

Publicatii Daniel Ighigeanu

List of Books

1. *Instalatii si electrotehnologii de iradiere combinata cu electroni accelerati si microunde pentru protectia mediului*, D. Ighigeanu, D. Martin, E. Manaila, G. Craciun, Editura PERFORMANTICA; 2014; ISBN 978-606-685-185-5, 231 pag.
2. *Noi tehnologii de grefare si reticulare a amestecurilor de cauciuc prin iradiere cu electroni accelerati si microunde*, M.D. Stelescu, E. Manaila, D. Martin, G. Craciun, D. Ighigeanu, L. Alexandrescu, Editura PERFORMANTICA, Iasi (acreditata CNCIS), 2011, ISBN: 978-973-730-810-8, 235 pag.
3. *Constructive and functional peculiarities of electron linear accelerators used in conjunction with microwave sources*, D. Martin, D. Ighigeanu, M. Toma, C. Oproiu, in *Practical Aspects and Applications of Electron Beam Irradiation*, Research Signpost / Transworld Research Network, Kerala, India, 2011, pp. 1-16 (ISBN 978-81-7895-541-4).
4. *Gaseous Pollutants Treatment by Combined Electron Beams and Microwaves*, D. Ighigeanu, D. Martin, I. Calinescu, E. Manaila, G. Craciun, in *Practical Aspects and Applications of Electron Beam Irradiation*, Research Signpost / Transworld Research Network, Kerala, India, 2011, pp. 181-198 (ISBN 978-81-7895-541-4).
5. *Application of electron accelerators in conjunction with microwave sources in medical studies*, D. Martin, G. Craciun, I. Margaritescu, M. Neagu, E. Manaila, D. Ighigeanu, L. Tudor, N. Iacob, in *Practical Aspects and Applications of Electron Beam Irradiation* Research Signpost / Transworld Research Network, Kerala, India, 2011, pp. 213-234 (ISBN 978-81-7895-541-4).
6. *Polyelectrolytes obtained by ionizing and non-ionizing radiation*, G. Craciun, E. Manaila, D. Martin, D. Ighigeanu, in *Practical Aspects and Applications of Electron Beam Irradiation*, Research Signpost / Transworld Research Network, Kerala, India, 2011, pp.167-180 (ISBN 978-81-7895-541-4).
7. *Electron beam and microwave processing of rubber mixtures with polyfunctional monomers*, E. Manaila, G. Craciun, D. Martin, D. Ighigeanu, D. Zuga, in *Practical Aspects and Applications of Electron Beam Irradiation* Research Signpost / Transworld Research Network, Kerala, India, 2011, pp. 199-212 (ISBN 978-81-7895-541-4).
8. *Environmental Aspects of Microwave Heating in Polyelectrolyte Synthesis*, E. Mateescu, G. Craciun, D. Martin, D. Ighigeanu, M. Radoiu, I. Calinescu, H. Iovu, in *Advances in Microwaves & Radiofrequency Processing*, Monica Willert-Porada Eds, Springer-Berlin, 2006, pp. 349-355, ISBN 978-3-540-43252-4.
9. *The effects of combined electron beam and microwave irradiation on microorganisms inactivation*, D. Martin, A. Hategan, D. Ighigeanu, I. Togoe, E. Mateescu, S. Micalus, International Commission on Non-Ionizing Radiation Protection) ICNIRP 11/2001, printed by Markl-Druck, Munchen, Eds. Rudiger Matthes, Jurgen H. Bernhardt, Michael H. Repacholi, pp. 341-350 (ISBN 3-934994-00-8).

List of articles (selected from ISI Web of science)

10. *Synthesis and Characterization of Poly(Acrylamide-Co-Acrylic Acid) Flocculant Obtained by Electron Beam Irradiation*, G. Craciun, D. Ighigeanu, E. Manaila, M. D. Stelescu, *Materials Research-Ibero-american Journal of Materials*, Vol. 18, No. 5, 2015, pp. 984-993.
11. *Nanoparticles synthesis by electron beam radiolysis*, I. Călinescu, D. Martin, D. Ighigeanu, A. Gavrilă, A. Trifan, M. Patrascu, C. Munteanu, A. Diacon, E. Manaila, G. Craciun, *Central European Journal of Chemistry*, Vol. 12, No. 7, 2014, pp. 774-781.
12. *Radiation vulcanization of natural rubber with polyfunctional monomers*, E. Manaila, G. Craciun, M. D. Stelescu, D. Ighigeanu, M. Ficai, *Polymer Bulletin*, Vol. 71, 2014, pp. 57-82.
13. *E-Beam SO₂ and NO_x removal from flue gases in the presence of fine water droplets*, I. Calinescu, D. Martin, A. Chmielewski, D. Ighigeanu, *Radiation Physics and Chemistry*, Vol. 85, 2013, pp. 130-138.
14. *Evolution of the Levels of Free Radicals Generated on Wheat Flour and Wheat Bran by Electron Beam*, Mirela Brasoveanu, Gabriela Craciun, Elena Manaila, Daniel Ighigeanu, Monica R. Nemțanu, Maria N. Grecu, *Cereal Chemistry*, Vol. 90, No. 5, 2013, pp 469-473.
15. *Whole Body Microwave Irradiation for Improved Dacarbazine Therapeutical Action in Cutaneous Melanoma Mouse Model*, Monica Neagu, Carolina Constantin, Diana Martin, Lucian Albușescu, Nicusor Iacob, and Daniel Ighigeanu, *Radiology Research and Practice*, vol. 2013, pages: 414816, doi:10.1155/2013/414816.

16. *Flue Gases Treatment by Irradiation with Electron Beam in the Presence of Fine Water Droplets*, I. Calinescu, D. Martin, D. Ighigeanu, A. Bulearca, *Revista de chimie*, Vol. 63, No. 6, 2012, pp. 576-579.
17. *Gaseous Pollutants Removal by Electron Beam Based Hybrid Systems*, D. Ighigeanu, D. Martin, I. Calinescu, A. Bulearca, E. Manaila, G. Craciun, *Revista de chimie*, Vol. 63, No. 2, 2012, pp. 183-188.
18. *One-and Two-Temperature Models in Solids Under Laser Pulse Irradiation Which Effectively Present as Two-Photon Absorption Coefficient Anisotropy*, Nemtanu M., Craciun G., Manaila E., Oane M., Brasoveanu M., Oproiu C., Martin D. and Ighigeanu D, *Lasers in Engineering*, Vol. 22, No. 1-2, 2012, pp. 13-23.
19. *Synthesis of New Flocculant Materials by Copolymerization of Acrylamide and Acrylic Acid by Electron Beam Irradiation*, Craciun G., Manaila E., Martin D., Toader D., Ighigeanu D. *MATERIALE PLASTICE* Vol. 48, No. 2, 2011, pp. 183-188.
20. *Tracking method for the microwave-assisted synthesis of silver nanoparticles*, Patrascu. M, Calinescu I., Boscornea C., Lacatusu I., Martin D., Ighigeanu D., Vasile E., Radoiu M., *Journal of Optoelectronics and Advanced Materials*, Vol. 13 No. 5-6, 2011, pp. 666-671.
21. *VOCs Removal by Combined use of Electron Beam Microwave and Catalyst*, Calinescu, I; Ighigeanu, D; Martin, D, Matei C., Trifan A., Oproiu C., *Revue Roumanie de Chimie* , Vol. 54, No. 8, 2009, pp. 693-698.
22. *A new hybrid technique for volatile organic compounds removal by combined use of electron beams, microwave and catalysts*, D. Ighigeanu. I. Calinescu, D. Martin, C. Matei, *Nuclear Instruments and Methods in Physics Research B*, Vol. 266, No. 10, 2008, pp. 2524–2528.
23. *Application of Polyelectrolytes Obtained by Radiation Processing to Potable and Waste Water Treatment*, E. Manaila, D. Martin, G. Craciun, D. Ighigeanu, C. Matei, C. Oproiu, N. Iacob, H. Iovu, M. Sandu, E. Vulpasu, G. Racoviteanu, *IEEE Transactions on Industry Applications*, Vol. 41, No. 3, 2005, pp. 698-706.
24. *Application of accelerated electron beam and microwave irradiation to biological waste treatment*, D. Martin, I. Margaritescu, E. Cirstea, I. Togoe, D. Ighigeanu, M. Nemteanu, C. Oproiu, N. Iacob, *Vacuum*, Vol.77, No. 4, 11 March 2005, Elsevier LTD, pp. 501-506.
25. *SO₂ and NO_x removal by electron beam and electrical discharge induced non-thermal plasmas*, D. Ighigeanu, D. Martin, E. Zissulescu, C. Oproiu, E. Cirstea, H. Iovu, I. Calinescu, N. Iacob, *Vacuum*, vol.77, No. 4, 11 March 2005, Elsevier LTD, pp. 493-500.
26. *Polyelectrolytes derived from electron beam induced polymerization*, D. Martin, E. Cirstea – Manaila, D. Ighigeanu, G. Craciun, C. Oproiu, H. Iovu, Gh. Marin, N. Iacob, M. Nemteanu, *Vacuum*, Vol.77, No. 4, 11 March 2005, Elsevier LTD, pp. 475-484.
27. *Combined microwave and accelerated electron beam irradiation facilities for applied physics and chemistry*, D. Martin, D. Ighigeanu, E. Mateescu, G. Craciun, G. Marin, I. Calinescu, H. Iovu, *IEEE Transactions on Industry Applications*, Vol. 40, No. 1, January/February 2004, pp. 41-52.
28. *Vulcanization of rubber mixtures by simultaneous electron beam and microwave irradiation*, D. Martin, D. Ighigeanu, E. Mateescu, G. Craciun, A. Ighigeanu, *Radiation Physics and Chemistry*, Vol. 65/1, 2002, pp. 63-65.
29. *Polymeric flocculants processing by accelerated electron beams and microwave heating*, D. Martin, E. Mateescu, G. Craciun, D. Ighigeanu, A. Ighigeanu, *Radiation Physics and Chemistry*, Vol. 64/5, 2002, pp.423-428.
30. *A method for the 2.45 GHz Magnetron Output Power Control*, D. Martin, A. Jianu, D. Ighigeanu, "IEEE Transactions on Microwave Theory and Techniques", Vol. 49, No. 3, March 2001, pp.542-544.
31. *Technical solutions for the control and command system of a plasma focus device*, D. Martin, V. Zoita, D. Cotruta, A. Jianu, D. Ighigeanu, V. Bestea, *Nucleonika-International Journal of Nuclear Research*, 2001, 46, pp. 89-91.
32. *The influence of microwave heating on the characteristics of polyelectrolytes*, D. Martin, E. Mateescu, D. Ighigeanu, A. Jianu, *Journal of Microwave Power and Electromagnetic Energy*, Vol. 35, No. 4, 2000, pp. 216-224.

List of proceedings papers (selected from ISI Web of science)

33. *Radiation exposure facilities for medical studies in vitro and vivo*, D. Martin, G. Craciun, S. Cinca, I. Margaritescu, M. Neagu, C. Matei, D. Ighigeanu, E. Manaila, *OPTIM 2008 Proceedings of the 11th International Conference on Optimization of Electrical and Electronic Equipment*, Brasov, Romania, 22-23 May 2008, Vol. 1, Publisher: IEEE, Piscataway, NJ, USA, IEEE Catalog Number: 08EIX1996, ISBN: 978-973 -131-029-9, pp.77-86.
34. *Radiation processing of rubber mixtures with polyfunctional monomers*, E. Manaila, D. Martin, D. Zuga, G. Craciun, D. Ighigeanu, C. Matei, *OPTIM 2008 Proceedings of the 11th International Conference on Optimization of Electrical*

and Electronic Equipment, Brasov, Romania, 22-23 May 2008, Vol. 1, Publisher: IEEE, Piscataway, NJ, USA, IEEE Catalog Number: 08EIX1996, ISBN: 978-973-131-029-9, pp.125-130.

35. *Gaseous Pollutants, Treatment at Semi-Pilot Scale by Combined Electron Beams and Microwave*, D. Ighigeanu, D. Martin, I. Calinescu, C. Matei, WWAI '08 Proceedings of the 2nd International Conference on Waste Management, Water Pollution, Air Pollution, Inodor Climate, Book Series: Energy and Environmental Engineering Series, Corfu, Greece, Oct. 2008, ISBN: 978-960-474-017-8, pp. 112-118.
36. *Waste food processing by Successive and Simultaneous Electron Beam Irradiation and Microwave Heating*, D. Martin, G. Craciun, I. Togoe, E. Manaila, D. Ighigeanu, A. Ighigeanu, WWAI '08 Proceedings of the 2nd International Conference on Waste Management, Water Pollution, Air Pollution, Inodor Climate, Book Series: Energy and Environmental Engineering Series, Corfu, Greece, Oct. 2008, ISBN: 978-960-474-017-8, pp. 119-126.
37. *Vaccine Biotechnology by Accelerated Electron Beam and Microwave Irradiation*, G. Craciun, I. Togoe, L. Tudor, D. Martin, E. Manaila, D. Ighigeanu, N. Iacob, C. Oproiu, AMER INST PHYSICS (AIP) CONFERENCE PROCEEDINGS of the 6th International Conference of the Balkan-Physical-Union (BPU6), Istanbul, TURKEY, Aug. 2006, Vol. 899, April 2007. ISSN: 0094-243X, ISBN: 978-0-7354-0404-5, pp. 769.
38. *Synergistic Effects of Combined Electron Beam and Microwave Irradiation on Microorganism Inactivation*, G. Craciun, D. Martin, E. Manaila, I. Togoe, D. Ighigeanu, N. Iacob, C. Oproiu, AIP CONFERENCE PROCEEDINGS of the BPU6, Istanbul, TURKEY, Aug. 2006, Vol. 899, April 2007. ISSN: 0094-243X, ISBN: 978-0-7354-0404-5, pp. 770.
39. *Application of Electron Beams, Microwaves and Catalysis to Volatile Organic Compounds Removal*, D. Ighigeanu, I. Calinescu, D. Martin, C. Matei, AIP CONFERENCE PROCEEDINGS of the BPU6, Istanbul, TURKEY, Aug. 2006, Vol. 899, April 2007. ISSN: 0094-243X, ISBN: 978-0-7354-0404-5, pp. 780.
40. *Electron Beam Sterilization of the Plates with Agarose Gel used for Electrophoresis*, D. Ighigeanu, D. Martin, D. Stan, C. Matei, E. Manaila, G. Craciun, N. Iacob, C. Oproiu, A. Ighigeanu, AIP CONFERENCE PROCEEDINGS of the BPU6, Istanbul, TURKEY, Aug. 2006, Vol. 899, April 2007. ISSN: 0094-243X, ISBN: 978-0-7354-0404-5, pp. 781.
41. *Ethylene-Propylene Rubber Processing by Electron beam Irradiation*, E. Manaila, M. D. T. Zuga, D. Martin, G. Craciun, D. Ighigeanu, C. Matei, AIP CONFERENCE PROCEEDINGS of the BPU6, Istanbul, TURKEY, Aug. 2006, Vol. 899, April 2007. ISSN: 0094-243X, ISBN: 978-0-7354-0404-5, pp. 785.
42. *Potable and Waste Treatment with Polyelectrolytes Obtained by Radiation Technologies*, E. Manaila, D. Martin, G. Craciun, D. Ighigeanu, C. Matei, A. Anton, E. Vulpasu, C. Oproiu, A. Ighigeanu, AIP CONFERENCE PROCEEDINGS of the BPU6, Istanbul, TURKEY, Aug. 2006, Vol. 899, April 2007. ISSN: 0094-243X, ISBN: 978-0-7354-0404-5, pp. 786.
43. *Effects of Electron Beam and Microwave Irradiation on Human Blood Proteins*, D. Martin, D. Stan, R. Radu, S. Cinca, I. Margaritescu, D. Chirita, G. Craciun, E. Manaila, D. Ighigeanu, N. Iacob, C. Oproiu, AIP CONFERENCE PROCEEDINGS of the BPU6, Istanbul, TURKEY, Aug. 2006, Vol. 899, April 2007. ISSN: 0094-243X, ISBN: 978-0-7354-0404-5, pp. 815.
44. *Radiation Interaction with Therapeutic Drugs*, D. Martin, E. Manaila, M. Moisescu, T. Savopol, E. Kovacs, S. Cinca, C. Matei, I. Margaritescu, N. Iacob, D. Ighigeanu, G. Craciun, AIP CONFERENCE PROCEEDINGS of the BPU6, Istanbul, TURKEY, Aug. 2006, Vol. 899, April 2007. ISSN: 0094-243X, ISBN: 978-0-7354-0404-5, pp. 816.
45. *Environmental Aspects of Microwave Heating in Polyelectrolyte Synthesis*, E. Mateescu, G. Craciun, D. Martin, D. Ighigeanu, M. Radoiu, I. Calinescu, H. Iovu, 8th International Conference on Microwave and High Frequency Heating, BAYREUTH, GERMANY SEP 2001, Advances in Microwaves & Radiofrequency Processing, 2006, ISBN 978-3-540-43252-4. pp. 349-355.
46. *Microwaves effects on human living cells and therapeutic drugs*, D. Ighigeanu, D. Martin, C. Matei, N. Iacob, G. Craciun, M. Moisescu, T. Savopol, E. Kovacs, I. Margaritescu, OPTIM 2006 Proceedings of the 10th International Conference on optimization of Electrical and Electronic Equipments, Vol I: Electrotechnics, Brasov, May 20-21, 2006, ISBN 978-973-635-703-9, pp. 225-232.
47. *Microwave and electron beam effects on microorganisms survival in natural products*, D. Martin, G. Craciun, E. Manaila, D. Ighigeanu, C. Matei, C. Oproiu, N. Iacob, I. Togoe, I. Margaritescu, OPTIM 2006 Proceedings Vol I: Electrotechnics, Brasov, May 20-21, 2006, ISBN 978-973-635-703-9, pp. 233-240.
48. *Effects induced by electron beam irradiation on human blood proteins*, G. Craciun, D. Martin, E. Manaila, D. Ighigeanu, C. Oproiu, N. Iacob, D. Stan, I. Baciu, E. Oprea, OPTIM 2006 Proceedings Vol I: Electrotechnics, Brasov, May 20-21, 2006, ISBN 978-973-635-703-9, pp. 241-248.
49. *The combined use of electron beam, microwave irradiation and catalytic oxidation for the removal of volatile organic compounds from gases*, I. Calinescu, D. Martin, D. Ighigeanu, OPTIM 2006 Vol I: Electrotechnics, Brasov, May 20-21, 2006, ISBN 978-973-635-703-9, pp. 249-256.

50. *Applications of polyelectrolytes obtained by radiation processing to potable and waste water treatment*, E. Manaila, D. Martin, G. Craciun, D. Ighigeanu, C. Matei, C. Oproiu, N. Iacob, H. Iovu, M. Sandu, E. Vulasu, G. Racoviteanu, OPTIM 04 Proceedings of the 9th International Conference on optimization of Electrical and Electronic Equipments, Vol I: Electrotechnics, Brasov, May 20-21, 2004, ISBN: 978-973-635-286-7, pp. 103-110.
51. *Microwave induced changes of some biophysical properties of cellular membrane*, T. Savopol, R. Pologea-Moraru, E. Kovacs, D. Martin, E. Manaila, D. Ighigeanu, G. Sajin, OPTIM 04 Proceedings Vol I: Electrotechnics, Brasov, May 20-21, 2004, ISBN: 978-973-635-286-7, pp. 111-114.
52. *Catalytic oxidation of volatile organic compounds from air streams in the presence of microwaves*, I. Calinescu, R. Calinescu, I. Iliuta, D. Martin, D. Ighigeanu, OPTIM 04 Proceedings Vol I: Electrotechnics, Brasov, May 20-21, 2004, ISBN: 978-973-635-286-7, pp. 143-148.
53. *Application of accelerated electron beams and microwaves to environmental protection and medicine*, D. Martin, D. Ighigeanu, E. Manaila, G. Craciun, C. Oproiu, D. Stan, I. Baci, E. Oprea, I. Margaritescu, OPTIM 04 Proceedings Vol I: Electrotechnics, Brasov, May 20-21, 2004, ISBN: 978-973-635-286-7, pp. 149-154.
54. *Short pulse generators and elongated cylindrical cavities for electrical discharge induced non-thermal plasma*, D. Ighigeanu, D. Martin, C. Matei, C. Oproiu, E. Manaila, G. Craciun, N. Iacob, E. Zissulescu, R. Macarie, I. Calinescu, OPTIM 04 Proceedings Vol I: Electrotechnics, Brasov, May 20-21, 2004, IDS Number: BHQ23, ISBN: 978-973-635-286-7, pp. 155-162.

List of articles in other databases (Scopus)

55. *The crosslink density of ethylene-vinyl-acetate copolymer/triallylcyanoate mixture cross-linked by electron processing*, MD Stelescu, E. Manaila, G. Craciun, D. Ighigeanu, D. Gurau, Leather and Footwear Journal, Vol. 17, No. 1, 2014, pp. 17-26, ISSN 1583-4433.
56. *The mechanical properties of ethylene-vinyl-acetate copolymer/triallylcyanoate mixture cross-linked by electron beam and microwave processing*, G. Craciun, D. Ighigeanu, Leather and Footwear Journal, 13 (1), 2013; ISSN 1583-4433, pp. 49-60.
57. *Wastewater treatment efficiency using polymeric materials obtained by electron beam irradiation as flocculants*, G. Craciun, E. Manaila, D. Ighigeanu, Leather and Footwear Journal, Vol. 11, No. 4, 2011 ISSN 1583-4433, pp. 267-278,
58. *Polymeric flocculants based on acrylamide and acrylic acid obtained by electron beam irradiation*, G. Craciun, E. Manaila, D. Ighigeanu, Leather and Footwear Journal, Vol. 11, No. 2, 2011, ISSN 1583-4433, pp. 121-133.
59. *The influence of TMPT coagent of the mechanical properties of the EPDM rubber cross-linked by irradiation*, E. Manaila, MD Stelescu, D. Ighigeanu, G. Craciun, D. Berechet, Leather and Footwear Journal, Vol. 11, No. 3, 2011, ISSN 1583-4433, pp. 201-210.
60. *SO₂ and NO_x Removal by Microwave and Electron Beam Processing*, D. Ighigeanu, I. Calinescu, D. Martin, C. Matei, Journal of Microwave Power and Electromagnetic Energy, Vol. 43., No. 1, 2009. ISSN: 0832-7823, pp. 44-50.
61. *Combined Microwave and Electron Beam Exposure Facilities for Medical Studies and Applications*, D. Martin, S. Cinca, I. Margaritescu, M. Neagu, N. Iacob, D. Ighigeanu, C. Matei, G. Craciun, E. Manaila, D. Chirita, M. Moisescu, Journal of Microwave Power and Electromagnetic Energy, Vol. 43, No.3, 2009. ISSN: 0832-7823, pp. 12-20.
62. *Cell Investigations Simultaneously with Exposure to 2.45 GHz Microwaves* D. Martin, S. Cinca, I. Margaritescu, M. Neagu, C. Matei, D. Ighigeanu, G. Craciun, E. Manaila, D. Chirita, M. Moisescu, Journal of Microwave Power and Electromagnetic Energy, Vol. 43, No.3, 2009. ISSN: 0832-7823, pp. 21-25.
63. *Combined Effects of Microwaves, Electron Beams and Polyfunctional Monomers on Rubber Vulcanization*, E. Manaila, D. Martin, D. Zuga Stelescu, G. Craciun, D. Ighigeanu, C. Matei, Journal of Microwave Power and Electromagnetic Energy, Vol. 43, No.3, 2009. ISSN: 0832-7823, pp. 26-34.
64. *Vaccine Preparation by Radiation Processing*, G. Craciun, D. Martin, I. Togoe, L. Tudor, E. Manaila, D. Ighigeanu, C. Matei, Journal of Microwave Power and Electromagnetic Energy, Vol. 43, No. 2, 2009. ISSN: 0832-7823, pp. 65-70.
65. *Hybrid Technology with Microwaves, Electron Beams and Catalysts for VOCs Removal*, I. Calinescu, D. Ighigeanu, D. Martin, C. Matei, A. Trifan, Journal of Microwave Power and Electromagnetic Energy, Vol. 43., No. 3, 2009, ISSN: 0832-7823, pp. 4-11.
66. *Gaseous Pollutants Removal by Combined Ionizing and Non-ionizing Radiation Treatment*, D. Ighigeanu, D. Martin, I. Calinescu, C. Matei, WSEAS Transactions on Environment and Development, Vol. 4, Issue 11, Nov. 2008, ISSN: 1790-5079, pp. 981-991.

67. *Depreciated Food Treatment by Combined Ionizing and Non-ionizing Radiations*, D. Martin, G. Craciun, I. Togoe, E. Manaila, D. Ighigeanu, A. Ighigeanu, WSEAS Transactions on Environment and Development, Vol. 4, Issue 11, Nov. 2008, ISSN: 1790-5079, pp. 992-1001.

List of articles (other journals with references)

68. *Electron beam and microwave combined irradiation technology for environment protection*, D. Ighigeanu, D. Martin, I. Calinescu, E. Manila, G. Craciun, A. Ighigeanu, M. Toma, T. Negreanu-Pirjol, *Electrotechnica & Electronica*, ISSN 0861-4717, 47 (5-6), 256-261, 2012.
69. *Uses of fine water droplets in electron beam treatment of flue gases*, I. Calinescu, D. Martin, D. Ighigeanu, M. Toma, A. Trifan, *Electrotechnica & Electronica*, ISSN 0861-4717, 47 (5-6), 249-255, 2012.
70. *Nanoparticles synthesis by electron beam radiolysis*, I. Calinescu, D. Martin, D. Ighigeanu, A. Gavrilă, A. Trifan, M. Patrascu, *Electrotechnica & Electronica*, ISSN 0861-4717, 47 (5-6), 241-248, 2012.
71. *Generation of intense relativistic electron beams by 1 PW laser-target interactions at "CETAL" facility*, M.A. Popovici, D. Martin, C. Grigoriu, M. Toma, G. Căta-Danil, D. Ighigeanu, R. Vasilache, G. Florescu, *Electrotechnica & Electronica*, ISSN 0861-4717, 47 (5-6), 262-267, 2012.
72. *Effect of irradiation dose on cross-link density of EPDM rubber*, E. Manaila, M. D. Stelescu, G. Craciun, D. Ighigeanu, M. Georgescu, *Materials, Methods and Technologies*, ISSN 1313-2539, 6 (1), 186-195, 2012.
73. *Characteristics of silicone rubber blends vulcanized with electron beam and microwave*, E. Manaila, M. D. Stelescu, G. Craciun, D. Ighigeanu, *Ecology & Safety*, ISSN 1313-2563, 6 (1), 134-142, 2012.
74. *Effects of Electron Beam Irradiation on Human Blood Proteins*, G. Craciun, D. Martin, D. Stan, I. Baciuc, E. Manaila, D. Ighigeanu, I. Margaritescu, D. Chirita, C. Matei, N. Iacob, C. Oproiu, *Elektrotechnica & Electronica* (41), No. 5-6/2006, pp. 219-223, ISSN 0861-4717.
75. *Radiation Effects on Human Leukocyte Cultures with Bleomycin*, E. Manaila, D. Martin, G. Craciun, M. Moisescu, E. Kovacs, T. Savopol, D. Ighigeanu, I. Margaritescu, N. Iacob, I. Stoian, C. Matei, C. Oproiu, *Elektrotechnica & Electronica* (41), No. 5-6/2006, pp. 214-218, ISSN 0861-4717.
76. *Innovative Technologies with Electron Beam and Microwave for Food Safety*, D. Martin, G. Craciun, I. Togoe, E. Manaila, D. Ighigeanu, I. Margaritescu, N. Iacob, C. Matei, *Elektrotechnica & Electronica* (41), No. 5-6/2006, pp. 204-208, ISSN 0861-4717.
77. *Combined microwave discharge and accelerated electron beam irradiation for environmental protection*, D. Ighigeanu, *UPB Scientific Buletin, Series C: Electrical Engineering*, Vol. 67, No. 3, 2005, ISSN 1454-234x, pp. 23-32.
78. *Application of Accelerated Electron Beam and Microwave Irradiation to Biological Decontamination of foods, Medical Objects and Waste Waters*, D. Martin, I. Margaritescu, M. Nemtanu, I. Togoe, C. Oproiu, D. Ighigeanu, E. Mateescu, G. Craciun, N. Iacob, *Journal of Environmental Protection and Ecology*, vol 5 (2003), ISSN 1311-5065;
79. *Preparation of polyelectrolytes with low monomer residual concentration*, D. Martin, E. Cirstea, G. Craciun, D. Ighigeanu, A. Ighigeanu, I. Calinescu, H. Iovu, *Journal of Environmental Protection and Ecology*, Vol. 4, No 3 (2003), pp. 689 – 699, ISSN 1311-5065.
80. *Air pollution Control by DC, Pulse and Microwave Discharges*, D. Ighigeanu, D. Martin, R. Macarie, E. Zissulescu, I. Calinescu, H. Iovu, E. Cirstea, G. Craciun, A. Ighigeanu, *Journal of Environmental Protection and Ecology*, Vol. 4, No 3 (2003), pp. 525 – 534, ISSN 1311-5065.
81. *Air pollution control by DC, pulse and microwave induced non-thermal plasmas*, D. Ighigeanu, D. Martin, R. Macarie, E. Zissulescu, E. Mateescu, G. Craciun, *Romanian Reports in Physics*, Vol. 64, Nos. 6-10, 2002, ISSN 1221-1451 43 822, pp. 447-452.
82. *SO₂ and NO_x removal by electron beam and microwave induced non-thermal plasmas*, D. Martin, D. Ighigeanu, R. Macarie, E. Zissulescu, E. Mateescu, G. Craciun, *Romanian Reports in Physics*, Vol. 64, Nos. 6-10, 2002, ISSN 1221-1451 43 822, pp. 453-466.
83. *Microorganisms inactivation by electron beam irradiation and microwave heating*, I. Margaritescu, D. Martin, D. Ighigeanu, A. Hategan, C. Oproiu, E. Mateescu, G. Craciun, A. Ighigeanu, *Bulgarian Journal of Physics*, Vol. 27, No. 3, 2000; ISSN 1310-0157, pp. 211-214.
84. *Radiation vulcanization efficiency improvement by additional use of microwave energy*, D. Martin, D. Ighigeanu, H. Iovu, I. Calinescu, C. Oproiu, E. Mateescu, A. Ighigeanu, G. Craciun, *Bulgarian Journal of Physics*, Vol. 27, No. 3, 2000; ISSN 1310-0157, pp. 215-218.

85. *Ionizing and non ionizing radiation application to polymeric material preparation*, D. Martin, E. Mateescu, G. Craciun, H. Iovu, I. Calinescu, D. Ighigeanu, C. Oproiu, A. Ighigeanu, Bulgarian Journal of Physics, Vol. 27, No. 3 , 2000; ISSN 1310-0157.
86. *Microwave apparatus for applied physics*, D. Martin, C. Oproiu, D. Ighigeanu, Bulgarian Journal of Physics, Vol. 27, No. 3 , 2000; ISSN 1310-0157.
87. *Non-destructive emittance determination of a high intensity electron beam source*, S. Marghitu, C. Dinca, C. Oproiu, D. Martin, D. Ighigeanu, Bulgarian Journal of Physics, Vol. 27, No. 3 , 2000; ISSN 1310-0157.

138 papers presented to international Conferences and published in Proceedings (73) or Book of Abstracts (65)

List of patents (selected from ISI Web of science):

- 1) Title: Installation and method for microwave irradiation of a biological material simultaneously with its investigation under inversed microscope with fluorescence module. Number: B.I. no. 126764 from 30.07.2015, Assignee: INFLPR. Inventor(s): D. Martin, M. Neagu, C. Matei, C. Constantin, N. Iacob, D. Ighigeanu, E. Manaila, G. Craciun. *Publicat in BOPI-sectiunea INVENTII nr. 7/2015*.
- 2) Title: EVA materials (Ethylene-vinyl acetate copolymer) obtained by new and complex cross-linking methods of elastomers by electron beam methods in the presence of polifunctionals monomers, B.I. no. 125019 from 30.01.2012, Assignee: INFLPR, Inventor(s) : Manaila Elena, Stelescu Maria Daniela, Martin Diana, Craciun Gabriela, Ighigeanu Daniel Paul, Matei Constantin. *Publicat in BOPI-sectiunea INVENTII nr. 1/2012*.
- 3) Title: Growing of the conversion performance of the gaseous pollutants from industrial flue gases by combined electron beam and microwave treatment, Number: A/00352 din 21.04.2010, Assignee: INFLPR, Inventor(s): Ighigeanu Daniel, Martin Diana, Calinescu Ioan, Matei Constantin, Manaila Elena, Craciun Gabriela.
- 4) Title: Process for removing SO₂ and NO_x from industrial flue gases by treatment with medium energy accelerated electrons in the presence of fine water droplets, Number: RO129069-A2, Assignee: INFLPR, Inventor(s): Ighigeanu D.; Calinescu I; Martin D; Matei C.
- 5) Title: Monitoring system of the X, gamma and neutrons irradiation levels, with data tele-transmission, for radiologic risk zones, Number: A/01275 din 06.12.2010, Assignee: INFLPR, Inventor(s): Craciun Gabriela, Kluger Alexandru, Craciun Marian, Kluger Andrei, Manaila Elena, Ighigeanu Daniel, Martin Diana.