Anexa la CV

AVRAM MARIOARA

Activitate relevantă în perioada: 01/01/2004 - *prezent*

A. Proiecte câştigate prin competiţie naţională, în calitate de coordonator/partener (titlu/valoare RON)

1. RELANSIN / "Tehnologie de realizare a tranzistorului bipolar cu poarta izolata integrat pe carbura de siliciu pentru aplicatii speciale de putere si temperatura"2004-2006, 33000 lei
2. CEEX „Sistem microfluidic integrat pentru analiza in vitro a fluidelor biologice cu aplicatii in diagnoza si tratament medical" (MICRO-DIAG), 2005-2008 valoare 150.000 lei
3. PNII – „Senzor pe diamant pentru aplicatii speciale in industria cimentului", 2007-2010
4. PNII – Parteneriate „Biochip microfluidic pentru caracterizarea reologica a fluidelor biologice ne-newtoniene cu aplicatii in diagnoza si tratament medical" (MELANOCIHIP), 2008-2011, valoare 2.000.000 lei
5. PNII – Parteneriate „Sistem micro - electro - mecanic cu aplicatii in reconstructia microchirurgicala a nervilor periferici" (RECONECT), 2008-2011, valoare 2000000 lei
6. PNII – Parteneriate „Nanodispozitive semiconductoare oxidice pentru aplicatii in domeniul nanoelectronica si nanomedicina" (NANOSICOND – NANOMED), 2008-2011, valoare 2.000.000 lei
7. PNII – IDEI „Dezvoltarea unui model conceptual al laboratorului de analiza pe un chip pentru separarea continua a particulelor prin magnetoforeza si dielectroforeza", 2008-2011, valoare 1.000.000 lei
8. NUCLEU – „Configurarea submicronica a suprafetelor prin corodare cu ioni reactivi din plasme RF", 2009-2010, valoare 12250000 lei
9. MATNANTECH "Microstructuri si microangrenaje cu detectie magnetica", 2004-2006, valoare 2200 lei, valoare 22000 lei
10. CEEX „Dispozitive Schottky de mare putere si temperaturi inalte realizate pe diamant", 2006-2008, 150.000 lei
11. POSCCE O2.1.2 „Fabrica microfluidica pentru auto-asamblarea asistata a nanosistemelor", 2010-2013, 5.900.000 lei

B. Membru în proiecte câştigate prin competiţie internaţională (titlu/valoare EURO)

1. FP6 SSA, "ROManian inventory and NETworking for Integration in ERA", contract nr. 510475 finantat de Comisia Europeana, 2004-2007

2. FP6 - European Network Nanofun-Poly, NoE: „Nanostructured and Functional Polymer-Based Materials and Nanocomposites", 2004 – 2008

3. FP6 - European Network Nano2Life- „European Network of Excellence in nanobiotechnology", 2004- 2008

4. MNT ERA - NET A "system-in-a-microfluidic package" approach for focused diagnostic DNA microchips (DNASIP).

5. MNT ERA – NET, "Nanostructural carbonaceous films for cold emitters" (NANOCAFE).

C. Articole publicate în reviste internaţionale cotate/indexate ISI

1. C. Iliescu, M. Avram, B. Chen, A. Popescu, V. Dumitrescu, D.P. poenar, A. Sterian, D. Vrtacnik, S. Amon, P. Sterian, „Residual stress in thin films PECVD depositions: a review", JOAM, vol.13, No.4, pp. 387-394, 2011.
2. 2. M. Volmer, M. Avram, „Micromagnetic Simulations on Detection of Magnetic Labelled Biomolecules Using MR Sensors", Journal of Magnetism and Magnetic Materials, 321 (2010), 1683-1685.
3. M. Volmer, M. Avram, „Improving the Detection Sensitivity of Magnetic Micro Beads by Spin Valve Sensors", The American Institute of Physics Conference Proceedings Series, Vol.1311, pp261-266, 2010, ISBN: 978-0-7354-0866-1
4. Marius VOLMER, Marioara AVRAM, „On Designing a Positioning and Detection System for a Lab-on-a Chip Device", ROJIST, Volume 13, Number 4, 2010, pp. 378–388
5. F.S. Iliescu, A.P. Sterian , E. Barbarini, M. Avram, C. Iliescu, "Continuous Separation of White Blood Cells From Blood in a Microfluidic Device, UPB. Sci. Bull., Series A, Vol. 71, Is.4, ISSN 1223-7027, 2009.
6. Jia-Shen Wei, Kwong Joo Leck, Philip Gaughwin, Marioara Avram, Ciprian Iliescu, „Low stress nanoporous SiNx membrane for cell culture" Int. J. Computational Materials Science and Surface Engineering, Vol. 2, No. 3/4, 2009, pp..268-281
7. Ciprian Iliescu, Guolin Xu, Elena Barbarini, Marioara Avram, Andrei Avram, „Microfluidic device for continuous magnetophoretic separation of white blood cells" , Microsystem technologies-micro-and nanosystems-information storage and processing systems (2009) 15, pp.1157–1162, DOI 10.1007/s00542-008-0718-9
8. Marius Volmer, Marioara Avram, „Micromagnetic simulations on detection of magnetic labelled biomolecules using MR sensors", Journal of Magnetism and Magnetic Materials 321 (2009) pp.1683–1685
9. M. Avram, A.M. Avram, R. Vasilco, M. Volmer, A. Popescu, and A. Ghiu, The optimised spin-valve magnetotransistor, Materials Science & Engineering B 152/1-3, (2008) pp. 72-75,
10. M. Volmer, M. Avram, Electrical characterization of magnetoresistive sensors based on AMR and GMR effects used for lab-on-a-chip applications, Reviews on advanced materials science, 15(2008) 220-224,
11. M. Volmer, J. Neamtu, M. Avram, Magnetoresistance sensors with magnetic layers for high sensitivity measurements, Journal of optoelectronics&advanced materials, 10(1), 2008, p.104– 109
12. Marioara AVRAM, Andrei Marius AVRAM, Adina BRAGARU, Andrei GHIU, Ciprian ILIESCU, Plasma Surface Modification for Selective Hydrophobic Control, ROJIST, vol.11, Nr.4, pp. 409–422, (2008).
13. Marius Volmer, Marioara Avram, „Magnetoresistive sensor based on AMR and GMR effects for biomedical applications", Journal of Optoelectronics and Advanced Materials, vol.9, no. 6, pp. 1808-1812, 2007
14. M. Volmer, M. Avram, J. Neamtu, Development of a rotation sensor based on anisotropic magnetoresistance effect, Journal of optoelectronics and advanced materials, 9(4), 2007, p. 1048-1051

15. M. Brezeanu, T. Butler, N.L. Rupesinghe, G.A.J. Amaratunga, S.J. Rashid, F. Udrea, M. Avram, G. Brezeanu, „Ramp oxide termination structure using high voltage diamond Schottky diodes ", Diamond & Related Materials 16, pp. 1020-1024, 2007, doi: 10.1016/j.diamond.2007.01.016
16. M. Avram, A. Avram and C. Iliescu, "Biodynamical analysis microfluidic system", Microelectronic Engineering, vol. 83, issue 4-9, April-September 2006, pp. 1688-1691, doi:10.1016/j.mee.2006.01.158.
17. M. Avram, C. Iliescu, O. Neagoe, C. Voitinicu and S. Nedelcu, "Bipolar magnetic microsensor for longitudinal and transversal magnetic fields", Sensors and Actuators A, vol. 123-124, September 2005, pp. 296-302, doi:10.1016/j.sna.2005.04.010.
18. L.M. Yu, G.L. Xu, F.E. H. Tay, C. Iliescu, M. Avram, "Theoretical analysis and experiment research of a novel DEP chip with 3-D silicon electrodes", International Journal of Software Engineering and Knowledge Engineering (IJSEKE), vol. 15, no. 2, pp. 231-236, April 2005.
19. M. Avram, „Deposition experiments of thin metallic multilayers with magnetoresistive properties", Journal of optoelectronics and advanced materials, Volume: 6 Issue: 3 Pages: 987-990
20. M. Avram, O. Neagoe, C. Codreanu, „Bipolar magnetic microsensor for longitudinal fields", Sensors and Actuators A, Volume: 110 Issue: 1-3 Pages: 259-263, 2004

D. Articole publicate în reviste internaţionale neindexate ISI dar indexate în Baze de date internaţionale (BDI) de referinţă sau articole publicate în volumele conferinţelor internaţionale.

1. Avram M., Petrescu I., Volmer M., Bălan C. M., Mărculescu C., Avram. A., Cellular uptake of gold covered maghemite superparamagnetic nanoparticles and their effects on mouse melanoma B16 cells, Euromat 2011, Montpellier, France, Sept. 12-15. A 24- O - pm 1 – 3.

2. Avram M., Petrescu I., Rădoi A., Avram A., Bălan C.M., Popescu A., 2011, „Gold nanoparticle uptake by tumor cells of melanoma B16", International Conference on Nanosciences and Nanotechnologies, NN11, Thessaloniki, Greece, July 12-15, pp. 87.

3. Mărculescu C., Bălan C. M., Avram A., Avram M., 2011, „Experimental and numerical flow characterization of microfluidic hydrodynamic focusing of liposomes", International Conference on Nanosciences and Nanotechnologies, NN11, Thessaloniki, Greece, July 12-15, pp. 459.

4. Avram M., Schiopu V., Avram A., Mărculescu C., Bălan C.M., Popescu A., Volmer M., 2011, „Melanoma cells apoptosis induced by magnetic hyperthermia", International Conference on Nanosciences and Nanotechnologies, NN11, Thessaloniki, Greece, July 12-15, pp. 453.

5. Bălan C. M., Avram M., Avram A., Guolin Xu, Rhensheng Deng, Iliescu C., 2011, „A 3D chaotic microfluidic mixer", Conference on Micromechanics and Micro Systems, Europe Workshop, Toensberg, Norway, June 19-22, 2011, pp. 268-271.

6. A. Avram, A. Radoi, V. Schiopu, M. Avram and H. Gavrila, „Synthesis and Characterization of γ-Fe_2O_3 Nanoparticles for Applications in Magnetic Hyperthermia", SMM 2011, Kos, Grece

7. M. Avram, M. Volmer, A. Avram, R. Vasilco, „Blood Viscosity Measurements for the Detection of Changes in Cardiovascular Diseased Patients", AMN-APLOC, Singapore, 5-7 Jan, 2011

8. M. Avram, O. Neagoe, A. Avram, A. Popescu, C. Voitincu, „Severed Nerve Reconstruction by Means of Measuring the Speed of Electrical Signal Propagation", AMN-APLOC, Singapore, 5-7 Jan, 2011

9. M. Volmer, M. Avram, „Lab-on-chip – a new platform for basic research and for rapid diagnosis purposes" in „Bioanalytical Methods for Life Sciences. Chromatography. Sensors and Biosensors", pag. 85-98, Editura Universitatii Transilvania din Brasov, ISBN 978-973-598-723-7, 2010, Editori Mihaela Badea, Monica Florescu

10. Marius Volmer, Marioara Avram, Andrei Avram, „Using a planar Hall effect sensor for single bead detection", CAS, Sinaia, Romania, 11-13 Oct. 2010, p. 221-4, ISBN 978-1-4244-5781-6

11. M. Avram, A. Avram, A. Bragaru, B. Chen, D.P. Poenar, C. Iliescu, „Low stress PECVD amorphous silicon carbide for MEMS applications", CAS, Sinaia, Romania, 11-13 Oct. 2010, p. 239-41, ISBN 978-1-4244-5781-6

12. Andrei Avram, Marioara Avram and Horia Gavrila, Microfluidic magnetic platform for handling and separating blood cells, IEEE-ROMSC, Iasi, Romania, 7-8 June 2010.

13. M. Volmer, M. Avram, „Improving the Detection Sensitivity of Magnetic Micro Beads by Spin Valve Sensors", AIP Conference Proceedings Volume 1311, pp. 261-266, 2010, 8TH International Conference on the Scientific and Clinical Applications of Magnetic Carriers, Rostock, Germany

14. M. Volmer and M. Avram, „Microbeads detection using spin-valve structures; a micromagnetic approach", Hysteresis Modeling and Micromagnetics 2009 - NIST, Gaithersburg, Maryland, USA

15. M. Volmer, M. Avram, A.M. Avram, „On Manipulation and Detection of Biomolecules Using Magnetic Carriers", IEEE International Semiconductor Conference, pp.155 -158, vol.1, 2009, ISBN: 978-1-4244-4413-7; ISSN: 1545-827X

16. Josan, C. Boianceanu, G. Brezeanu, V. Obreja, M. Avram, D. Puscasu, A. Ioncea, Extreme Environment Temperature Sensor Based On Silicon Carbide Schottky Diode, IEEE International Semiconductor Conference, pp.525-528, vol.2, 2009, ISBN: 978-1-4244-4413-7; ISSN: 1545-827X.

17. M. Avram, A. Avram, M. Purica, A.M. Popescu, C. Voitincu, Characterization of Defects Generated During Reactive Ion Etching, IEEE International Semiconductor Conference, pp.249-252, vol.1, 2009, ISBN: 978-1-4244-4413-7; ISSN: 1545-827X.

18. M. Avram, A. Avram, F. Comanescu, A.M. Popescu, C. Voitincu, Reactive Ion Etching for Patterning High Aspect Ratio and Nanoscale Features, IEEE International Semiconductor Conference, pp.253-256, vol.1, 2009, ISBN: 978-1-4244-4413-7; ISSN: 1545-827X.

19. Marioara Avram, Andrei Avram, "Spin Valve Platform for Blood Cells Magnetophoresis", The 21st Conference of the Society for Medical innovation and Technology, SMIT 2009, Sinaia

20. Vasile Obreja, Marioara Avram, „On The Origin of Leakage Reverse Current in SiC Diodes", International Semiconductor Device Research Symposium (ISDRS '09), University of Maryland SUA

21. E. Barbarini, M. Avram, A.R. Sterian, G. Xu and C. Iliescu, „Theoretical and experimental considerations regarding magnetic separation in microfluidic devices", 8th Word Congress on Computational Mechanics (WCCM8) and 5th European Congress on Computational Applied Sciences and Engineering, Venice, Italy, 30 June-4 July 2008.

22. M. Volmer, M. Avram, Micromagnetic Simulations on Detection of Magnetic Labeled Biomolecules Using MR Sensors, “7th International Conference on the Scientific and Clinical Applications of Magnetic Carriers”, Vancouver, Canada, 21-24 Mai, 2008, pag. 229

23. Ciprian Iliescu, Elena Barbarini, Marioara Avram, Guolin Xu, Andrei Avram, Microfluidic Device for Continuous Magnetophoretic Separation of Red Blood Cells, DTIP of MEMS & MOEMS, Nice, April. 2008, p. 279-282

24. Marioara Avram, Ciprian Iliescu, Marius Volmer, Andrei Avram, Magnetic microfluidic device for biorheological analysis in lab-on-a-chip systems, MNE08, Athens, Sept. 2008, Bio 3, P22

25. Marioara Avram, Ciprian Iliescu, Marius Volmer, Andrei Avram, Microfluidic device for magnetic separations in lab-on-a-chip systems, MNC2008, 29D-9-146, Fukuoka, Japan, Oct. 2008, p. 442-443

26. M. Avram, C. Iliescu, M. Volmer, F.S. Iliescu, M.A. Avram, Microfluidic device for biocells manipulation and measurement, CAS 2008 Proceedings, Vol. 1, pag. 159-162, ISBN 978-1-4244-2004-9

27. M. Volmer, J. Neamtu, M. Avram, Magnetoresistance sensors with magnetic layers for high sensitivity measurements, Lucrare invitata, 8th International Balkan workshop on applied physics, 5-7 Iulie, 2007, Constanta, Romania, ISBN 978-973-614-391-5

28. M. Kusko, A.M. Avram, D. Apostol, Design and fabrication of Fresnel lenses, CAS 2008 Proceedings, Vol. 2, pag. 445-448, ISBN 978-1-4244-2004-9

29. C. Iliescu, E. Barbarini, G. Xu, M. Avram, A. Avram, „Microfluidic device for continuous magnetophoretic separation of red blood cells”, Proc. of Design, Test, Integration and Packaging (DTIP) 2008, 9-11 April 2008, Nice, France, ISBN: 978-2-35500-006-5

30. Marioara Avram, Marius Volmer, Andrei Avram „Advanced MR Sensing of the Rotation Rate for Biomedical Applications, ESF-EMBO Symposium Biomagnetism and Magnetic Biosystems Based on Molecular Recognition Processes, Sant Feliu de Guixols (Costa Brava) Spain, 2007.

31. Marioara Avram, Marius Volmer, „Detection of Magnetic-Based Bio-Molecules Using MR Sensors, ESF-EMBO Symposium Biomagnetism and Magnetic Biosystems Based on Molecular Recognition Processes, Sant Feliu de Guixols (Costa Brava) Spain, 2007.

32. Marioara Avram, Marius Volmer, Alina Popescu, Andrei Avram, Roxana Vasilco „The Optimised Spin Valve Magnetotransistor”,Nanoscience & Nanotechnologies, Thessaloniki , 2007.

33. Marioara Avram, Andrei Avram, Adina Bragaru, Andrei Ghiu, Ciprian Iliescu, „Plasma surface modification of polimer substrates for selective hydrophobic control”, IEEE International Semiconductor Conference, pp.91-94, vol.1, 2007, ISBN: 1-4244-0847-4; ISSN: 1545-827X

34. Brezeanu, M. Avram, M. Brezeanu, C. Boianceanu, F. Udrea, G.A.J. Amaratunga, „Fabrication of diamond based Schottky barrier diodes with oxide ramp termination” IEEE International Semiconductor Conference, pp.411-414, vol.2, 2007, ISBN: 1-4244-0847-4; ISSN: 1545-827X

35. Andrei Avram, Marioara Avram, „Design and fabrication of microfluidic valves” IEEE International Semiconductor Conference, pp.559-562, vol.2, 2007, ISBN: 1-4244-0847-4; ISSN: 1545-827X

36. A. Popescu, C. Podaru, R. Vasilco, E. Manea, R. Gavrila, M. Avram “Manufacturing of Nanoporous Silicon Membranes for Bio-Medical Applications”, , 4th International Conference

on Nonosciences & Nanotechnologies, Aristotle University of Thessaloniki, 16-18 July, 2007, Salonic, Grecia, Abstract Book–N&N07, pp.169.

37. M. Avram, M. Volmer, A.M. Avram, C. Iliescu, A. Bragaru, "Advance magnetoresistence sensing of rotation rate for biomedical applications", Proc. Of 29th edition of Int. Semiconductor Conf. – CAS 2006, Sinaia, Romania, vol. 1, pp. 231-234, 27-29 September 2006.

38. M.A. Avram, M. Avram, C. Iliescu, A. Bragaru, "Flow of non-Newtonian fluids" Proc. Of 29th edition of Int. Semiconductor Conf. – CAS 2006, Sinaia, Romania, vol. 2, pp.433-436, 27-29 September 2006.

39. L. Yu, F.E.H. Tay, G. Xu, B. Chen, M. Avram and C. Iliescu, "Adhesive bonding with SU-8 at wafer level for microfluidic devices", International MEMS Conference (iMEMS), 9-12 May 2006, Singapore

40. M.A. Avram, M. Avram and C. Iliescu, "A biodynamic microsystem for fluids viscosity measurements" International MEMS Conference (iMEMS), 9-12 May 2006, Singapore.

41. M.A. Avram, M. Avram, „Double Bridge Magnetic Sensor", 4th International Student Conference of the Balkan Physical Union, Bodrum, Turcia, aug. – sept. 2006.

42. M.A. Avram, M. Avram, M. Volmer, „Magnetic Sensor Array", 3rd Workshop on Nanosciences & Nanotechnologies, Thessaloniki, Grecia, 2006.

43. M. Volmer, M. Avram, „Electrical characterization of magnetoresistive sensors based on AMR and GMR effects used for lab-on-a-chip applications", EMRS, Varsovia, Polonia, 2006.

44. A.M. Avram, M. Avram, A. Bragaru, „Microelectromechanical System for Non-Newtonian Fluids Flow Measurements", Materials for Electrical Engineering, UPB, 2006.

45. M. Brezeanu, M. Avram, J. Rashid, G. Amaratunga, T. Butler, N. Rupesinghe, F. Udrea, A. Tajani, M. Dixon, D. Twitchen, A. Garraway, D. Chamund, P. Taylor, G. Brezeanu, „Termination structures for diamond Schottky barrier diodes", ISPSD, Portugalia, 2006.

46. M.A. Avram, M. Avram M. Volmer and C. Iliescu, "BioMEMS for the determination of rheological properties of biological fluids" to Smart Materials, Nano-, and Micro-Smart Systems 2006, Adelaide, Australia, 10-13 December 2006.

47. M. Volmer, M. Avram, J. Neamtu, „Development of a rotation sensor based on anisotropic magnetoresistence effect", JEMS, Spania, San Sebastian, 2006.

48. L.M. Yu, G.L. Xu, F.E. H. Tay, C. Iliescu, M. Avram, "Theoretical analysis and experiment research of a novel DEP chip with 3-D silicon electrodes", 1st Int. Embedded and System Conf. (IEHSC), Singapore, 10-13 May 2005.

49. M. Avram, M.A. Avram, Ciprian Iliescu,"The Biodynamical Analysis Microfluidic System", MNE05, pp. 3_o-11, 2005.

50. M. Avram, M.A. Avram, C. Iliescu, C. Codreanu, C. Voitincu, „Silicon Integrated Magnetic Sensor for Accurate Magnetic Field Measurement", EUROSENSORS XIX, pp. Wpb52, 2005

51. A.Bragaru, T. Ignat, M. Simion, I. Kleps, A. Angelescu, M. Miu, F. Craciunoiu, M. Avram, E. Condac, „Porous Silicon Surface Functionalization with Polymers for Biomolecules Attachment" 3rd Workshop of the Network of Excellence "NANOFUN-POLY" on „Chemistry, Processing, Structure and Properties, and Applications of Nanostructured Polymers and Nanocomposites Life-Cycle Engineering, Gender Issues, 2005.

52. V.V.N.Obreja, E. Manea, C. Codreanu, M. Avram, C. Podaru, „The Junction Edge Leakage Current and The Blocking I-V Characteristics of Commercial Glass Passivated Thyristor Devices IEEE International Semiconductors Conference, pp. 223 – 226, 2005.

53. Marioara Avram, Andrei Avram, Ciprian Iliescu, Elena Manea, Corneliu Voitincu, „Microfluidic Dynamic System for Biological Fluids Viscosity Measurements", IEEE International Semiconductors Conference, pp. 447 – 410, 2005 (Best Paper Awards).

54. M. Volmer, M. Avram, Detection of Magnetic-Based Bio-Molecules Using MR Sensors, The American Institute of Physics Conference Proceedings Series, 1025 (2008), 125-130, ISBN 978-0-7354-05479-9

55. M. Avram, M. Volmer, A. Avram, Advanced Magnetoresistance Sensing of Rotation Rate for Biomedical Applications, The American Institute of Physics Conference Proceedings Series, 1025 (2008), 186-193, ISBN 978-0-7354-05479-9

56. M. Avram, M.A. Avram „Micro-device for biological fluids analysis", SPIE Newsroom, 10.1117/2.1200702.0656, apr. 2007

57. L. Yu, F.E.H. Tay, G. Xu, B.T. Chen, M. Avram and C. Iliescu, "Adhesive bonding with SU-8 at wafer level for microfluidic devices", J. Phys.: Conf. Ser., vol. 34, May 2006, pp. 776-781, doi:10.1088/1742-6596/34/1/128.

58. A.M. Avram, M. Avram, A. Bragaru, R. Vasilco and C. Iliescu, "A biodynamic microsystem for fluids viscosity measurements", J. Phys.: Conf. Ser., vol. 34, May 2006, pp. 82-88, doi:10.1088/1742-6596/34/1/014.

59. C. Iliescu, B. Chen, J. Miao, M. Avram, M. A. Avram, „Inertial Sensors with Tunable Range", Romanian Journal of Information Science and Technology (ROMJIST), vol. 9, no. 4, December 2006, pp. 311-320

60. M. Avram, M.A. Avram, A. Bragaru, R. Vasilco, „A Biodynamic Microsystem for Fluids Viscosity Measurements", Romanian Journal of Information Science and Technology (ROMJIST), vol. 9, no. 4, December 2006, pp. 265-276

61. M. Avram, M. Volmer, M.A. Avram, J. Neamtu, „Integrated Magnetic Microsensors for Accurate Magnetic Field Measurement" Romanian Journal of Information Science and Technology (ROMJIST), vol. 9, no. 4, December 2006, pp. 247-263

62. C. Iliescu, M. Avram, J. Miao, F.E.H. Tay, "A new fabrication process for inertial sensors with tunable range" Romanian Journal of Information Science and Technology (ROMJIST), vol. 9, no.2, October 2006, pp. 83-90,

63. A.M. Avram, M. Avram and C. Iliescu, "A gear wheels microsystem for biodynamical applications" Romanian Journal of Information Science and Technology (ROMJIST), vol. 8, no. 4, December 2005, pp. 355-365

64. Avram, M; Brezeanu, G; Poenar, DP, et al., „Contributions to development of IGBT on SiC technologies", 16th International Conference on Microelectronics Proceedings (ICM 2004), 2004 Tunis, TUNISIA, Pages: 368-371.

65. Avram, M; Brezeanu, G; Iliescu, C, et al., „Contributions to development of power SiC devices", 2004 International Semiconductor Conference, Vols 1and 2, Proceedings Pages: 303-306, 2004.

66. Avram, M; Brezeanu, G; Poenar, DP, „The comparison of modern SiC power devices", 2004 IEEE International Conference on Industrial Technology (ICIT), Vols. 1- 3 Pages: 504-509, 2004

67. Codreanu, I; Codreanu, C; Obreja, VVN, Avram, M., „Use of genetic algorithms in heat transfer problems" 2004 International Semiconductor Conference, Vols 1and 2, Proceedings Pages: 499-502, 2004

68. Iliescu, C; Avram, M; Miao, JM, et al., „Two masks process for high aspect ratio inertial sensors with ajustable range", 2004 International Semiconductor Conference, Vols 1and 2, Proceedings Pages: 263-266, 2004

E. Patents

1. Title: Process for making spin valve transistor includes emitter, semiconductor collector, metallic base and structured nano multilayer with gigantic magnetoresistance
Patent Number(s): RO122168-B1
Assignee: INST NAT CERC DEZVOLTARE MICROTEHNOLOGIE
Inventor(s): AVRAM M; ANGELESCU A; KLEPS I

2. Title: Monolithic silicon based Hall sensor fabrication technique has symmetry, to minimise the main effects of parasitic elements on precision
Patent Number(s): RO120515-B1
Assignee: INST NAT CERC DEZVOLTARE MICROTEHNOLOGIE
Inventor(s): AVRAM M; CODREANU C

3. Title: Production of bipolar magneto transistors provides two vertical npn transistors in an antisymmetrical configuration, (THE WIPO AWARD FOR WOMAN INVENTOR)
Patent Number(s): RO120681-B1
Assignee: INST NAT CERC DEZVOLTARE MICROTEHNOLOGIE
Inventor(s): AVRAM M; CODREANU C

4. Title: Production of a nano electrodes network employs silicon to yield an electrochemical cell with integrated electrodes
Patent Number(s): RO119032-B1
Assignee: INST NAT CERC DEZVOLTARE MICROTEHNOLOGIE
Inventor(s): KLEPS I; ANGELESCU A; AVRAM M.

5. Title: Production of field emission based magnetic field sensors consists of controlled corrosion by MOSFET technique with regulated oxide formation
Patent Number(s): RO118499-B
Assignee: INST NAT CERC DEZVOLTARE MICROTEHNOLOGIE
Inventor(s): AVRAM M; KLEPS I; ANGELESCU A

6. Microincalzitor cu retea distribuita de senzori pentru detectarea gradientilor de temperatura, Cecilia Codreanu, Vasile Obreja, Marioara Avram, Irina Codreanu, Nr. 013928 / 09.06.2005.

7. Topografie magnetotranzistor bipolar, Marioara Avram, Nr. 4/11.02.2005 – TCI din 15.03.2005.

8. Topografie microsenzor Hall integrat pe siliciu, Marioara Avram, Nr. 3/11.02.2005 – TCI din 15.03.2005.

9. Microangrenaj cu roti dintate realizat prin tehnica straturilor de sacrificiu, Marioara Avram, Andrei Avram, brevet Nr. 016154 / 07.06.2006

10. Topografie (layout) de diode Schottky pe carbura de siliciu si diamant pentru aplicatii de putere si temperatura ridicata, Gheorghe Brezeanu, Marioara Avram, Puscasu Doru, Draghici Florin, Rusu Ioan, Ioncea Anghel

11. Anemometru cu rezistoare fierbinti ingropate pentru detectia turbulentelor in canale microfluidice, Marioara Avram, Andrei Marius Avram, Corneliu Voitincu, Certificat Nr. 13 – TPS/2011

12. Sistem magnetoforetic activ pentru separarea celulelor in camp magnetic, Marioara Avram, Andrei Marius Avram, Corneliu Voitincu, Certificat Nr. 14 – TPS/2011

13. Sistem de filtre microfluidice pentru separarea microparticulelor in functie de proprietatile morfologice, electrice si magnetice, Marioara Avram, Andrei Marius Avram, Corneliu Voitincu, Certificat Nr. 15 – TPS/2011

14. Sistem magnetoforetic pentru detectia moleculelor marcate magnetic, Marioara Avram, Andrei Marius Avram, Corneliu Voitincu, Certificat Nr. 16 – TPS/2011

F. Realizări excepţionale (premii, prezentări invitate, etc.)

1. THE WIPO AWARD FOR THE BEST WOMAN INVENTOR, INVENTIKA 2006, pentru inventia: „Bipolar Magnetotransistor with Enhanced Emitter Injection Modulation and Carrier Deflection", Geneva and Bucharest, October 2006;

2. MEDALIE DE AUR la Salonul International de Inventii EUREKA de la Bruxelles, pentru inventia „Procedure of Realization a Spin Valve Magnetotransistor", noienbrie 2008

3. MEDALIE DE AUR la Salonul International de Inventii de la GENEVA, pentru inventia „Un procédé de réalisation d`un magnetotransistor á valve de spin", aprilie 2007;

4. MEDALIE DE ARGINT la INVENTIKA 2007, pentru inventia «Procedeu de realizare a tranzistorului cu valva de spin», Bucuresti, octombrie 2007

5. BEST PAPER AWARDS "Two masks process for high aspect ratio inertial sensors with adjustable range", C. Iliescu, M. Avram, J.M. Miao, F.E.H. Tay and G.L. Xu, Proc. of Int. Semiconductor Conf. - CAS2004, vol. 1, pp. 263-266, Sinaia, Romania, 4-6 October 2004

6. BEST PAPER AWARDS "Microfluidic dynamic system for biological fluid viscosity measurements", M. Avram, A. Avram, C. Iliescu, E. Manea and C. Voitincu, CAS (IEEE) 2005 28th Edition, vol. 1, pp. 223-226, Sinaia, Romania, 2-4 October 2005

Data:10.10.2011

Marioara Avram