

LIST OF PUBLICATIONS

(in the last 10 years)

I. Articles/studies

1. **M.R. Nemțanu**, M. Brașoveanu, Degradation of Amylose by Ionizing Radiation Processing, *Starch/Starke*, Vol. 69, Issue 3-4, Article Number 1600027, 2017
2. M. Brașoveanu, E. Koleva, K. Vutova, L. Koleva, **M.R. Nemțanu**, Optimization Aspects on Modification of Starch Using Electron Beam Irradiation for the Synthesis of Water-Soluble Copolymers, *Romanian Journal of Physics*, Vol. 61, Nos. 9-10, 1519-1529, 2016
3. D.D.M. Ghisleni, M.S. Braga, I.S. Kikuchi, M. Brașoveanu, **M.R. Nemțanu**, K. Dua, T.J.A. Pinto, The Microbial Quality and Decontamination Approaches for the Herbal Medicinal Plants and Products: An in-Depth Review, *Current Pharmaceutical Design*, Vol. 22, No. 27, 4264-4287, 2016
4. **M.R. Nemțanu**, M. Brașoveanu, Impact of Electron Beam Irradiation on Quality of Sea Buckthorn (*Hippophae rhamnoides* L.) Oil, *Journal of the Science of Food and Agriculture*, Vol. 96, Iss. 5, 1736-1744, 2016
5. E. Koleva, L. Koleva, V. Tzotchev, **M. Nemtanu**, M. Brashoveanu, K. Vutova, Robust engineering approach for optimization of electron beam grafting of corn starch, *Science, Engineering & Education* 1, (1), 89-96, 2016
6. E. Koleva, L. Koleva, M. Brașoveanu, **M.R. Nemțanu**, T. Paneva, V. Tzotchev, Graphical user interface for optimization of starch modified by electron beam irradiation, *Elektrotechnica & Elektronika* 5-6, 281-287, 2016
7. M. Brașoveanu, **M.R. Nemțanu**, L. Flore, V. Anca, Electron-beam graft modification of biopolymers for use in the surface water treatment, *Elektrotechnica & Elektronika* 5-6, 262-266, 2016
8. **M.R. Nemtanu**, M. Brasoveanu, Application of electron beam irradiation to modify the rheological behavior of pectins, *Elektrotechnica & Elektronika* 5-6, 257-261, 2016
9. Koleva E., Koleva L., **Nemțanu M.R.**, Brașoveanu M., Vutova K., Tzotchev V., Investigation and Optimization of Electron Beam Grafting of Corn Starch, *Machines. Technologies. Materials. International Scientific Journal* Year X, Issue 3, 52-55, 2016
10. M. Brașoveanu, **M.R. Nemțanu**, C. Surdu-Bob, G. Karaca, I. Erper, Effect of Glow Discharge Plasma on Germination and Fungal Load of Some Cereal Seeds, *Romanian Reports in Physics*, Vol. 67, No. 2, 2015
11. **M.R. Nemțanu**, M. Brașoveanu, N. Iacob, *Preparation of Metallic Nanoparticles by Irradiation in Starch Aqueous Solution*, AIP Conference Proceedings 1634, 180-185, 2014
12. **M.R. Nemțanu**, M. Brașoveanu, G. Karaca, I. Erper, Inactivation effect of electron beam irradiation on fungal load of naturally contaminated maize seeds, *Journal of the Science of Food and Agriculture*, Vol. 94, Iss. 13, 2668-2673, 2014
13. M. Brașoveanu, **M.R. Nemțanu**, Behaviour of starch exposed to microwave radiation treatment, *Starch/Starke*, Vol. 66, Nos. 1-2, 3-14, 2014
14. M. Brașoveanu, **M.R. Nemțanu**, D. Duță, Electron-Beam Processed Corn Starch: Evaluation of Physicochemical and Structural Properties and Technical-Economic Aspects of The Processing, *Brazilian Journal of Chemical Engineering*, Vol. 30, No. 4, 847-856, 2013
15. M. Brașoveanu, G. Crăciun, E. Mănăilă, D. Ighigeanu, **M.R. Nemțanu**, M.N. Grecu, Evolution of the Levels of Free Radicals Generated on Wheat Flour and Wheat Bran by Electron Beam, *Cereal Chemistry*, Vol. 90, Iss. 5, 469-473, 2013
16. M. Brașoveanu, **M.R. Nemțanu**, Influence of Accelerated Electron Beam and Storage Time on the Antioxidant Activity of *Hippophae Rhamnoides*, *Journal of Medicine Research and Development (JMRD)*, Vol. 2, Iss. 2, 28-34, 2013
17. **Monica R. Nemtanu**, Mirela Brasoveanu, Radio-sensitivity of some Starches Treated with Accelerated Electron Beam, *Starch/Starke*, Vol. 64, 435-440, 2012

18. M. Oane, **M. Nemțanu**, C. Oproiu, The General Model of the Thermal Field Distributions in Solids under Multiple Laser Beam Irradiation, *Lasers in Engineering*, Vol. 21, Nos. 3-4, 129-134, 2011
19. **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
20. Siliane B. Kalkasliel-Souza, Irene S. Kikuchi, Ronaldo D. Mansano, Adir J. Moreira, **Monica R. Nemțanu**, Terezinha J.A. Pinto, Microbial Decontamination Study of Some Medicinal Plants by Plasma Treatment, *Latin American Journal of Pharmacy* 29 (2), 293-297, 2010
21. **Monica R. Nemțanu**, Mirela Brașoveanu, Horia Iovu, Degradation Rate of Some Electron Beam Irradiated Starches, *U.P.B. Sci. Bull., Series B*, Vol. 72, Iss. 2, 69-74, 2010
22. M. Oane, C. Oproiu and **M. Nemțanu**, The Fourier Heat Equation Applied to Beam-Water Phantom Interaction, *Lasers in Engineering*, Vol. 20, Nos. 5-6, 311-317, 2010
23. **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
24. **M.R. Nemțanu**, R. Minea, E. Mazilu, S. Setnic, E. Mitru, C. Balotescu, M. Bucur, C. Oproiu, G. Mihăescu, L.M. Dițu, Effects of Ionizing Radiation on the Antioxidant and Antimicrobial Activities of Sea Buckthorn Oil, *Acta Horticulturae* (ISHS) 826, 255-260, 2009
25. S.B. Kalkasliel-Souza, I.S. Kikuchi, R.D. Mansano, A.J. Moreira, **M.R. Nemțanu**, T.J.A. Pinto, Microbial Decontamination Study of Some Medicinal Plants by Plasma Treatment, *Acta Horticulturae* (ISHS) 826, 205-212, 2009
26. **Monica R. Nemțanu**, Mirela Brașoveanu, Diana Martin, Elena Mănăilă, Horia Iovu, Adrian Dinescu, Physicochemical and structural characterization of corn starch modified by combined electron beam with microwave treatment, *Materiale plastice* 46, Nr. 4, 413-418, 2009
27. F. Mihai, V. Tripadus, **M.R. Nemțanu** and D.C. Negut, Modifications of Viscoelastic Properties of Polysaccharides by Gamma Irradiation, *Arab Journal of Nuclear Sciences and Applications* 42, 261-266, 2009
28. C. Oproiu, D. Toader, **M. R. Nemțanu**, R. Popa, The use of cellulose acetate for determining the dose distribution in electron beam, *Romanian Journal of Physics*, Vol. 54, Nos. 9-10, 861-867, 2009
29. **Monica R. Nemțanu**, C. Oproiu, Mirela 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
30. **Monica R. Nemțanu**, Mirela Brasoveanu, Viorica Meltzer, Elena Pincu, Constantin Oproiu, Thermal Analysis of Some Phytotherapeutic Products Irradiated with Electron Beam, *Journal of Thermal Analysis and Calorimetry* 97, Issue 1 (July 2009), 309-313, 2009
31. **Monica R. Nemțanu**, Mirela 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

II. Books, monographs, book chapters

1. M. Brașoveanu, **M.R. Nemțanu**, *Aspects on Starches Modified by Ionizing Radiation Processing*, în "Applications of Modified Starches" (eds. E. F. Huicochea, J. R. R. Villalobos), ISBN 978-953-51-5691-8, InTechOpen, Croatia, 2018 (în curs de tipărire)
2. M. Brașoveanu, **M.R. Nemțanu**, *Natural polymers used as matrices for metallic nanoparticle synthesis by ionizing irradiation*, pp 348-353, în "Polymer science: research advances, practical applications and educational aspects" (eds. A. Méndez-Vilas, A. Solano-Martín), ISBN 978-81-7895-541-4, Formatex Research Center, Spain, 2016
3. **M.R. Nemțanu**, M. Brașoveanu, *Ionizing irradiation grafting of natural polymers having applications in wastewater treatment*, pp 270-277, în "Polymer science: research advances, practical applications and educational aspects" (eds. A. Méndez-Vilas, A. Solano-Martín), ISBN 978-81-7895-541-4, Formatex Research Center, Spain, 2016

4. **Monica R. Nemțanu** and Mirela Brașoveanu (eds.), *“Practical Aspects and Applications of Electron Beam Irradiation”*, 254 pagini, ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India, 2011
5. C. Oproiu, **M.R. Nemțanu**, M. Brașoveanu, 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. Nemțanu, M. Brașoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India, 2011
6. **Monica R. Nemțanu** and Mirela Brașoveanu, Chapter 14: *Irradiation as a Method to Assure Food Quality and Safety*, pp 459-467 în *“Food Quality: Control, Analysis and Consumer Concerns”* (eds. Daniel A. Medina, Amanda M. Laine), ISBN 978-1-61122-917-2, Nova Science Publishers, Inc., New York, 2011
7. **Monica R. Nemțanu**, Mirela Brașoveanu, Chapter 17: *Functional Properties of Some Non-conventional Treated Starches*, pp 319-344 în *“Biopolymers”* (ed. Magdy Eknashar), ISBN 978-953-307-109-1, Scyio, Rijeka, Croatia, 2010
8. **Monica R. Nemțanu**, Mirela Brașoveanu, Chapter 5: *Electron Beam Treatment as a Non-conventional Preservation Method of Nutritional Supplements based on Vegetal Materials*, pp 169-192 în *“Food Science Research and Technology”* (eds. Isaak Hulsen, Egon Ohnesorge), ISBN 978-1-60741-848-1, Nova Science Publishers, Inc., New York, 2009
9. T.J.A. Pinto, J.M.F. Silva, I.S. Kikuchi and **M.R. Nemțanu**, Expert Commentary A: *Alterations in Herbs Submitted to Radiation Decontamination*, pp 1-9 în *“Radiation Physics Research Progress”* (ed. Aidan N. Camilleri), ISBN 978-1-60021-988-7, Nova Science Publishers, Inc., New York, 2008

III. Studies published in Proceedings of national and international meetings

1. M. Brașoveanu, L.St. Koleva, **M.R. Nemțanu**, E.G. Koleva, T.P. Paneva, *Graphical user interface for investigation and optimization of electron beam induced grafting of starch*, Program, Abstracts, Manuscripts of the Thirteenth International Conference on Electron Beam Technologies (EBT 2018), 147-152, Varna, Bulgaria, 18-22 June 2018
2. Koleva E., Koleva L., **Nemțanu M.R.**, Brașoveanu M., Vutova K., Tzotchev V., *Investigation and Optimization of Electron Beam Grafting of Corn Starch*, International Scientific Conference “High Technologies. Business. Society 2016”, 14 – 17 March 2016, Borovets, Bulgaria – *Scientific Proceedings of the Scientific Technical Union of Mechanical Engineering Year XXIV*, Volume 5/191 (volume I, section “High Technologies”), 51-54, ISSN: 1310-3946, 2016
3. G. Craciun, D. Martin, E. Manaila, **M. Nemțanu**, M. Brasoveanu, D. Ighigeanu, *Biodegradable Polyelectrolytes Obtained by Radiation Polymerization*, Proceedings of the 7th Conference on Nuclear and Particle Physics (NUPPAC’09), Sharm El-Sheikh, Egypt, 615-626, 11-15 November 2009

IV. Patents

1. **Monica R. Nemțanu**, Mirela Brașoveanu, Denisa Eglantina Duță, Viorica Meltzer, *Starch modified by radio-degradation with accelerated electron beam*, RO-127402, RO-BOPI no. 12/2013