

List of publications

I. Publications in scientific journals

1. M. R. Nemțanu, **M. Brasoveanu*** Radio-sensitivity of some starches treated with accelerated electron beam, *Starch/Stärke*, Vol. 64, Issue 6, 435–440, 2012
2. I. Sandu, **M. Brasoveanu**, I. Morjan, I. Voicu, F. Dumitrache, C. Fleaca Teodor, L. Gavrilă-Florescu, Synthesis of optical transparent and electrical conductive polymer/nanocarbon composite films by infiltration method, *Thin Solids Film*, Vol. 519, Issue 12, 4128–4131, 2011
3. M. Nemțanu, G. Craciun, E. Manaila, M. Oane, **M. Brasoveanu**, C. Oproiu, D. Martin and D. Ighigeanu, One and Two-Temperature Models in Solids Under Laser Pulse Irradiation Which Effectively Present as Two-Photon Absorption Coefficient Anisotropy, *Lasers in Engineering*, Vol. 22, Nos. 1-2, 13-23, 2011
4. M.R. Nemțanu, **M. Brașoveanu**, H. Iovu, Degradation Rate of Some Electron Beam Irradiated Starches, *U.P.B. Sci. Bull., Series B*, Vol. 72, Iss. 2, 69-74, 2010
5. M.R. Nemțanu, **M. Brasoveanu**, Aspects regarding the Rheological Behavior of Wheat Starch Treated with Accelerated Electron Beam, *Romanian Journal of Physics*, Vol. 55, Nos. 1-2, 111-117, 2010
6. M.R. Nemțanu, **M. Brașoveanu**, D. Martin, E. Mănăilă, H. Iovu, A. Dinescu, Physicochemical and structural characterization of corn starch modified by combined electron beam with microwave treatment, *Materiale plastice* 46, Nr. 4, 413-418, 2009
7. M.R. Nemțanu, **M. Brașoveanu**, Effects of Electron Beam Irradiation on Aqueous Solution of Corn Starch, *Buletinul Institutului Politehnic din Iasi*, Tomul LV (LIX), Fasc. 1, sectia Matematica. Mecanica teoretica. Fizica, 129-136, 2009
8. M.R. Nemțanu, C. Oproiu, **M. Brasoveanu**, M. Oane, Characterization of the Electron Beam Radiation Field by Chemical Dosimetry, *Romanian Journal of Physics*, Vol. 54, Nos. 7-8, 613-617, 2009
9. M.R. Nemțanu, **M. Brasoveanu**, V. Meltzer, E. Pincu, C. Oproiu, Thermal Analysis of Some Phytotherapeutic Products Irradiated with Electron Beam, *Journal of Thermal Analysis and Calorimetry* 97, Issue 1, 309-313, 2009
10. M.R. Nemțanu, **M. Brașoveanu**, E. Mazilu, N. Rădulescu, Effect of Ionising Radiations on the Antioxidant Activity of *Spirulina Platensis*, *Buletinul Institutului Politehnic din Iasi*, Tomul LIII (LVII), Fasc. 2, sectia Matematica. Mecanica teoretica. Fizica, 137-142, 2008
11. M.R. Nemțanu, **M. Brașoveanu**, E. Mazilu, N. Rădulescu, Effect of Ionising Radiations on the Antioxidant Activity of *Spirulina Platensis*, *Buletinul Institutului Politehnic din Iasi*, Tomul LIII (LVII), Fasc. 2, sectia Matematica. Mecanica teoretica. Fizica, 137-142, 2008
12. S. Manea, E. Mazilu, S. Setnic, F.L. Botez, C. Ristea, **M. Brasoveanu**, M. Nemțanu, The effects of ionising radiation on the biological active compounds in *Hippophae Rhamnoides* fruits, and on their antioxidant activity, *Revista de Chimie* 58, Nr. 8, 844-847, 2007
13. M.R. Nemțanu, **M. Brasoveanu**, E. Mazilu, N. Radulescu, Influence of the Ionizing Radiation on the Antioxidant Characteristics of the Sea Buckthorn, *Analele Universitatii de Vest din Timisoara*, seria Fizica, vol. 49, 119-122, 2006
14. M.R. Nemțanu, **M. Brașoveanu**, R. Minea, M.N. Grecu, M. Albușescu, E. Mitru, Microbiological Decontamination of *Spirulina Platensis* and Green Coffee Using Accelerated Electron Beams, *Romanian Journal of Biophysics*, Vol. 16, No. 2, 141-148, 2006
15. **M. Brasoveanu**, M.N. Grecu, M.R. Nemțanu, Electron Paramagnetic Resonance Study on Irradiated Green Coffee, *Romanian Journal of Physics*, Vol. 51, Nos. 1-2, 135-137, 2006
16. R. Minea, **M. Brasoveanu**, M.N. Grecu, M.R. Nemțanu, Preliminary Studies on Irradiated *Spirulina*, *Romanian Journal of Physics*, Vol. 51, Nos. 1-2, 131-134, 2006
17. M.R. Nemțanu, **M. Brasoveanu**, M.N. Grecu, R. Minea, Green Coffee Decontamination by Electron Beam Irradiation, *Nuclear Instruments and Methods in Physics Research B* 240, Issues 1-2, 87-90, 2005

18. **M. Brasoveanu**, M. Nemtanu, R. Minea, M.N. Grecu, E. Mazilu, N. Radulescu, Electron beam irradiation for biological decontamination of *Spirulina Platensis*, *Nuclear Instruments and Methods in Physics Research B* 240, Issues 1-2, 83-86, 2005
19. M.R. Nemtanu, **M. Brasoveanu**, R. Minea, M.N. Grecu, M. Albulescu, Modification of the Biological and Physicochemical Properties of Irradiated *Spirulina Platensis*, *Revista Medico-Chirurgicala a Societatii de Medici si Naturalisti din Iasi*, Vol. 109, supliment nr. 1, 141-142, 2005
20. **M. Brasoveanu**, M.R. Nemtanu, M.N. Grecu, E. Mitru, Microbial Decontamination of Coffee Using Accelerated Electron Beams, *Revista Medico-Chirurgicala a Societatii de Medici si Naturalisti din Iasi*, Vol. 109, supliment nr. 1, 140-141, 2005
21. M.R. Nemtanu, A. Tirlea, **M. Brasoveanu**, Physical Methods for Irradiated Food Identification, *Journal of Environmental Protection and Ecology*, Vol. 5, No. 4, 922-925, 2004
22. **M.M. Brasoveanu**, M.N. Grecu, M.R. Nemtanu, A. Tirlea, R. Minea, Irradiated Dried Fruits Identification, *Journal of Environmental Protection and Ecology*, Vol. 5, No. 4, 917-921, 2004
23. A. Tirlea, M.R. Nemtanu, **M.M. Brasoveanu**, Rheological Method for the Detection of Irradiated Spices, *Journal of Environmental Protection and Ecology*, Vol. 5, No. 3, 534-539, 2004
24. S. Manea, V. Tamas, E. Mazilu, C. Tanase, S. Setnic, D. Enulescu, N. Rădulescu, **M.M. Braşoveanu**, M.R. Nemţanu, R. Minea, The Effects of Ionising Radiation on the Main Free Radical Scavengers in *Spirulina Plantensis*, *Revista de Chimie* 55, Nr. 11, 914-915, 2004
25. R. Minea, S. Manea, E. Mazilu, **M. Brasoveanu**, M. Nemtanu, V. Tamas, N. Radulescu, Preliminary Studies on the Microbial Decontamination of Some Medicinal Herbs by Irradiation, *Analele Universitatii de Vest din Timisoara*, seria Stiinte Fizice, vol. 44, 168-170, 2003
26. **M. Brasoveanu**, M.R. Nemtanu, V.V. Grecu, R. Minea, Studies on Irradiated Coffee Identification by Electron Paramagnetic Resonance, *Analele Universitatii de Vest din Timisoara*, seria Stiinte Fizice, vol. 44, 164-167, 2003
27. **M.M. Brasoveanu**, V.V. Grecu, M.R. Nemtanu, R. Minea, Limits in EPR Dosimetry for Irradiated Dried Fruits Discrimination, *Romanian Journal of Physics*, Vol. 48, Nos. 1-4, 289-293, 2003
28. D.M. Timus, B.D. Timus, **M.M. Brasoveanu**, D.A. Bradley, On the energy behaviour of fast d-T neutrons generated by hollow-cylindrical deuteron beams accelerated onto plane tritium targets, *Applied Radiation and Isotopes*, Vol. 48, Issues 10-12, 1677-1686, 1997
29. D.M. Timus, A.M. Popov, **M.M. Brasoveanu**, A. Babes, D.A. Bradley, Some preliminary studies of the thermal behaviour of electron beam grafted polyamides, *Applied Radiation and Isotopes*, Vol. 48, Issues 10-12, 1657-1662, 1997
30. D.M. Timus, **M.M. Popescu (Brasoveanu)**, The energy spread of some radiation fields used in activation analysis, *Journal of Radioanalytical and Nuclear Chemistry*, Vol. 220, Issue 2, 135-143, 1997

II. Chapters in scientific books

1. C. Oproiu, M.R. Nemţanu, **M. Braşoveanu**, M. Oane, Chapter 2: Determination of Absorbed Dose Distribution in Technological Accelerated Electron Beam Treatments, pp 17-41 in "Practical Aspects and Applications of Electron Beam Irradiation" (eds. M.R. Nemţanu, M. Braşoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India (in press)
2. M.R. Nemţanu and **M. Braşoveanu**, Chapter 14: Irradiation as a Method to Assure Food Quality and Safety in "Food Quality: Control, Analysis and Consumer Concerns" (eds. D.A. Medina, A.M. Laine), ISBN 978-1-61122-917-2, Nova Science Publishers, Inc., New York, 2011 (in press)
3. M.R. Nemţanu, **M. Braşoveanu**, Chapter 17: *Functional Properties of Some Non-conventional Treated Starches*, pp 319-344 in "Biopolymers" (ed. M. Eknashar), ISBN 978-953-307-109-1, Scyio, Rijeka, Croatia, 2010
4. M.R. Nemţanu, **M. Braşoveanu**, Chapter 5: *Electron Beam Treatment as a Non-conventional Preservation Method of Nutritional Supplements based on Vegetal Materials*, pp 169-192 in "Food Science Research and Technology" (eds. I. Hulsen, E. Ohnesorge), ISBN 978-1-60741-848-1, Nova Science Publishers, Inc., New York, 2009

III. Scientific books (as co-editor)

1. M.R. Nemțanu and **M. Brașoveanu** (eds.), "Practical Aspects and Applications of Electron Beam Irradiation", ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India (in press)

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

1. G. Craciun, D. Martin, E. Manaila, **M. Nemtanu**, **M. Brașoveanu**, D. Ighigeanu, *Biodegradable Polyelectrolytes Obtained by Radiation Polymerization*, Proceedings of the 7th Conference on Nuclear and Particle Physics (NUPPAC'09), 615-626, 11-15 November 2009, Sharm El-Sheikh, Egypt
2. M.R. Nemtanu, **M. Brașoveanu**, R. Minea, *Studies on the Rheological and Functional Properties of Corn Starch Treated with Accelerated Electron Beams and Electrical Discharges*, Proceedings of the 4th International Symposium on Food Rheology and Structure (ISFRS 2006), Zurich, Switzerland, ISBN 3-905609-25-8, 637-638, February 19-23, 2006
3. **M. Brașoveanu**, M.R. Nemtanu and R. Minea, *Investigation of Biological and Physicochemical Properties of Irradiated Spirulina Platensis*, Proceedings of Euro Food Chem XIII, Hamburg, Germany, vol. 2, 623-625, September 21-23, 2005
4. M.R. Nemtanu, **M. Brașoveanu**, and R. Minea, *Studies on Modified Starches by Irradiation*, Proceedings of Euro Food Chem XIII, Hamburg, Germany, vol. 1, 97-101, September 21-23, 2005
5. N. Georgescu, R. Minea, **M. Brașoveanu**, M. Nemtanu, *Experiments with repetitive pulsed atmospheric pressure plasmas, for air/water pollution control*, XXVII International Conference on Phenomena in Ionized Gases (ICPIG 2005) – Proceedings, Eindhoven, The Netherlands, July 18-22, 2005
6. R. Minea, M.R. Nemtanu, **M. Brașoveanu**, C. Oproiu, E. Mazilu, N. Radulescu, *Accelerators Use for Irradiation of Fresh Medicinal Herbs*, Proceedings of 9th European Particle Accelerator Conference (EPAC'04) – CD-ROM, Lucerne, Switzerland, 2368-2370, 5-9 July, 2004
7. M.R. Nemtanu, A. Tirlea, **M. Brașoveanu**, D. I. Martin, C. Oproiu, R. Minea, *Applications of the Electron Beams for Industry*, Proceedings of the 7th International Conference on Electron Beam Technologies (EBT'2003), Varna, Bulgaria, 366-370, 1-6 June 2003
8. B. Constantinescu, C. Nicolescu, C. Teodorescu, F. Constantin, R. Bugoi, P. Ioan, L. Radulescu, **M. Brașoveanu**, M. Dragusin, *Gamma and proton irradiation effects on optical transmission materials for plasma diagnostics in nuclear fusion reactor*, 29th EPS Conference on Plasma Phys. and Contr. Fusion ECA Vol. 26B, P-1.128, Montreux, 17-21 June 2002
9. **Brașoveanu M.M.**, M.R. Nemtanu, N.M. Grecu, V.V. Grecu, R. Minea, *Limits in Irradiated Dried Fruits Discrimination by EPR Method*, The 5th International Conference on Food Physics – Proceedings, ISBN 80-7157-626-3, Brno, Czech Republic, 15-18, May 30-June 1, 2002

V. Other papers presented at scientific meetings, symposia, workshops or conferences and published as abstract

1. **M. Brașoveanu**, M.R. Nemțanu, *Study of Electron Beam Irradiated Starches Using Factor Analysis*, 10th International Balkan Workshop on Applied Physics (IBWAP 2009), ISBN 978-973-614-507-0, p 145, July 6-8, 2009, Constanța, Romania
2. M. Oane, A. Popescu, C. Oproiu, I.N. Mihailescu, R.V. Medianu, M. Nemtanu, **M. Brașoveanu**, O. Pacala, M. Pacala, A. Predoiu, *The general model of the thermal field distributions in solids under multiple laser irradiation*, 2009 Annual Scientific Conference – Program and Abstracts, ISSN 1843-6838, pp 140-141, Bucharest-Magurele, June 5, 2009
3. R. Minea, M.R. Nemtanu, **M. Brașoveanu** and E. Mitru, *Rheological Behavior of Electron Beam Irradiated Maize Starch*, Abstracts – 6th International Balkan Workshop on Applied Physics (IBWAP 2005), p 138, July 5-7th, 2005, Constanța, Romania
4. R. Minea, **M. Brașoveanu**, M.R. Nemtanu and E. Mitru, *Evaluation of Irradiated Fresh Herbs*, Abstracts – 6th International Balkan Workshop on Applied Physics (IBWAP 2005), p 138, July 5-7th, 2005, Constanța, Romania

5. **M.M. Brasoveanu**, N.M. Grecu, M.R. Nemtanu, R. Minea, V.V. Grecu, *Free Radicals in Electron Beam Irradiated Green Coffee Beans Studied by Electron Paramagnetic Resonance Spectroscopy*, 9th International Workshop Electron Magnetic Resonance of Disordered Systems (EMARDIS-05) – Abstracts, June 8-15, 2005, Sofia-Boyana, Bulgaria
6. R. Minea, **M. Brasoveanu**, M. Nemtanu, S. Manea, V. Tamas, E. Mazilu, S. Setnic, N. Radulescu, C. Tanase, *The Effect of Ionising Radiation on Certain Biologically Active Compounds and Enzymatic Activity of Spirulina platensis*, Physics Conference (TIM-04) – Abstract Book, Addendum, November 26th-27th, 2004, Timișoara, Romania
7. N. Georgescu, R. Minea, M. Nemtanu, **M. Brasoveanu**, *Production of oxidant agents in water, by using e-beam, combined with electrical discharges*, 8th European Conference on Accelerators in Applied Research and Technology (ECAART-8), p 90, September 20-24, 2004, Paris, France
8. B. Constantinescu, M. Nemtanu, **M. Brasoveanu**, R. Bugoi, P. Ioan, M. Dragusin, D. Stan, *Studies on Proton Irradiation-Induced Modifications in Ultraviolet Transmission Properties on KU1 Quartz Glass Samples*, Abstracts – 5th International Balkan Workshop on Applied Physics (IBWAP 2004), p 106, July 5-7th, 2004, Constanța, Romania
9. **M. Brasoveanu**, M. Nemtanu, A. Tirlea, *Identification Possibilities of Irradiated Coffee Beans by Rheology and Paramagnetic Resonance Methods*, Simpozion “Mediul si Industria” – Rezumate, ISBN 973-85841-9-1, p 138, 29-31 octombrie 2003, București, Romania
10. **M.M. Brasoveanu**, M.R. Nemtanu, A. Tirlea, R. Minea, V.V. Grecu, *Studies Regarding the Possibility to Use Electron Paramagnetic Resonance on Irradiated Coffee Identification*, Book of Abstracts – First International Meeting on Applied Physics (APHYS – 2003), p 85, October 13-18th 2003, Badajoz, Spain
11. M.R. Nemtanu, **M.M. Brasoveanu**, A. Tirlea, R. Minea, *Physical Methods for Irradiated Food Discrimination*, 4th International Balkan Workshop on Applied Physics (IBWAP 2003) – Abstracts, p 108, September 25-27th, 2003, Constanța, Romania
12. **M.M. Brasoveanu**, A. Tirlea, M.R. Nemtanu, R. Minea, *Rheological Method for Irradiated Coffee*, 4th International Balkan Workshop on Applied Physics (IBWAP 2003) – Abstracts, p 108, September 25-27th, 2003, Constanța, Romania
13. A. Tirlea, M.R. Nemtanu, **M.M. Brasoveanu**, R. Minea, *Irradiated Starch Detection by Rheological Method*, 4th International Balkan Workshop on Applied Physics (IBWAP 2003) – Abstracts, p 107, September 25-27th, 2003, Constanța, Romania
14. B. Constantinescu, M. Nemtanu, **M. Brasoveanu**, D. Stan, P. Ioan, R. Bugoi, *Gamma and Proton Degradation in Optical Transmission Materials*, 4th International Balkan Workshop on Applied Physics (IBWAP 2003) – Abstracts, p 73, September 25-27th, 2003, Constanța, Romania
15. R. Minea, N. Georgescu, Al. Vulpe, G. Bajeu, **M. Brasoveanu**, M. Nemtanu, *A System for Pulsed Corona Plasmas, with Ecological Applications*, Ceres Programme – Annual Scientific Session, ISBN 973-8488-09-5, pp II.89-II.90, 2-3 December 2002, Bucharest, Romania
16. M.R. Nemtanu, **M. Brasoveanu**, *Preliminary Researches Regarding Edible Jet Printing Inks*, 12th National Conference of the Romanian Physical Society “Trends in Physics” – Abstracts, p 89, 26-28 September 2002, Târgu Mureș, Romania
17. **M.M. Brasoveanu**, D. Timus, M.R. Nemtanu, *Elaboration of a Method for Surface Electrical Resistivity Modification of Polyamide by Electron Beam Irradiation*, 12th National Conference of the Romanian Physical Society “Trends in Physics” – Abstracts, p 35, 26-28 September 2002, Târgu Mureș, Romania
18. C. Oproiu, D. Martin, F. Scarlat, D. Timus, **M. Brasoveanu**, M. Nemtanu, *Insulating Materials Resistance in Intense Radiation Beams*, 12th National Conference of the Romanian Physical Society “Trends in Physics” – Abstracts, p 32, 26-28 September 2002, Târgu Mureș, Romania