DV.2.29
8. V. Zakhvalinskii, E. Piliuk, I. Goncharov, V. Rodriges, A.Simashkevich, D. Sherban, L. Bruc, N.Curmei, M. Rusu. Si_3N_4-nanolayers for metal-insulator-silicon solar cells. Proceedings of **29th** European Photovoltaic Solar Energy Conference and Exhibition, Amsterdam, Holland, 22 - 26 September 2014. pp. 851 - 854, ISBN: 3-936338-34-5, D0I: 10.4229/ EUPVSEC20142014-2AV.2.14
9. L. Dermenji, M. Guc, L.I. Bruc, Th. Dittrich, M. Rusu, K.G. Lisunov, N. Curmei, D.A. Sherban, A.V. Simashkevich, M.Ch. Lux-Steiner, E. Arushanov. Influence of the Annealing Process on Transport and Photoelectrical Properties of Cu_2ZnSnS_4 Kesterite Thin Films Obtained by Spray Pyrolysis. Proceedings of **29th** European Photovoltaic Solar Energy Conference and Exhibition, Amsterdam, Holland, 22 - 26 September 2014. pp. 1801 - 1804, ISBN: 3-936338-34-5, D0I: 10.4229/EUPVSEC20142014-3DV.2.15
10. V. Zakhvalinskii, E. Piliuk, I. Goncharov, A.V. Simashkevich, D.A. Sherban, L.I. Bruc, N. Curmei, M. Rusu. p-Si/n-SiC Nanolayer Photovoltaic Cell. Proceedings of **28th** European Photovoltaic Solar Energy Conference and Exhibition, Paris, France, 30 September - 04 October 2013. pp. 1317 – 1320, ISBN 3-936338-33-7 DOI: 10.4229/28thEUPVSEC2013-2BV.2.31
11. Guc, M.; Espindola-Rodriguez, M.; Bruc, L.I.; Lisunov, K.G.; Dermenji, L.; Curmei, N.; Sherban, D.A.; Simashkevich, A.V.; Saucedo, E.; Perez-Rodriguez, A.; Arushanov E.K. Transport properties of kesterite thin films of Cu_2ZnSnS_4 obtained by spray pyrolysis. Proceedings of **28th** European Photovoltaic Solar Energy Conference and Exhibition, Paris, France, 30 September - 04 October 2013, pp. 2449—2452. ISBN: 3-936338-33-7 Doi: 10.4229/28thEUPVSEC2013-3BV.6.55

- **Rapoarte la conferinţe ştiinţifice Internationale**

1. A. Simashkevich, L.Bruc, N. Curmei, D. Serban, A. Thogersen, A. Ulyashin. Towards low-cost processing of ITO/Si based solar cells: the role of ITO/Si interface. EMRS Spring, 2016, Lille, France, **T.P2.66**
2. V. Zakhvalinskii, E. Piliuk, I. Goncharov, A. Simashkevich, D. Sherban, L. Bruc, N. Curmei, M. Rusu. Silicon carbide nanolayers in photovoltaic structures based on silicon. Abstracts of 7th International Conference on Materials Science and Condensed Matter Physics, Chisinau, September 16-19, 2014, p.263.
3. V. Zakhvalinskii, E. Piliuk, I. Goncharov, V. Rodriges, A. Simashkevich, D. Sherban, L. Bruc, N. Curmei, M. Rusu. Silicon nitride nanolayers for MIS/IL solar cells. Abstracts of 7th International Conference on Materials Science and Condensed Matter Physics, Chisinau, September 16-19, 2014, p.264.
4. L. Dermenji, L. I. Bruc, M. Guc, A. Siminel, N. Curmei, D. A. Sherban, A. V. Simashkevich, E. Arushanov. The Cu_2ZnSnS_4 thin films annealed in selenium atmosphere. Abstracts of 7th International Conference on Materials Science and Condensed Matter Physics, Chisinau, September 16-19, 2014, p.266.
5. A. Simaschevici, D. Serban, L. Bruc, N. Curmei, V. Fedorov. Thin film solar cells based on A2B6 compounds with dielectric intermediate nanolayers. Abstracts of the 7th International

Conference on Materials Science and Condensed Matter Physics, Chisinau, September 16-19, 2014, p.269.

6. V. Zakhvalinskii, E. Piliuk, I. Goncharov, A. Simashkevich, D. Sherban, L. Bruc, N. Curmei, M. Rusu, V. Kharchenko. Silicon barrier structures with inversion layers. Abstracts of the 5th Conference of the Physicists of Moldova, Chisinau, 22-25 Octombrie, 2014, pp.52-54.

- **Brevete de invenţie obţinute**

1. Захвалинский В.С., RU, Пилюк Е.А., RU, Шербан Д. А, MD, Симашкевич А. В., MD, Брук Л. И., MD. **Патент на изобретение № 2532857 Фотовольтаическая структура**. ФЕДЕРАЛЬНАЯ СЛУЖБА ПО ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТИ РФ. Патентообладатель(ли): Белгородский государственный национальный исследовательский университет (RU), Институт Прикладной Физики Академии Наук Молдовы (MD) Заявка №2013113078. Приоритет 22 марта 2013 г. Зарегистрирован 12 сентября 2014г
2. ZAHVALINSKII Vasilii, RU; PILIUK Evghenii, RU; ŞERBAN Dormidont, MD; SIMAŞCHEVICI Alexei, MD; BRUC Leonid, MD. **BREVET DE INVENŢIE Nr.4339 Structură fotovoltaică cu o joncţiune.** Titular: INSTITUTUL DE FIZICĂ APLICATĂ AL ACADEMIEI DE ŞTIINŢE A MOLDOVEI, MD; NIU "BelGU", RU. Data depozit: 2013.10.03. Data publicării hotărârii de acordare a brevetului: 2015.03.31, BOPI nr. 3/2015
3. Захвалинский В. С. (RU), Пилюк Е. А. (RU), Гуни Родригес Веласкес (MX), Шербан Д. А. (MD), Симашкевич А. В. (MD), Брук Л. И. (MD). **Патент на изобретение № 2568421**. **Солнечный элемент на основе гетероструктуры смешанный аморфный и нанокристаллический нитрид кремния - кремний p-типа**. ФЕДЕРАЛЬНАЯ СЛУЖБА ПО ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТИ РФ. Патентообладатель(ли): Белгородский государственный национальный исследовательский университет (RU). Заявка № 2014130923/28. Приоритет 25.07.2014. Зарегистрирован 16 октября 2015 г..

- **Publicaţii de promovare sau popularizare a ştiinţei**

1. Serban, D.; Iliasenco, O. Academician Alexei V. Simashkevich – 85th jubilee, Mold. J. Phys. Sci. 2014, **13(1-2)**, pp. 5-7. ISSN 1810-648X.
2. Gaindric, C.; Dicusar, A.; Şerban, D.; Culiuc, L.; Paladi, G.; Ursu, A. Academicianul Alexei SIMAŞCHEVICI la 85 de ani, Akademos, 2014, **2(33)**, pp.176 - 177. ISSN 1857-0461.

OLGA ŞIKIMAKA, dr., conf.cerc.

Capitole în monografii şi culegeri internaţionale:

1. GRABCO, D.; SHIKIMAKA, O.; ELISA, M.; SAVA, B.; BOROICA, L.; HAREA, E.; PYRTSAC, C.; PRISACARU, A.; FERARU, I.; BARBOS, Z.; VREME, IA. Effect of Spin Coating Technique on Mechanical Properties of Silicophosphate Thin Film Doped by Neodymium. În: *IFMBE Proceedings. V. 55. Springer Science + Business Media, Singapore*, 2016. 3rd Internatiuonal Conference on Nanotechnologies and Biomedical Engineering. ICNBME-2015, September 23-26, 2015, Chisinau, Republic of Moldova, p. 89—92. Doi: 10.1007/978-981-287-736-9_21.

Articole în reviste ştiinţifice de profil recenzate:

2. SHIKIMAKA, O.; BURLACU, A.; GRABCO, D.; PARVAN, V.; PYRTSAC, C.; URSAKI, V. Mechanical properties and Raman scattering investigation under indentation of CdGa2S4 and CdGa2Se4. *J Phys D: Appl Phys*. 2016, 49(20), 205302-1—205302-10. Doi: 10.1088/0022-3727/49/20/205302
3. SHIKIMAKA, O.; GRABCO, D.; SAVA, B.A., ELISA, M.; BOROICA, L.; HAREA, E.; PYRTSAC, C.; PRISACARU, A.; BARBOS, Z. Densification Contribution as a Function of Strain Rate Under Indentation of Terbium-Doped Aluminophosphate Glass, *J Mater Sci*. 2016, 51(3), p. 1409-1417. Doi: 10.1007/s10853-015-9460-8

4. GRABCO, D.Z.; PYRTSAC, K.M.; SHIKIMAKA, O.A. Mechanical properties of polycrystalline copper and single-crystal LiF initial components for composite system Cu/LiF. *Surf Eng Appl Elect.* 2016, 52(3), 233—241. ISSN 1068-3755. doi 10.3103/S1068375516030066.
5. SHIKIMAKA, O.; PRISACARU, A.; BURLACU, A. Effect of Long-Term Holding Under Contact Loading on the Specific Features of Phase Changes in Silicon. *Mater Sci.* 2015, 51(3), 405—411. Doi: 10.1007/s11003-015-9855-3
6. GRABCO D.; SHIKIMAKA O.; M. ELISA M.; B. SAVA B.; BOROICA L.; HAREA E.; PYRTSAC C. PRISACARU A.; and DANITSA Z. Regularities of the Formation of the Microstructure of Phosphate Glasses Doped with Rare-Earth Elements. Moldavian Journal of the Physical Sciences, 2015, vol. 13, No. 3-4, p. 174-187.
7. PRISACARU A.; SHIKIMAKA O.; HAREA E.; BURLACU A.; ENACHI M.; and BRANISTE T. Nano- and Microscratching as a Potential Method for Texturing the Si Surface, Moldavian Journal of the Physical Sciences, Vol. 13, N3-4, 2014, p. 188-194.
8. GRABCO D.; SHIKIMAKA O.; ELISA M.; SAVA B.; BOROICA L.; HAREA E.; PYRTSAC C.; PRISACARU A.; and DANITSA Z. Regularities of the Formation of the Microstructure of Phosphate Glasses Doped With Rare-Earth Elements, Moldavian Journal of the Physical Sciences, Vol. 13, N3-4, 2014, p. 174-187.

Articole în culegeri:

9. GRABCO D.; PRISACARU A.; SHIKIMAKA O.; HAREA E.; PYRTSAC C.; BRANISHTE T.. Microstructuring of silicon crystal surface for solar cell application. Proceeding of the 8th International Conference "Microelectronics and Computer Science", October 22-25, 2014, Chisinau, Moldova, p. 117-120.
10. GRABCO, D.; PYRTSAC, C.; SHIKIMAKA, O. Deformation under nano/microindentation of LiF, MgO, Si monocrystals stipulated as support materials for Cu/substrate structures *Proceeding of* 2nd Intern. Conf. on Nanotechnologies and Biomedical Engineering, ICNBME-2013, Chisinau, Moldova, 2013, p. 102-106.

VLADIMIR ȚURCAN, dr. hab., conf. cerc.

2017

1).**V. Tsurkan**,S. Zherlitsyn,L. Prodan,V. Felea,P.T. Cong,Y. Skourski,Zhe Wang,J. Deisenhofer,H.-A. Krug von Nidda,J. Wosnitza,and A. Loidl, Ultra-robust high-field magnetization plateau and supersolidity in bond-frustrated $MnCr_2S_4$", SCIENCE ADVANCES 3: e1601982 (17 March 2017).

2). Á. Butykai, S. Bordács, I. Kézsmárki, **V. Tsurkan**, A. Loidl, J. Döring, E. Neuber, P. Milde, S.C. Kehr& L.M. Eng, Characteristics of ferroelectric-ferroelastic domains in Néel-type skyrmion host GaV4S8. SCIENTIFIC REPORTS**7**, 44663 (2017); doi: 0.1038/srep44663 (2017).

3). A. Biffin, Ch. Rüegg, J. Embs, T. Guidi, D. Cheptiakov, A. Loidl, **V. Tsurkan**, and R. Coldea, Magnetic Field Dependence of Excitations Near Spin-Orbital Quantum Criticality, PHYSICAL REVIEW LETTERS 118, 067205 (2017).

4). D.A. Prishchenko,A.A. Tsirlin, **V. Tsurkan**,A. Loidl, A. Jesche,and V.G. Mazurenko, Antiferroelectric instability in the kagomefrancisites Cu3Bi(SeO3)2 O2*X* (*X* = Cl, Br), PHYSICAL REVIEW B 95, 064102 (2017).

5). I. Efthimiopoulos,T. Lochbiler,**V. Tsurkan**, A. Loidl, V. Felea,and Y. Wang, Structural Behavior of ZnCr2S4 Spinel under Pressure, J. PHYS. CHEM. C 121, 769−777 (2017). DOI: 10.1021/acs.jpcc.6b11253

6). **V. Tsurkan**,L. Prodan,V. Felea,I. Filippova,V. Kravtsov,A. Günther,S. Widmann, H.-A. Krug von Nidda,J. Deisenhofer,and A. Loidl. Structure, magnetic susceptibility, and specific heat of the spin-orbital-liquid candidate FeSc2S4: Influence of Fe off-stoichiometry PHYSICAL REVIEW B 96, 054417 (2017)

7)S. Bordács, A. Butykai1, B. G. Szigeti, J. S. White, R. Cubitt, A. O. Leonov, S. Widmann , D. Ehlers, H.-A. Krug von Nidda, **V. Tsurkan**, A. Loidl& I. Kézsmárki. Equilibrium

SkyrmionLatticeGround State in a Polar Easy-plane Magnet. SCIENTIFIC REPORTS 7: 7584| DOI:10.1038/s41598-017-07996-x.
8)Á. Butykai,S. Bordács,L.F. Kiss,B.G. Szigeti, **V. Tsurkan**,A. Loidl,and I. Kézsmárki. Relaxation dynamics of modulated magnetic phases in the skyrmion host GaV4S8: An *ac* magnetic susceptibility study. PHYSICAL REVIEW B 96, 104430 (2017). DOI: 10.1103/PhysRevB.96.104430.

2016

1)S. Gao, O. Zaharko, **V. Tsurkan**, Y. Su, J.S. White, G. S. Tucker, B. Roessli, F. Bourdarot, R. Sibille, D. Chernyshov, T. Fennell, A. Loidl, and Ch. Rüegg, Spiral spin-liquid and the emergence of a vortex-like state in $MnSc_2S_4$, NATURE PHYSICS, Published online: 24 OCTOBER 2016 | DOI: 10.1038/NPHYS3914 IF: 18.791
2)Zhe Wang,**V. Tsurkan**,M. Schmidt,A. Loidl,and J. Deisenhofer, Tuning orbital-selective correlations in superconducting $Rb_{0.75}Fe_{1.6}Se_{2-z}S_z$, *PHYSICAL REVIEW* B 93, 104522 (2016). DOI: 10.1103/PhysRevB.93.104522. IF: 3.718
3)D. Ehlers,I. Stasinopoulos,**V. Tsurkan**,H.-A. Krug von Nidda,T. Feh´er,A. Leonov,I. K´ezsm´arki, D. Grundler,and A. Loidl,Skyrmion dynamics under uniaxial anisotropy*PHYSICAL REVIEW* B 94, 014406 (2016) DOI: 10.1103/PhysRevB.94.014406. IF: 3.718
4)I. Efthimiopoulos, Z.T.Y. Liu, M. Kucway, S.V. Khare, P. Sarin, **V. Tsurkan**, A. Loidl, and Y. Wang, Pressure-induced phase transitions in the $CdCr_2Se_4$ spinel,*PHYSICAL REVIEW* B 94, 174106 (2016) DOI: 10.1103/PhysRevB.94.174106. IF: 3.718
5)I. Efthimiopoulos, Z.T.Y. Liu, S.V. Khare, P. Sarin, **V. Tsurkan**, A. Loidl, D. Popov, and Y. Wang, Structural transition in the magnetoelectric $ZnCr_2Se_4$ spinel under pressure,*PHYSICAL REVIEW* B 93, 174103 (2016) DOI: 10.1103/PhysRevB.93.174103. IF: 3.718
6)Z. Seidov,H.-A. Krug von Nidda,**V. Tsurkan**, I.G. Filippova, A. Günther,T.P. Gavrilova,F. G. Vagizov, A.G. Kiiamov,L.R. Tagirov,and A. Loidl, Magnetic properties of the covalent chain antiferromagnet $RbFeSe_2$, PHYSICAL REVIEW B 94, 134414 (2016) DOI: 10.1103/PhysRevB.94.134414. IF: 3.718
7)J. Hlinka,F. Borodavka,I. Rafalovskyi,Z. Docekalova,J. Pokorny,I. Gregora,**V. Tsurkan**, H. Nakamura,F. Mayr, C. A. Kuntscher,A. Loidl,S. Bord´acs,D. Szaller,H.-J. Lee,J. H. Lee,and I. K´ezsm´arki, Lattice modes and the Jahn-Teller ferroelectric transition of GaV_4S_8,*PHYSICAL REVIEW* B 94, 060104(R) (2016) DOI: 10.1103/PhysRevB.94.060104. IF: 3.718

8) A. Zorko, M. Gomilšek, M. Pregelj, M. Ozerov, S. A. Zvyagin, A. Ozarowski, **V. Tsurkan**, A. Loidl, and O. Zaharko, Electron spin resonance insight into broadband absorption of the $Cu_3Bi(SeO_3)_2O_2Br$ metamagnet, *AIP ADVANCES*6, 056210 (2016); doi: 10.1063/1.4943534
9). S. Widmann, E. Ruff, A. Günther, H.-A. Krug von Nidda, P. Lunkenheimer**,** **V.Tsurkan**, S. Bordács, I. Kézsmárki& A. Loidl (2016): On the multiferroicskyrmion-host GaV_4S_8, *PHILOSOPHICAL MAGAZINE,* DOI: 10.1080/14786435.2016.1253885. IF: 1.632
10) G. Brandl, R. Georgii, S. R. Dunsiger, **V. Tsurkan**, A. Loidl, T. Adams, C. Pfleiderer, and P. Böni, Compact turnkey focussing neutron guide system for inelastic scatteringInvestigations, *APPLIED PHYSICS LETTERS*107, 253505 (2015); doi: 10.1063/1.4938503. IF: 3.142

2015

1) I. Kézsmárki, S. Bordács, P. Milde, E. Neuber, L. M. Eng, J. S. White, H. M. Rønnow, C. D. Dewhurst, M. Mochizuki, K. Yanai, H. Nakamura, D. Ehlers, **V. Tsurkan** and A. Loidl, "Néel-type skyrmion lattice with confined orientation in the polar magnetic semiconductor GaV_4S_8",*Nature Materials.* vol. 14, p. 1116-+ (2015) doi: 10.1038/nmat4402 (IF: 36,45).
2) N.J. Laurita, J. Deisenhofer, L. -D. Pan, C.M.Morris, M. Schmidt, M. Johnsson, **V.Tsurkan**, A.Loidl, N.P. Armitage, "Singlet-Triplet Excitations and Long-Range Entanglement in the Spin-Orbital Liquid Candidate $FeSc_2S_4$", *Physical Review Letters*vol.114, 207201-1—207201-5 (2015). ISSN 0031-9007. doi 10.1103/PhysRevLett.114.207201 (IF: 7,512).

3) Z.Wang, E. Ruff, M. Schmidt, **V. Tsurkan**, I. Kézsmárki, P. Lunkenheimer, and A. Loidl. Polar "Dynamics at the Jahn-Teller Transition in Ferroelectric GaV_4S_8", *Physical Review Letters*vol.115, 207601 (2015). DOI: 10.1103/PhysRevLett.115.207601 (IF: 7,512).
4)U.R. Singh, S.C. White, S. Schmaus, **V. Tsurkan,** A. Loidl, J. Deisenhofer, P. Wahl. "Evidence for orbital order and its relation to superconductivity in $FeSe_{0.4}Te_{0.6}$", *Science Advances* 2015. vol. 1, e1500206.
5) E. Ruff, S. Widmann, P. Lunkenheimer, **V. Tsurkan**, S. Bordács, I. Kézsmárki, A. Loidl"Multiferroicity and skyrmions carrying electric polarization in GaV_4S_8",*Science Advances* 2015. vol.1, e1500206.
6) I. Efthimiopoulos, Z.T.Y. Liu, S.V. Khare, P. Sarin, T. Lochbiler, **V. Tsurkan**, A. Loidl, D. Popov, and Y. Wang, "Pressure-induced transition in the multiferroic $CoCr_2O_4$ spinel", *Physical Review* B vol. 92, 064108 (2015). (IF: 3,736).
7) S. Zherlitsyn, **V.Tsurkan,** A.A. Zvyagin, S.Yasin, S. Erfanifam, R. Beyer, M. Naumann,; E. Green, J. Wosnitza, A. Loidl, "Novel phase transition and metastable regions in the frustrated magnet $CdCr_2O_4$", *Physical Review* B vol. 91, 060406-1—060406-4 (2015). ISSN 1098-0121. doi 10.1103/PhysRevB.91.060406 (IF: 3,736).
8) L. Mittelstadt, M. Schmidt, Z. Wang, F. Mayr, **V. Tsurkan,** P. Lunkenheimer, D. Ish, L. Balents, J.Deisenhofer, A. Loidl, "Spin-orbiton and quantum criticality in $FeSc_2S_4$", *Physical Review* B vol. 91, 125112-1—125112-6 (2015). ISSN 1098-0121. doi 10.1103/PhysRevB.91.125112 (IF: 3,736).
9) M. Pregelj, O. Zaharko, A. Zorko,; M. Gomilšek, O. Sendetskyi, A. Günther, M. Ozerov, S.A. Zvyagin, H. Luetkens, C.Baines, **V.Tsurkan**, A. Loidl, "Controllable Broadband Absorption in the Mixed Phase of Metamagnets", *Advansed Functional Materials*. 2015, vol. 25(24), 3634—3640. ISSN 1616-301X. doi 10.1002/adfm.201500702 (IF: 10,439).
10) G. Brandl, R. Georgii, S. R. Dunsiger, **V. Tsurkan**, A. Loidl, T. Adams, C. Pfleiderer, and P. Böni "Compact turnkey focussing neutron guide system for inelastic scattering investigations",*Applied Physics Letters*vol.107, 253505 (2015); doi: 10.1063/1.4938503

2014

1) S.I.Shylin; · V. Ksenofontov; S.A.Medvedev;**V. Tsurkan**; C. Felser"Phase separation in $Rb_xFe_{2-y}Se_2$ probed by non-stoichiometry and Cu doping",*Journal of Superconductivity and Novel Magnetism.* ISSN 1557-1939. DOI 10.1007/s10948-014-2912-6 (published online 16 December 2014)).
2)M. Enayat, Z. Sun, U.R. Singh, R. Aluru, S. Schmaus, A. Yaresko, Y. Liu, C. Lin, **V. Tsurkan**, A. Loidl, J. Deisenhofer, and P. Wahl "Real-space imaging of the atomic-scale magnetic structure of $Fe_{1+y}Te$",*Science*: 1251682. Published online 31 July 2014 [DOI:10.1126/science.1251682].
3) J. Bertinshaw, C.Ulrich, A.Guenther, F. Schrettle, M. Wohlauer, S. Krohns, M. Reehuis, A.J. Studer, M. Avdeev, D.V. Quach, J.R. Groza, **V. Tsurkan**, A. Loidl, and J. Deisenhofer "$FeCr_2S4$ in magnetic fields: possible evidence for a multiferroic ground state", *Scientific Reports* 2014, vol. 4, 06079. [DOI :10.1038/srep06079, ISSN:2045-2322].
4) Zhe Wang, M. Schmidt, J. Fischer, **V. Tsurkan**, M. Greger, D. Vollhardt, A. Loidl and J. Deisenhofer "Orbital-selective metal–insulator transition and gap formation above T_C in superconducting $Rb_{1-x}Fe_{2-y}Se_2$", Nature Communications 5:3202 [DOI: 10.1038/ncomms4202 |www.nature.com/naturecommunications 1 2014.

5) I. Efthimiopoulos, A. Yaresko, **V. Tsurkan**, J. Deisenhofer, A. Loidl, C. Park, and Y. Wang "Pressurizing the $HgCr_2Se_4$ spinel at room temperature",*Applied Physics Letters*104, 011911 (2014); doi: 10.1063/1.4861591.
6) K. Rabia, L. Baldassarre, J. Deisenhofer, **V. Tsurkan**, and C. A. Kuntscher,"Evolution of the optical properties of chromium spinels $CdCr_2O_4$, $HgCr_2S_4$, and $ZnCr_2Se_4$ under high pressure",*Physical Review* B vol. 89, 125107 (2014). DOI: 10.1103/PhysRevB.89.125107

2013

1) A.M.Vasiliev, L.A. Prozorova, L.E. Svistov,; V.Tsurkan,; V.Dziom,; A.Shuvaev,; Anna Pimenov,; A.Pimenov, ESR of the quasi-two-dimensional antiferromagnet $CuCrO_2$ with a triangular lattice. *Physical Review*B. 2013, 88, 144403-1—144403-8. ISSN 1098-0121. doi 10.1103/PhysRevB.88.144403 (IF: 3,767).

2) U.R.Singh, S.C. White, S. Schmaus, **V. Tsurkan**, A. Loidl, J. Deisenhofer, P. Wahl, "Spatial Inhomogeneity of the Superconducting Gap and Order Parameter in FeSe0.4Te0.6". *Physical Review*B. 2013, 88, 155124-1—155124-5. ISSN 1098-0121. doi 10.1103/PhysRevB.88.155124

3) **V. Tsurkan**, S. Zherlitsyn, S. Yasin, V. Felea, Y. Skourski, J. Deisenhofer, H.-A. Krug von Nidda, J. Wosnitza, and A. Loidl, "Unconventional Magnetostructural Transition in $CoCr_2O_4$ at High Magnetic Fields", *Physical Review Letters*, vol. 110, 115502 (2013).

4) F. Kretzschmar, B. Muschler, T. Böhm, A. Baum, R. Hackl, Hai-Hu Wen, **V. Tsurkan**, J. Deisenhofer, and A. Loidl, "Raman-Scattering Detection of Nearly Degenerate s-Wave and d-Wave Pairing Channels in Iron-Based $Ba_{0.6}K_{0.4}Fe_2As_2$ and $Rb_{0.8}Fe_{1.6}Se_2$ Superconductors", *Physical Review Letters*, vol. 110, 187002 (2013).

5) H.D. Zhou, Z.Y. Zhao, X.F. Sun, M. Nieto Suarez, B. Rivas-Murias, **V. Tsurkan**, J. Deisenhofer, V.S. Zapf, and F. Rivadulla, "Low-temperature spin excitations in frustrated $ZnCr_2O_4$ probed by high-field thermal conductivity", *Physical Review* B, vol. 87, 174436 (2013).

6) M. Schmidt, Zhe Wang, Ch. Kant, F. Mayr, S. Toth, A.T.M.N. Islam, B. Lake, **V. Tsurkan**, A. Loidl, and J. Deisenhofer, " Exciton-magnon transitions in the frustrated chromium antiferromagnets $CuCrO_2$, α-$CaCr_2O_4$, $CdCr_2O_4$, and $ZnCr_2O_4$", *Physical Review* B, vol. 87, 224424 (2013).

7) G.M. Kalvius, A. Krimmel, R. Wäeppling, O. Hartmann, F.J. Litterst, F.E. Wagner, **V. Tsurkan**, and A. Loidl, "Magnetism of the chromium thio-spinels $Fe_{1-x}Cu_xCr_2S_4$ studied using muon spin rotation and relaxation", *Journal of Physics.: Condensed Matter*, vol. 25, p. 186001 (12pp) (2013).

8) O. Hartmann, G.M. Kalvius, R. Wäppling, A. Günther, **V. Tsurkan**, A. Krimmel and A. Loidl, "Magnetic properties of the multiferroic chromium thio-spinels $CdCr_2S_4$ and $HgCr_2S_4$", *European Physical Journal* B, vol. 86, p. 148 (2013).

2012

1) Ch. Kant, M. Schmidt, Z. Wang, F. Mayr, **V. Tsurkan**, J. Deisenhofer, A. Loidl "Universal exchange-driven phonon splitting in antiferromagnets", *Physical ReviewLetters*, vol. 108, 177203-1-177203-5 (2012).

2)Y. Texier, J. Deisenhofer, **V. Tsurkan**, A. Loidl, D.S. Inosov, G. Friemel, J. Bobroff, "NMR study in the iron-selenide $Rb_{0.74}Fe_{1.6}Se_2$: Determination of the superconducting phase as iron vacancy-free $Rb_{0.3}Fe_2Se_2$", *Physical ReviewLetters*, vol. 108, 237002-1-237002-5. (2012).

3) V. Felea, S. Yasin, A. Gьnther, J. Deisenhofer, H.-A. Krug Von Nidda, S. Zherlitsyn, **V. Tsurkan**, P. Lemmens, J. Wosnitza, A. Loidl, "Spin-lattice coupling in the frustrated antiferromagnet $ZnCr_2Se_4$ probed by ultrasound", *Physical Review* B, vol. 86, 104420-1-104420-5 (2012).

4) G. Friemel, J.T. Park, T.A. Maier. V. Tsurkan, Y. Li, J. Deisenhofer, H.-A. Krug von Nidda, A. Loidl, A. Ivanov, B. Keimer, D.S. Inosov, "Reciprocal-space structure and dispersion of the magnetic resonant mode in the superconducting phase of $Rb_xFe_{2-y}Se_2$ single crystals", *Physical Review*B, vol. 85, 140511(R)-1-140511(R)-5. (2012).

5) A. Charnukha, A. Cvitkovic, T. Prokscha, D. Propper, N. Ocelic, A. Suter, Z. Salman, E. Morenzoni, J. Deisenhofer, **V. Tsurkan**, A. Loidl, B. Keimer, A.V.Boris. "Nanoscale layering of antiferromagnetic and superconducting phases in $Rb_2Fe_4Se_5$ single crystals", *Physical ReviewLetters*, vol. 109, 017003-1-017003-5 (2012).

6) V. Ksenofontov, S.A. Medvedev, L.M. Schoop, G. Wortmann, T. Palasyuk, **V. Tsurkan**, J. Deisenhofer, A. Loidl, C. Felser, "Superconductivity and magnetism in $Rb_{0.8}Fe_{1.6}Se_2$ under pressure", *Physical Review*B, vol. 85, 214519-1-214519-6 (2012).

7) M. Pregelj, O. Zaharko, A. Gьnther, A. Loidl, **V. Tsurkan**, S. Guerrero, "Magnetic ground state and two-dimensional behavior in pseudo-kagome layered system $Cu_3Bi(SeO_3)_2O_2Br$", *Physical Review*B, vol. 86, 144409-1-144409-7 (2012).
8) A. Charnukha, J. Deisenhofer, D. Proepper, M. Schmidt, Z. Wang, Y. Goncharov, A.N. Yaresko, **V. Tsurkan**, B. Keimer, A. Loidl, A.V. Boris, "Optical conductivity of superconducting $Rb_2Fe_4Se_5$ single crystals", *Physical Review* B, vol. 85, 100504(R) (2012).
9) D. Ehlers, **V. Tsurkan**, H.-A. Krug Von Nidda, A. Loidl, "Intrinsic anomalous magnetic anisotropy of $CdCr_2S_4$", *Physical Review* B, vol. 86, 174423-6 (2012).
10) Zhe Wang, M. Schmidt, Y. Goncharov, **V. Tsurkan**, H.-A.Krug von Nidda, A. Loidl, J. Deisenhofer, "Terahertz spectroscopy in the pseudo-Kagome system $Cu_3Bi(SeO_3)_2O_2Br$", *Physical Review* B, vol. 86, 174411-4 (2012).
11) E.-W. Scheidt, V.R. Hathwar, D. Schmitz, A. Dunbar, W. Scherer, F. Mayr, **V. Tsurkan**, J. Deisenhofer, A. Loidl, "Superconductivity at Tc=44K in $Li_xFe_2Se_2(NH_3)_y$". *European Physical Journal* B, vol. 85, p. 279-1-279-5 (2012).
12) A. Ruff, S. Krohns, F. Schrettle, **V. Tsurkan**, P. Lunkenheimer, A. Loidl, "Absence of polar order in $LuFe_2O_4$"*European Physical Journal* B, vol. 85, p. 290 (2012).
13) G.E. Grechnev, A.S. Panfilov, A.V. Fedorchenko, V.A. Desnenko, S.L. Gnatchenko, **V. Tsurkan**, J.Deisenhofer, A. Loidl, D.A. Chareev, O.S. Volkova, A.N. Vasiliev, "Magnetic properties of novel FeSe(Te) superconductors", *Journal of Magnetism and Magnetic Materials*, vol. 324, p. 3460-3463 (2012).