

List of publications**I. Publications in scientific journals**

1. *Chemical composition of the essential oil of Artemisia Absinthium from Romania*, Berechet M.D., Stelescu M.D., Manaila E., Craciun G., REVISTA DE CHIMIE, 66(11), 1814-1818, **2015**;
2. *Characteristics of Wood Sawdust/Natural Rubber Composites Processed by Electron Beam Irradiation*, Craciun G., Manaila E., Stelescu M.D., Vasilescu A.M., MATERIALE PLASTICE, 52(2), 234-238, **2015**;
3. *Synthesis and Characterization of Poly(Acrylamide-Co-Acrylic Acid) Flocculant Obtained by Electron Beam Irradiation*, Craciun G., Ighigeanu D., Manaila E., Stelescu M.D., MATERIALS RESEARCH-IBERO-AMERICAN JOURNAL OF MATERIALS, 18(5), 984-993, **2015**;
4. *Radiation vulcanization of natural rubber with polyfunctional monomers*, Manaila, E; Craciun, G; Stelescu, MD; Ighigeanu, D; Ficai, M, POLYMER BULLETIN, 71(1), 57-82, **2014**;
5. *New Green Polymeric Composites Based on Hemp and Natural Rubber Processed by Electron Beam Irradiation*, Stelescu, MD; Manaila, E; Craciun, G; Dumitrascu, M, SCIENTIFIC WORLD JOURNAL, Article Number: 684047, **2014**;
6. *Polymeric composites based on flax wastes and natural rubber*, Manaila, E; Craciun, G; Stelescu, MD; Dinca, CL; Surdu, L; Gurau, D, INDUSTRIA TEXTILA, 65(1), 53-60, **2014**;
7. *Nanoparticles synthesis by electron beam radiolysis*, Calinescu, I; Martin, D; Ighigeanu, D; Gavrilă, Al; Trifan, A; Patrascu, M; Munteanu, C; Diacon, A; Manaila, E; Craciun, G, CENTRAL EUROPEAN JOURNAL OF CHEMISTRY, 12(7), 774-781, **2014**;
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9. *Evolution of the Levels of Free Radicals Generated on Wheat Flour and Wheat Bran by Electron Beam*, M. Brasoveanu, G. Craciun, E.Manaila, D. Ighigeanu, M. Nemtanu, M. Grecu, Cereal Chemistry, 90 (5), 469-473, **2013**;
10. *Vulcanization of ethylene-propylene-terpolymer-based rubber mixtures by radiation processing*, M. D. Stelescu, E. Manaila, G. Craciun, Journal of Applied Polymer Science, 128(4), 2325-2336, **2013**;
11. *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; Ighigeanu, D; LASERS IN ENGINEERING 22 (41306), **2012**, 13-23;
12. *Crosslinking and grafting ethylene vinyl acetate copolymer with accelerated electrons in the presence of polyfunctional monomers*, Stelescu, MD; Manaila, E; Craciun, G; Zuga, N; ", POLYMER BULLETIN 68 (1), **2012**, 263-285;
13. *Gaseous Pollutants Removal by Electron Beam Based Hybrid Systems*, Ighigeanu, D; Martin, D; Calinescu, I; Bulearca, A; Manaila, E; Craciun, G., REVISTA DE CHIMIE 63 (2), **2012**, 187-192;.
14. *Synthesis of New Flocculant Materials by Copolymerization of Acrylamide and Acrylic Acid by Electron Beam Irradiation*, G. Craciun, E. Manaila, D. Martin, D. Toader, D. Ighigeanu, *Materiale Plastice*, 48 (2), **2011**, 183-188.
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17. *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**, pp. 475-484, Elsevier LTD, ISSN 0042 – 207X.
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19. *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, pp. 698-706, **2004**.
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22. *Modification of some properties of polyamide-6 by electron beam induced grafting*, D.M. Timus, C. Cincu, D.A. Bradly, G. Craciun, E. Mateescu (Manaila), *Applied Radiation and Isotopes*, 53 (**2000**), pag. 937-944;

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24. *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

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28. *Sinergistic effects of combined electron beam and microwave irradiation on microorganisms inactivation*, G. Craciun, D.I. Martin, E.N. Manaila, I. Togoe, D.I. Ighigeanu, N.I. Iacob, A.I. Ighigeanu, C.V. Oproiu, American Institute of Physics BPU-6 Conference Proceedings, (ISBN 978-0-7354-0405-2), Vol. 899, **2007**, pp. 770.
29. *Ethylene – propylene terpolymer rubber processing by electron beam irradiation*, E.N. Manaila, M.D. Zuga, L. Alexandrescu, D.I. Martin, G.D. Craciun, F. Ionescu, D.I. Ighigeanu, C.I. Matei, American Institute of Physics BPU-6 Conference Proceedings, (ISBN 978-0-7354-0405-2), Vol. 899, **2007**, pp. 785.
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31. *Effects of electron beam and microwave irradiation on human blood proteins*, D.I. Martin, D.E. Stan, R.R. Radu, S.A. Cinca, I.D. Margaritescu, D.I. Chirita, G.D. Craciun, E.N. Manaila, D.I. Ighigeanu, N.I. Iacob, C.V. Oproiu, American Institute of Physics BPU-6 Conference Proceedings, (ISBN 978-0-7354-0405-2), Vol. 899, **2007**, pp. 815.
32. *Radiation interaction with therapeutic drugs and cell membranes*, D.I. Martin, E.N. Manaila, M.I. Moisescu, T.D. Savopol, E.A. Covacs, S.A. Cinca, C.I. Matei, I.D. Margaritescu, N.I. Iacob, D.I. Ighigeanu, G.D. Craciun, American Institute of Physics BPU-6 Conference Proceedings, (ISBN 978-0-7354-0405-2), Vol. 899, **2007**, pp. 816.
33. *Environmental aspects of microwave heating in polyelectrolyte synthesis*, E. Mateescu (Manaila), G. Craciun, D. Martin, D. Ighigeanu, M. Radoiu, I. Calinescu, H. Iovu, *Advances in Microwave & Radio Frequency Processing*, Monika Willert – Porada Editor), **2006**, Publisher: SPRINGER-VERLAG BERLIN, HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY, Editor: WillertPorada M; IDS Number: BDZ25, ISBN: 3-540-43252-3, pp. 349-354.
34. *Microwaves effects on human living cells and therapeutic drugs*, D. Ighigeanu, D. Martin, Moisesacu, MI, Manaila EN., Matei, CI, Iacob NI., Craciun, GD, T. Savopol, E. Covacs, I. Margaritescu, Proceedings of the 10th International Conference on optimization of Electrical and Electronic Equipments (Applications of Electrical Engineering in Biology Section), Brasov, May 20-21, **2006**, Vol I: Electrotechnics, Publisher: TRANSILVANIA UNIV PRESS-BRASOV, BD EROILOR NR 9, BRASOV, RO-500030, ROMANIA, IDS Number: BHU27, ISBN 973-635-703-1, 978-973-635-703-9, pp. 225-232.
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38. *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 of the 9th International Conference on optimization of Electrical and Electronic Equipments (Electromagnetic Processing of Materials Section), Brasov, May 20-21, **2004**, Vol I: Electrotechnics, Publisher: TRANSILVANIA UNIV PRESS-BRASOV, BD EROILOR NR 9, BRASOV, RO-500030, ROMANIA IDS Number: BHQ23, ISBN: 978-973-635-286-7, 973-635-286-2, pp. 155-162.

Refereed papers

1. *The crosslink density of ethylene-vinyl-acetate copolymer/triallylcyanurate mixture cross-linked by electron processing*, MD Stelescu, E. Manaila, G. Craciun, D. Ighigeanu, D. Gurau, *Leather and Footwear Journal*, 14 (1), 17-26, **2014**;
2. *The influence of electron beam irradiation dose and polyfunctional monomers concentrations on the physico-mechanical characteristics of the epdm/hpde blends*, M. D. Stelescu, E. Manaila, G. Craciun, D. Gurau, *Leather and Footwear Journal*, ISSN 1583-4433, 13 (4), 345-358, **2013**;

3. *Study on the improvement of physical-mechanical characteristics in the EVA/PVC blends irradiation with electron beam in the presence of triallylisocyanurate*, M. D. Stelescu, D. Gurau, G. Craciun, E. Manaila, *Leather and Footwear Journal*, ISSN 1583-4433, 13 (2), 111-124, **2013**;
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5. *Electron beam and microwave combined irradiation technology for environment protection*, D. Ighigeanu, D. Martin, I. Calinescu, E. Manaila, G. Craciun, A. Ighigeanu, M. Toma, T. Negreanu-Pirjol, *Electrotechnica&Electronica*, 47 (5-6), 256-261, **2012**; ISSN 0861-4717;
6. *Characteristics of silicone rubber blends vulcanized with electron beam and microwave*, E. Manaila, M. D. Stelescu, G. Craciun, D. Ighigeanu, *Ecology & Safety*, 6 (1), 134-142, **2012**; ISSN 1313-2563
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10. *The influence of TMPT coagent on the mechanical properties of the EPDM rubber cross-linked by irradiation*, E. Manaila, D.M. Stelescu, D. Ighigeanu, G. Craciun, D. Berechet, *Leather and Footwear Journal*, Vol 11(3), **2011**, pag 201-210, ISSN 1583-4433;
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12. *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**, pp. 12-20, Publisher: International Microwave Power Institute, Guest Editor: Dr. Satoshi Horikoshi, Tokyo University of Science, Chiba, Japon, ISSN: 0832-7823.
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16. *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.
17. *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.
18. *Effects of Electron Beam Irradiation on Human Blood Proteins*, G. Craciun, D. Martin, D. Stan, I. Baci, 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.
19. *Air pollution Control by DC, Pulse and Microwave Discharges*, D. Ighigeanu, D. Martin, R. Macarie, E. Zissulescu, I. Calinescu, H. Iovu, E. Cirstea (Manaila), G. Craciun, A. Ighigeanu, *Journal of Environmental Protection and Ecology*, Vol. 4, No 3 (**2003**), pp. 525 - 534; ISSN 1311-5065.
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21. *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 (Manaila), G. Craciun, N. Iacob, *Journal of Environmental Protection and Ecology*, vol 5 (**2003**), ISSN 1311-5065.
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II. Chapters in scientific books

1. D. Martin, G. Craciun, I. Margaritescu, M. Neagu, E. Manaila, D. Ighigeanu, L. Tudor, N. Iacob, Chapter 9: *Application of Electron Accelerators in Conjunction with Microwave Sources in Medical Studies* in "Practical Aspects and Applications of Electron Beam Irradiation" (eds. M.R. Nemțanu, M. Brașoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India
2. E. Manaila, D. Zuga Stelescu, D. Martin, G. Craciun, D. Ighigeanu, Chapter 8: *Electron Beam and Microwaves Processing of Rubber Mixtures with Polyfunctional Monomers* in "Practical Aspects and Applications of Electron Beam Irradiation" (eds. M.R. Nemțanu, M. Brașoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India
3. D. Ighigeanu, D. Martin, I. Calinescu, E. Manaila, G. Craciun, Chapter 7: *Gaseous Pollutants Treatment by Combined Electron Beams and Microwaves* in "Practical Aspects and Applications of Electron Beam Irradiation" (eds. M.R. Nemțanu, M. Brașoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India
4. G. Craciun, E. Manaila, D. Martin, D. Ighigeanu, Chapter 6: *Polyelectrolytes Obtained by Ionizing and Non-Ionizing Radiation* in "Practical Aspects and Applications of Electron Beam Irradiation" (eds. M.R. Nemțanu, M. Brașoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India
5. D.M. Stelescu, E. Manila, D. Martin, G. Craciun, D. Ighigeanu, L. Alexandrescu, "Noi tehnologii de grefare si reticulare a amestecurilor de cauciuc prin iradiere cu electroni accelerate si microunde", autori: D.M. Stelescu, E. Manila, D. Martin, G. Craciun, D. Ighigeanu, L. Alexandrescu, Editura Performantica a Institutului National de Inventica Iasi, ISBN 978-973-730-810-8, 2011;
6. E. Mateescu (Manaila), G. Craciun, D. Martin, D. Ighigeanu, M. Radoiu, I. Calinescu, H. Iovu, Chapter 1: *Environmental Aspects of Microwave Heating in Polyelectrolytes Synthesis*, pp 349-354 in „*Advances in Microwave & Radio Frequency Processing*” (eds. Monika Willert – Porada), Publisher: SPRINGER-VERLAG BERLIN, HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY, ISBN 3-540-43252-3, Springer, Berlin, 2006.

III. Papers in Proceedings of scientific meetings, symposia, workshops or conferences

1. *Novel flocculants based on acrylamide and acrylic acid obtained by electron beam irradiation*, E. Manaila, G. Craciun, D. Ighigeanu, M.D. Stelescu, Proceedings of the 5th International Conference on Advanced Materials and Systems, ICAMS 2014, 23-25 october **2014**, Bucharest, Romania. ISSN: 2068-0783; 461-466;
2. *Synthesis and swelling properties of poly[acrylamide-co-acrylic acid] superabsorbents obtained by electron beam irradiation*, E. Manaila, G. Craciun, D. Ighigeanu, M.D. Stelescu, Proceedings of the 5th International Conference on Advanced Materials and Systems, ICAMS 2014, 23-25 october **2014**, Bucharest, Romania. ISSN: 2068-0783; 85-90
3. *Radiation vulcanization of natural rubber using TMPT as polyfunctional monomer*, MD Stelescu, G. Craciun, E. Manaila, D. Ighigeanu, Proceedings of the 5th International Conference on Advanced Materials and Systems, ICAMS 2014, 23-25 october **2014**, Bucharest, Romania. ISSN: 2068-0783; 379-384;
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