

# Referate științifice prezentate la conferințe internaționale și naționale

## 2012

1. GHIMPU, L.; TIGINYANU, I.; URSAKI, V.; LUPAN, O.; CHOW, L. ; RUDZEVICH, Y.; LIN, Y. **Optical and sensory properties of zno nanofibrous membranes grown by magnetron sputtering.** *CAS-2012 The 2012 International Semiconductor Conference (CAS 2012)*, October 15-17, 2012, Sinaia, Romania. Vol. 1, pp. 1-4.
2. LUPAN, Oleg; CHOW Lee; TIGINYANU Ion; ȘONTEA Victor; PAUPORTE Thierry. **The effect of surface functionalization and doping on nanowire devices performances,** *Proceedings of the 4th International Conference "Telecommunications, Electronics and Informatics" ICTEI 2012*, May 17-20 2012, Volume I, pp. ISBN 978-9975-45-082-9.
3. LUPAN, Oleg; SONTEA, Victor; CREȚU, Vasiliu; RAILEAN, Serghei; TROFIM, Viorel **Zinc Oxide Nanostructures – Current Status.** *Proceedings of the XXXII International Scientific Conference ELNANO 2012*, 2012 April 10-12, Kyiv, pp.8-9. УДК 621.38:620.3(063).
4. RUSU, Aurel; ȘIȘIANU, Sergiu; VERJBIȚKI, Valeriu; MACHEDON, Alexandru; ȘIȘIANU, Teodor. **Dispozitiv electronic multi-canal pentru monitorizarea ecologică.** *Proceedings of the 4th International Conference "Telecommunications, Electronics and Informatics" ICTEI 2012*, May 17-20 2012, Volume I, pp. 254-258. ISBN 978-9975-45-082-9.
5. SHISHIYANU, S.; ZARRELLI, M.; STRATAN, Gh.; VARTIC, V.; GIORDANO, M.; SHISHIYANU, T. **The impact of photothermal processing on TiO<sub>2</sub> thin films properties.** *Proceedings of the 4th International Conference "Telecommunications, Electronics and Informatics" ICTEI 2012*, May 17-20 2012, Volume I, pp. 63-67. ISBN 978-9975-45-082-9.
6. SONTEA, V.; IAVORSCHI A.; PIRTAC, V.; PAHOMI, V.; ANGHILOGLU, D. **Complex Device for Recording and Signal Processing of Cardiac Activity.** *Proceedings of tge XXXII International Scientific Conference ELNANO 2012*, April 10-12 2012, Kyiv, pag. 160-161. УДК 621.38:620.3(063).
7. ȘONTEA, Victor; IAVORSCHI, Anatolie; PÎRȚAC, Valeriu; PAHOMI, Valeriu; ANGHILOGLU, Dmitrii. **Dispozitiv complex de înregistrare și prelucrare a semnalelor activității cardiace.** *Proceedings of the 4th International Conference "Telecommunications, Electronics and Informatics" ICTEI 2012*, May 17-20 2012, Volume II, pp. 346-350. ISBN 978-9975-45-201-4.

## 2011

1. BELIC, O.; ARAMĂ, E.; ȘTEFANEȚ, M.; IAVORSCHI, A.; PÎRȚAC, V.; BABUCI, A. **Device for testing of biological material.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011)*, Chisinau, Moldova, July 7-8, 2011, pp.301-303. ISBN 978-9975-66-239-0
2. BEROV, M.; SHISHIYANU, S.; SHISHIYANU, T.; GUEORGUIEV, V. **Area distribution of dark diode leakage currents in a-Si:H solar cell panel.** *Proceedings of the 7<sup>th</sup> International Conference on "Microelectronics and Computer Science" (ICMCS-2011)*, Chisinau, Moldova, September 22-24, 2011, pp.23-26. ISBN 978-9975-45-174-1

3. GANGAN, S.; TROFIM, V. **Contributions to the development of acid battery charging regulator from photovoltaic panels with MPPT function.** *Proceedings of the 7<sup>th</sup> International Conference on "Microelectronics and Computer Science" (ICMCS-2011)*, Chisinau, Moldova, September 22-24, 2011, pp.81-83. ISBN 978-9975-45-174-1
4. GHIMPU, L.; LUPAN, O.; POPESCU, L.; TIGINYANU, I. **Nanoporous zinc oxide films prepared by magnetron sputtering.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011)*, Chisinau, Moldova, July 7-8, 2011, pp.138-141. ISBN 978-9975-66-239-0
5. GHIMPU, L.; LUPAN, O.; POPESCU, S.; URSAKI, V.; TIGINYANU, I.; CHOW, L.; CHAI, G.; PARK, S.; SCHULTE, A. **Nanofibrous zinc oxide films synthesized by magnetron sputtering.** *Proceedings of the 2011 International Semiconductor Conference (CAS 2011)*, October 17-19, 2011, Sinaia, Romania. Vol. 2, pp. pp221-224. ISBN 978-1-61284-172-4
6. IAVORSCHI, A.; PAHOMI, V.; PIRTAC, V.; ANGHILOGLU, D.; RAILEAN, S.; BRAGARENCO, A.; SCRIPNIC, V. **Information system analysis of heart rate variability.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011)*, Chisinau, Moldova, July 7-8, 2011, pp.445-447. ISBN 978-9975-66-239-0
7. LUPAN O., CHOW L., PAUपोर्टÉ T. **Zinc Oxide Nanostructures: New Properties for Advanced Applications.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011), German-Moldovan Workshop on Novel Nanomaterials for Electronic, Photonic and Biomedical Applications*, Moldova, 7-8<sup>th</sup> July, 2011, vol.1, p.29-32. ISBN 978-9975-66-239-0. (Lucrare Invitată)
8. LUPAN, O. **ZnO Growth Technologies: Current Status and Perspectives.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011)*, Chişinău, Republic of Moldova, 7-8<sup>th</sup> July, 2011, vol.1, p.53-58. Lucrare Invitată. ISBN 978-9975-66-239-0.
9. LUPAN, O.; CHOW, L. ; RUDZEVICH, Y.;SONTEA,V. ; et al. **Rapid hydrothermal synthesis of zinc oxide nanorods on single crystal sapphire substrate.** *Proceedings of the 2011 International Semiconductor Conference (CAS 2011)*, October 17-19, 2011, Sinaia, Romania. Vol. 2, pp. 241-244. ISBN 978-1-61284-172-4
10. LUPAN, O.; CHOW, L.; RAILEAN, S.; SONTEA, V.; POCAZNOI, I. **Magnesium and Cadmium-alloyed Zinc Oxide Nanowires for Device Applications.** *Proceedings of the 7<sup>th</sup> International Conference on "Microelectronics and Computer Science" (ICMCS-2011)*, Chisinau, Moldova, September 22-24, 2011, pp.467-470, 2011. ISBN 978-9975-45-174-1
11. LUPAN, O.; PAUपोर्टÉ, T.; VIANA, B. **ZnO-based Nanowires for hybrid low-voltage LED.** *Proceedings of the European Conference on Lasers and Electro-Optics and the XIIth European Quantum Electronics Conference (CLEO®/Europe-EQEC)*, Munich, Germany, 22-26 mai 2011. Print ISBN: 978-1-4577-0533-5. doi: 10.1109/CLEOE.2011.5942783.
12. MIRONOV, B. **The general solution of the problem of medium-carrier for the electromagnetic waves.** *Proceedings of the 2nd International Conference Asia-Europe Physics Summit*. Wroclaw, Poland, October 26-29, 2011, <http://www.aseps.net/>.
13. MIRONOV, B. **The Undular Model as Basis for Long-Range Ordered Structures.** *Proceedings of the 7<sup>th</sup> International Conference on Microelectronics and Computer*

Science, Chişinău, Republic of Moldova, September 22-24, 2011, p. 55-58. ISBN 978-9975-45-174-1.

14. MIRONOV, B. **Wave Model as a Physical Basis of an Algebra of Bio- and Nano-structures.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering*, Chişinău, Republic of Moldova, 7-8 th of July, 2011, p. 221-226. ISBN 978-9975-66-239-0.
15. ROSCA, A. **The advantages of the digital radio diagnostic devices implementation in m. Chisinau (Republic of Moldova) in 2009-2011 (first quarter).** *Proceedings of the 7<sup>th</sup> International Conference on "Microelectronics and Computer Science" (ICMCS-2011)*, Chisinau, Moldova, September 22-24, 2011 pp.304-306, 2011. ISBN 978-9975-45-174-1
16. ROSCA, A. **The implementation of modern digital technology in x-ray medical diagnoses in Republic of Moldova a stringent necessity.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011)*, Chisinau, Moldova, July 7-8, 2011, pp.279-280. ISBN 978-9975-66-239-0
17. RUDZEVICH, Y., LIN, Y., EVANS, G., ORDONEZ, A., LUPAN, O., CHOW, L. **Periodic Signals From a Nanopore Coulter Counter.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering*, Chişinău, Republic of Moldova, 7-8th July, 2011, vol.1, p.186-189. ISBN 978-9975-66-239-0.
18. SAINSUS, Iu.; RAILEAN, S.; ROTARU, A.; CONEV, A.; RUSSEV, Iu.; POSTORONCA, S.; SCERBII, D. **Millimeter wave nonthermal therapeutic device based on parallel-strip technology.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011)*, Chisinau, Moldova, July 7-8, 2011, pp.313-316. ISBN 978-9975-66-239-0
19. SCRIPNIC, V.; ŞONTEA, V.; ZATUŞEVSKI, I.; SAULEA, A.; ZEMŢOVSKI, E.; IAVORSCHI, A.; PÎRŢAC, V.; SOCOLOV, V.; ALEXEEVA, N. **New investigation technologies of the cardiovascular system and of the vegetative nervous system.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011)*, Chisinau, Moldova, July 7-8, 2011, pp.310-312. ISBN 978-9975-66-239-0
20. SCRIPNIC, V.; ZEMTSOVSKY, E.; SAULEA, A.; SONTEA, V.; MINCIUNA, V.; DEAC, A.; VASILIEV, N. **Issues of classification, terminology and criteria for diagnosis of arrhythmia.** *Proceeding of 2011 E-Health and Bioengineering Conference*, Romania, Iasi, 2011, pp. 81-84, ISBN 978-606-544-078-4
21. SLOBOZEANU, A.; ZATUŞEVSKI, I.; CREŢU, A.; ŞONTEA, V. **Advanced potential of the photolpetismograph ppg-2 in the non-invasive vascular diagnosis.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011)*, Chisinau, Moldova, July 7-8, 2011, pp.304-306. ISBN 978-9975-66-239-0
22. ŞONTEA, V.; IAVORSCHI, A.; PAHOMI, V.; PÎRŢAC, V.; ANGHILOGLU, D.; RAILEAN, S. **Complex device for recording and signal processing of cardiac activity.** *Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011)*, Chisinau, Moldova, July 7-8, 2011, pp.307-309. ISBN 978-9975-66-239-0
23. ŞONTEA, V.; IAVORSCHI, A.; PAHOMI, V.; PÎRŢAC, V.; ANGHILOGLU, D. **Sistem de înregistrare şi prelucrare a semnalelor ECG şi FPG pentru analiza Variabilităţii Ritmului Cardiac.** *Proceedings of the 7th International Conference on*

“Microelectronics and Computer Science” (ICMCS-2011), Chisinau, Moldova, September 304-306, 2011, pp.389-392. ISBN 978-9975-45-174-1

24. SONTEA, V.; STRATULAT, P.; WERLEIN, R. **Health technology management.** Proceedings of the International Conference on Nanotechnologies and Biomedical Engineering (ICNBME-2011), Chisinau, Moldova, July 7-8, 2011, pp.248-251. ISBN 978-9975-66-239-0
25. TROCIN, CATERINA; BRAGARENCO, ANDREI; SONTEA, VICTOR **Expert system for Medical Diagnosis.** Fuzzy Logic. *Proceedings IIS - International Workshop on Intelligent Information Systems*, Institutul de matematică și Informatică, Chisinau, Moldova, 13-14 Septembrie 2011, pp. 207-210. ISBN 978-9975-4237-0-0

## 2010

26. ARMENCEA, N.; ȘONTEA, V. **Analiza amplitudinii fotopletismogramelor și variabilității ritmului cardiac pentru aprecierea stării sistemului cardiorespirator.** *In: The 3 International Conference on Telecommunications, Electronics and Informatics.* May 20-23, 2010, 285-290, ISBN 978-9975-45-136-9.
27. ARMENCEA, N.; ȘONTEA, V.; IAVORSCHI, A.; PAHOMI, V.; PÎRȚAC, V.; ZATUȘEVȘCHII, I. **Dispozitiv pentru analiza variabilității ritmului cardiac.** *In: The 3rd International Conference on Telecommunications, Electronics and Informatics May 20-23, 2010,* Chișinău 2010, II, p.291-296. ISBN 978-9975-45-082-9.
28. LUPAN, O.; TIGINYANU, I.; URSAKI, V. and CHOW, L. **Doping Effects on Optical Properties of Low Temperature Grown, ZnO Nanorod Arrays,** *In: NSTI-NanoTech-2010 Nanotechnology Conference, NSTI,* May 3-7, 2009, Houston, Texas, U.S.A., Technical Proceedings, ISBN978-1-3402-2, Vol.2, 2010, pp.153-156.
29. SHISHIYANU, S.; GUEORGUIEV, V.; SHISHIYANU, T. **DLC biocompatible nanostructures for cardio implantable devices.** *In: Proc. of 3rd International Conference Telecommunications, Electronics and Informatics,* Chisinau, Moldova, Vol.1, 2010, pp.281-284.
30. ȘONTEA, V.; ARMENCEA, N.; IAVORSCHI, A.; PAHOMI, V.; PÎRȚAC, V. **Sistemul informațional pentru analiza variabilității ritmului cardiac.** *In: The 3rd International Conference on Telecommunications, Electronics and Informatics, May 20-23, 2010,* Chișinău 2010, II, p.365-370 ISBN 978-9975-45-082-9.
31. ȘONTEA, V.; STRATULAT, P. **Managementul tehnologiilor medicale.** *In: The 3<sup>rd</sup> International Conference on Telecommunications, Electronics and Informatics May 20-23, 2010,* Chișinău 2010, II, p.371-376. ISBN 978-9975-45-082-9.
32. ŽIVKOVIĆ, LJ.; LAIR, V.; LUPAN, O.; RINGUEDÉ, A. **Properties of Ceria Films Grown on Stainless Steel by Electrodeposition Method, Physical Chemistry.** *In: 2010 10th International Conference on Fundamental and Applied Aspects of Physical Chemistry, Proceedings,* Vol.II, 21-24 September 2010, Belgrade, Serbia, ISBN 978-86-82475—18-7 pp.414-416.
33. LUPAN, O.; ČEROVIĆ, L.; ȘONTEA, V.; CREȚU, V.; RAILEAN, S.; TROFIM, V.; POCAZNOI, I. **Nanostructured zinc oxide films grown by chemical bath deposition for sensing applications.** (Invited Presentation), *In: ICTEI-2008, 3rd International Conference “Telecommunications, Electronics & Informatics”,* May 22-23, 2010, Chisinau, Technical Proceedings vol.1, p.274-277.



## 2009

34. ARMENCEA, N.; ŞONTEA, V.; IAVORSCHI, A.; PAHOMI, V.; PÎRŢAC, V. **Elaborarea Aparatului pentru Analiza Variabilităţii Ritmului Cardiac.** In: *Proceedings of the 6th International Conference on „Microelectronics and Computer Science”*, October 1-3, 2009, p.254-256
35. BRAGARENCO, A.; RITTMAN, D.; SONTEA, V. **Proiectarea Circuitelor Integrate Asistată De Verificarea în Timp Real.** In: *Proceedings of the 6th International Conference on „Microelectronics and Computer Science”*, October 1-3, 2009, p.386-389.
36. CHAI, G.; RUSU, E.; CHOW, L.; STRATAN, G.; HEINRICH, H.; PARK, S.; SCHULTE, A.; LUPAN, O.; TROFIM, V. and RAILEAN, S. **Microsensor on single ZnO microwire,** In: *The 2009 International Semiconductor Conference (CAS 2009)*, October 12-14, 2009, Sinaia, Romania, vol. 2. pp LUPAN, O. **Individual ZnO nanorod based sensors** (Oral Presentation), In: *Conferința Științifică a Colaboratorilor, Doctoranzilor și Studenților ai UTM*, Noiembrie 15-17, 2008, Chisinau, Moldova. P. 1-4
37. LUPAN, O. **The synthesis and selective gas sensing characteristics of ZnO and Cu<sub>2</sub>O nanostructures** (Oral Presentation), In: *Conferința Științifică a Colaboratorilor, Doctoranzilor și Studenților ai UTM*, Noiembrie 15-17, 2008, Chisinau, Moldova. P. 1-2
38. SISIANU, T.; LUPAN, O.; RAILEAN, S.; VERJBITSCHI, V.; LESNIC, A. **Fabricarea și studiul structurilor senzoriale pe baza de ZnO și Si poros.** In: *Conferința Științifică a Colaboratorilor, Doctoranzilor și Studenților ai UTM*, Moldova, Noiembrie 15-17, 2008. Sisianu,
39. SISIANU, T.; SISIANU, S.; LUPAN, O.; RAILEAN, S.; VERJBITSCHI, V.; GONDOBESCU, A.; MATIDONSCII, S. **Sinteza și caracterizarea proprietăților senzoriale ale structurilor ZnO/SiO<sub>2</sub>/Si și Cu<sub>2</sub>O/SiO<sub>2</sub>/Si.** In: *Conferința Științifică a Colaboratorilor, Doctoranzilor și Studenților ai UTM*, Moldova, Noiembrie 15-17, 2008.
40. .287-290.
41. LUPAN, O.; CHOW, L.; CHAI, G.; TROFIM, V. **Selective Multiterminal Sensor on Individual ZnO Nanotetrapod,** (Oral Presentation), In: *2009 NSTI Nanotechnology Conference and Trade Show*, May 3-7, 2009, Houston, Texas, U.S.A., Technical Proceedings of the 2009 Nanotechnology Conference, ISBN978-1-4398-1782-7, Vol.1, 2009, pp.227-230.
42. MIRONOV, B. **Application of Undular Analysis for Description of the Physical Phenomena.** In: *Proceedings of the 6th International Conference on „Microelectronics and Computer Science”*, October 1-3, 2009, p.57-50
43. RUSU, A.; ŞIŞIANU, S. **Software web pentru monitorizarea de la distanță a analizatorului de gaze.** In: *Proceedings of the 6th International Conference on „Microelectronics and Computer Science”*, October 1-3, 2009, p.423-426
44. SHISHIYANU, S.; GUEORGUIEV, V.; YILMAZ, E.; TURAN, R.; SHISHIYANU, T. **Effects of  $\gamma$  – irradiation on ZrO<sub>2</sub> properties.** In: *Proc. of VI International Conference on Microelectronics and Computer Science, ICMCS-2009*, Moldova, 2009, Vol.1, pp.115-117.
45. SHISHIYANU, S.; MOGADDAM, N.; YILMAZ, E.; TURAN, R. **Effect of Gamma Radiation on Raman Spectra of Ge Nanocrystals embedded in SiO<sub>2</sub>.** In: *Proceedings of 5th Nanoscience and Nanotechnology Conference NanoTR5*, Eskişehir, Turkey, June 08-12, 2009, pp.67-69.

46. ȘIȘIANU, S. **Mecanismul și rolul factorului cuantic în procesul de difuzie stimulată de fotoni a Zn în GaAs și InP.** In: *Proc. of VI International Conference on Microelectronics and Computer Science, ICMCS-2009*, Moldova, 2009, Vol.2, pp.521-524.
47. ȘONTEA, V.; ARMENCEA, N.; ANGHIOGLU, D.; IAVORSCHI, A.; PAHOMI, V. **Sistemul Informațional al Dispozitivului Fotopletismograf FPG-2.** In: *Proceedings of the 6th International Conference on „Microelectronics and Computer Science”*, October 1-3, 2009, p.245-249
48. TROFIM, V.; BOTNARU, A. **Dispozitiv de cercetare automatizată a elementelor solare.** In: *Proceeding 6th International Conference on „Microelectronics and Computer Science”*, Chisinau 2009, P.257-260
49. SHISHIYANU, S.; MOGADDAM, N.; YILMAZ, E.; TURAN, R. **Effect of Gamma Radiation on Raman Spectra of Ge Nanocrystals embedded in SiO<sub>2</sub>.** In: *Proceedings of 5th Nanoscience and Nanotechnology Conference NanoTR5*, Eskişehir, Turkey, June 08-12, 2009, pp.67-69.
50. ROȘCA, A.; GRĂJIERU, L.; COREȚCHII, L. **Asigurarea radioprotecției în activitatea cu dispozitive radiologice moral și fizic depășite la etapa actuală - un imperativ al timpului.** În: *Materialele conferinței naționale (jubiliară) cu participare internațională. Probleme actuale în igiena radiațiilor, radioprotecției și radiologie.* Chișinău 2009. L.S.F.E.-P. "Tipografia Centrală" 2009, p.106-113.
51. ARMENCEA, N.; ȘONTEA, V. **Analysis methods and devices of the pulsation wave of variations of the heart beat.** In: *Rezumatele Conferinței Fizicienilor din Moldova, CFM – 2009*, Chișinău, R.Moldova, 26 – 27 noiembrie 2009, p.20
52. CANȚER, V.; ȘIȘIANU, S.; ȘIȘIANU, T. **De la Electronica de “IERI” la Microelectronica de “AZI” spre Nanoelectronica “DE MÎINE”, (50 ani de la invenția Circuitelor Integrate),** In: *Conferința Fizicienilor din Moldova CFM 2009*, Chișinău, Moldova, 2009, p.13.
53. SHISHIYANU, S. **The role of light quantum energy in rapid photothermal diffusion of P in Si for solar cells application.** In: *Conferința Fizicienilor din Moldova, CFM-2009*, Noiembrie 2009, Chișinău, Moldova, Abstracts, 2009, p.104.
54. ЗИНЬКОВСКИЙ, В.; ШОНТЯ, В. **Особенности пайки микропроводов без использования контактных площадок.** In: *Rezumatele Conferinței Fizicienilor din Moldova, CFM – 2009*, Chișinău, R.Moldova, 26 – 27 noiembrie 2009, p. 142
55. МИРОНОВ, Б. **Решение задачи о среде-носителе волн, соответствующей уравнениям Максвелла.** In: *Rezumatele Conferinței Fizicienilor din Moldova, CFM – 2009*, Chișinău, R.Moldova, 26 – 27 noiembrie 2009, p.153

## 2008

56. ARMENCEA, N.; ȘONTEA, V.; IAVORSCHI, A.; ANGHIOGLU, D.; CREȚU, A. **Identificarea parametrilor cantitativi a fotopletismogramelor.** In: *Proceedings of The 2 nd International Conference Telecommunications, Electronics and Informatics”*, Chisinau, 15-18 may 2008. V I pp 159-164.
57. FLITSIYAN, E.; SWARTZ, C.; PEALE, R.; LUPAN, O.; CHERNYAK, L.; CHOW, L.; VERNETSON, W. **Superior neutron-irradiation hardness for solution-grown ZnO nanocrystals,** (Oral Presentation), In: *MRS Conference*, December 1 - 5, Boston, MA, 2008 USA. p.1-6.

58. GALAMAGA, V.; METLINSCHI, P. **Instalație solară pentru iluminare și încălzirea telefoanelor mobile.** *In: 2nd International conference „Telecommunication, Electronics and Informatics” ICTEI 2008, Chișinău 2008*
59. LUPAN, O.; CHAI, G.; CHOW, L. **Fabrication and Characterizations of Ultra Violet Photosensor Based on Single ZnO Nanorod,** (Oral Presentation), *In: 2008 NSTI Nanotechnology Conference and Trade Show, June 1-5, 2008, Boston, Massachusetts, U.S.A., Technical Proceedings of the 2008 Nanotechnology Conference and Trade Show, ISBN 978-1-4200-8505-1, Volume 3, pp.5-8.*
60. LUPAN, O.; CHOW, L. **Self-assembly of ZnO and Cu<sub>2</sub>O nanoarchitectures for nanodevices fabrication,** (Poster Presentation), *In: ICTEI-2008, 2nd International Conference “Telecommunications, Electronics and Informatics”, May 15-18, 2008, Chisinau, Technical Proceedings vol.1, pp.83-88.*
61. LUPAN, O.; CHOW, L.; CHAI, G.; PARK, S.; SCHULTE, A. **Electric Field Assisted Assembly of Perpendicular Oriented ZnO Nanorods on Si Substrate,** (Oral Presentation), *In: 2008 NSTI Nanotechnology Conference and Trade Show, June 1-5, 2008, Boston, Massachusetts, U.S.A., Technical Proceedings of the 2008 Nanotechnology Conference and Trade Show, ISBN 978-1-4200-8503-7, Vol 1, pp: 567 – 570.*
62. LUPAN, O.; CHOW, L.; CHAI, G.; SCHULTE, A.; PARK, S.; HEINRICH, H.; ȘONTEA, V.; TROFIM, V.; RAILEAN, S. **Investigation of tin oxide nanobelts/nanoribbons prepared by chemical deposition technology,** *In: The 2008 International Semiconductor Conference, October 13-15, 2008, Sinaia, Romania, vol. 2. pp.287-290.*
63. LUPAN, O.; CHOW, L.; ȘONTEA V.; CHERNYAK, L.; RAILEAN, S. **Self-assembly ZnO nanostructures for nanoscale devices applications,** (Oral Presentation), *In: 9th International Conference on Applied and Theoretical Electricity (ICATE 2008), October 8-10, 2008, Craiova, Romania. p.1-4..*
64. LUPAN, O.; CHOW, L.; ȘONTEA V.; RAILEAN, S. **Self-Assembly Metal-Semiconductor Zn-ZnO Core-Shell Microspheres from nanorods,** (Poster Presentation), *In: MSCMP 2008 International Conference on Materials Science and Condensed Matter Physics. September 23-26, 2008, Chisinau p.1.*
65. LUPAN, O.; ȘIȘIANU, S.; ȘIȘIANU, T.; ȘONTEA V.; RAILEAN, S. **Fabrication and characterization of nanocrystalline ZnO/Si heterojunctions for photovoltaic applications,** (Oral Presentation), *In: ICTEI-2008, 2nd International Conference “Telecommunications, Electronics and Informatics”, May 15-18, 2008, Chisinau, Moldova, Technical Proceedings vol.1. pp. 53-58.*
66. RUSU A.; SHISHIYANU, S.; LUPAN, O.; BRAGUTA, V.; BRAGUTA, O.; SOLOGUB, R.; SHISHIYANU, T. **Software for gas analyzer device,** (Oral Presentation), *In: International Conference BIT+, April 15-17, 2008, Chisinau, Moldova. p.1-3..*
67. SHISHIYANU, S.; LUPAN, O.; BRAGUTA, V.; RUSU, A.; SOLOGUB, R.; SHISHIYANU, T. **Sn-doped ZnO thin films as NO<sub>2</sub> gas sensor.** *In: Proceedings of 8th International Conference Informational Technologies Bit+2008, Chișinău, Moldova, April 2008, pp.95-97.*
68. SHISHIYANU, T.; POCAZNOI, I.; SONTEA, V.; RAILEAN, S.; RUSANOVSKI, V.; MELNIC, T.; SHISHIYANU, S.; LUPAN, O. **Advanced technologies, reliability and ionizing irradiation of integrated circuits components,** (Oral Presentation), *In: ICTEI-2008, 2nd International Conference “Telecommunications, Electronics*

*andInformatics*”, May 15-18, 2008, Chisinau, Moldova, Technical Proceedings, pp.125-130

69. ŞONTEA, V.; ARMENCEA, N.; ANGHIOGLU, D.; BRAGARENCO, A.; IAVORSCHI, A.; PAHOMI, V. **Sistem de înregistrare și prelucrare a fotopletismogramelor**. In: *Proceedings of The 1 st International Conference Radio electronics,informatics,tehnology*, Chisinau, 15-16 october 2008. . pp 178-183.
70. ŞONTEA, V.; ARMENCEA, N.; BRAGARENCO, A.; IAVORSCHI, A.; PAHOMI, V.; ZATUŞEVŞCHII, I. **Didpozitiv de înregistrare și prelucrare a fotopletismogramelor FPG-1**. In: *Proceedings of The 2 nd International Conference Telecommunications, Electronics andInformatics*”, Chisinau, 15-18 may 2008. V I pp 165-168.
71. TROFIM, V.; DOROGAN, A.; STAMOV, I.; SÎRBU, N. **Polarization-selective devices for fiber optic communication system**. In: *2nd International conference „Telecommunications, Electronics andInformatics” ICTEI 2008*, V.2., P. 49-52
72. TROFIM, V.; GALAMAGA, V.; METLINSCHI, P. **Instalație solară pentru iluminare și încărcarea telefoanelor mobile**. In: *2nd International Conference „Telecommunication, Electronics andInformatics” ICTEI 2008*, N2, P. 203-205
73. LUPAN, O.; SHISHIYANU, S.; SHISHIYANU, T.; ŞONTEA, V.; RAILEAN, S. **Nanostructured metal oxide by chemical deposition for CO<sub>2</sub> gas sensor applications**. In: *Conferinta Fizicienilor din Moldova CFM-2007*, 11– 12 Octombrie 2007, Rezumate, Abstracts, p.111.
74. LUPAN, O. **Fabrication and characterization of CdS thin films by improved chemical deposition**, In: *Rezumatele conferinței Științifică a Colaboratorilor, Doctoranzilor și Studenților ai UTM*, ISBN, Chișinău, 16 - 17 noiembrie 2007, p.2

## 2007

75. ARMENCEA, N.; ŞONTEA, V.; BRAGARENCO, A.; ANGHIOGLU, D.; PAHOMI, V. **Dispozitiv pentru înregistrarea și prelucrarea fotopletismogramelor**. In: *Proceedings of the 5 th International Conference on Microelectronics andComputers Science*, Chișinau 2007 V.II pp. 24-27.
76. BRAGARENCO, A.; TEODORESCU, N.; ŞONTEA, V. **Sistem de achiziție a semnalelor biomedicale**. In: *Proceedings of the 5 th International Conference on Microelectronics andComputers Science*, Chișinau 2007 V.II pp. 34-38.
77. LUPAN O.; CHOW, L.; URSAKI, V.; MONAICO, E.; TIGINYANU, I.; SHISHIYANU, S.; SHISHIYANU, T.; PARK, S.; SCHULTE, A. **Effect of Sn dopant on the properties of ZnO nanorod arrays**. In: *The 2007 International Semiconductor Conference (CAS 2007)*, October 15-17, Sinaia, Romania, ISSN 1545-827X; ISBN 1-4244-0847-4, Vol.2, p.349-352
78. LUPAN, O. **Investigation of ZnO andCu<sub>2</sub>O nanoarchitectures as functional materials in novel H<sub>2</sub> nanosensors**. In: *5th International Conference on “Microelectronics andComputer Science”*, Vol. 1, ICMCS-2007, ISBN 978-9975-45-045-4, pp. 103-106, Sept. 19-21, 2007
79. LUPAN, O.; CHOW, L. **Synthesis andcharacterizations of ZnO nanorouds arrays for gas sensors andsolar cell applications**, (Poster Presentation), In: *NSTI-2007, Proceedings of the International Nanotechnology Conference andTrade Show, Nanotech-2007*, (ISBN 1420063766), vol. 4, pp. 457-460, May 20-24, 2007, Santa Clara, California, U.S.A.



80. LUPAN, O.; SHISHIYANU, S.; CHOW, L.; SHISHIYANU, T.; ŞONTEA, V.; MONAICO, E.; SCHULTE, A.; PARK, S. **Investigation of zinc oxide nanostructures prepared by chemical deposition and rapid photo-thermal processing technology.** *In: The 2007 International Semiconductor Conference (CAS 2007)*, October 15-17, Sinaia, Romania, ISSN1545-827X; ISBN1-4244-0847-4, Vol.2, p.341-344.
81. LUPAN, O.; SISIANU, S.; CHOW, L.; SISIANU, T. **Semiconductor oxide sensor for NH<sub>3</sub> and methanol.** *In: International Conference Information Technologies-BIT+*, April 24-26, 2007. p.1-4..
82. MIRONOV, B. **High-speed gating comparator with the internal positive feedback.** *In: Proceedings of the 5th International Conference on "Microelectronics and Computer Science" (Volume II)*. Chişinău, 2007. p. 506-509.
83. SHISHIYANU, S.; LUPAN, O.; CHOW, L.; SHISHIYANU, T.; MONAICO, E.; SCHULTE, A.; PARK, S. **Investigation of ZnO nanostructures prepared by chemical deposition and rapid photo-thermal processing technology.** *In: IEEE Proceedings of International Semiconductor Conference CAS 2007*, Sinaia, Romania, October 15-17, 2007, Vol.2, pp.341-344.
84. SHISHIYANU, S.; SHISHIYANU, T.; LUPAN, O.; SONTEA, V.; RAILEAN, S.; POCAZNOI, I. **Relative humidity gas sensor.** *In: Proceedings of the 5th International Conference on "Microelectronics and Computer Science"*, Vol. 1, ISBN 978-9975-45-045-4, pp.21-24, September 19-21, 2007
85. SHISHIYANU, S.; SINGH, R.; SHISHIYANU, T.; RAILEAN, S. **Thermal budget for Rapid Photothermal Processing solar cells fabrication.** *In: Proceedings of 7th International Conference Informational Technologies Bit+2007*, Chisinau, Moldova May, 2007. pp.33-35.
86. ŞIŞIANU, T.; ŞIŞIANU, S.; ŞONTEA, V.; LUPAN, O.; CHOW, L.; KHALLAF, H.; MONAICO, E.; RAILEAN, S.; POCAZNOI, I. **Nanostructured Al-doped zinc oxide films by rapid photothermal processing for solar cells applications.** *In: Proceedings of the 5th International Conference on "Microelectronics and Computer Science"*, Vol. 1, ICMCS-2007, ISBN 978-9975-45-045-4, pp.99-102, September 19-21, 2007.
87. TROFIM, V.; LAZAREV, A. **Fotoreceptori sensibili la coordonata pe baza p-n joncţiunilor în Si.** *In: Proc. Of the 5th International Conference on „Microelectronics and Computer Science”*, vol. 2, IC MC, Chisinau, September 2007, P.59-64
88. ŞIŞIANU, T.; ŞIŞIANU, S.; LUPAN, O.; RAILEAN, S. **The RPP technology for Si and ZnO/Si solar cells.** *In: Proceedings of the 1th National Conference on Telecommunications, Electronics and Informatics, CNTEI-2006*, (ISBN 978-9975-9853-7-6), Chişinău, Moldova, Mai 19-20, 2006, pp.159-162.

## 2006

89. ALBU, S.; MONAICO, E.; TIGINYANU, I. and URSAKI, V. **GaP template based semiconductor-metal nanocomposite.** *In: 3rd International Conference on Materials Science and Condensed Matter Physics*, October 3-6, 2006, Chisinau, Moldova.
90. BRAGARENCO, A.; SONTEA, V. **Evaluation and Control System for a Laboratory Experiment.** *In: Proceeding of European Conference on the Use of Modern Information and Communication Technologies 2006*, Gent, Belgium, 30-31 March 2006, p.362 - 366

91. SHISHIYANU, S. **RTP Diffusion and Junction formation in Si, GaAs and InP.** *In: Proc. of 14th IEEE International Conference on Advanced Thermal Processing of Semiconductors, RTP 2006*, October 10 - 13, 2006. Japan, Kyoto, IEEE Catalog Number: 06EX1530; ISBN:1-4244-0648-X. Paper appears in: Advanced Thermal Processing of Semiconductors, 2006. RTP '06. 14th IEEE International Conference on Advanced Thermal Processing of Semiconductors, 10-13 Oct. 2006, pp. 199 – 204.
92. SHISHIYANU, S. **The RPP diffusion and shallow p-n junctions in Si and GaAs.** *In: Proceedings of 14th IEEE International Conference on Advanced Rapid Thermal Processing of Semiconductors, RTP 2006*, Kyoto, Japan, October 10-13, 2006, pp.199-204.
93. SHISHIYANU, S.; SINGH, R.; SHISHIYANU, T.; LUPAN, O. **Impact of Rapid Photothermal Processing on Properties of ZnO Nanostructures for Solar Cell Applications.** *In: IEEE Proceedings of 25th International Conference on Microelectronics MIEL-2006*, Belgrade, Serbia and Montenegro, May 14-17, 2006, pp.153-156.
94. SHISHIYANU, S.; SINGH, R.; SHISHIYANU, T.; LUPAN, O.; RAILEAN, S.; SARGU, S. **Rapid Photothermal Processing for Silicon solar cells fabrication.** *In: IEEE Proceedings of International Semiconductor Conference Micro-and Nanotechnologies 29th Edition*, Sinaia, Romania, September 27-29, 2006, Vol.1, pp.175-178.
95. SHISHIYANU, T.; SHISHIYANU, S.; LUPAN, O.; ŞONTEA, V.; BRAGORENCO, A. **Novel zinc oxide nanostructured thin films for volatile organic compounds gas sensors.** *In: IEEE Proceedings of International Semiconductor Conference Micro-and Nanotechnologies 29th Edition*, Sinaia, Romania, September 27-29, 2006, Vol.1, pp.201-204.
96. ŞIŞIANU, T.; ŞIŞIANU, S.; LUPAN, O.; RAILEAN, S. **The RPP technology for Si and ZnO/Si solar cells.** *In: Proceedings of the 1th National Conference on Telecommunications, Electronics and Informatics, CNTEI-2006*, (ISBN 978-9975-9853-7-6), Chişinău, Moldova, Mai 19-20, 2006, pp.159-162.
97. VOLCIUC, O.; POPA, V.; TIGHINEANU, I.; DIAZ-GUERRA, C.; PIQUERAS, J. **Cathodoluminescence microscopy and spectroscopy of GaN epilayers microstructured using surface charge lithography.** *In: 5th Int. Conf. "Porous Semiconductors: Science and Technology"*, Spania, March 12-17, 2006. Abstract Booklet.