A.C. Dr. Raluca NICU

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The research interest cover the areas of: (i) hydrogels based on natural polymers (cellulose, dextran, carrageenan, alginate) for medical/pharmaceutical applications; (ii) biomaterials based on nanocellulose for drug delivery and tissue engineering applications; (iii) chemical modification of polysaccharides (chitosan, dextran, etc.) in order to obtain new compounds with specific properties for biomedical applications; (iv) films based on bioadditives with applications in smart packaging.

Scientific record: Articles published in international peer-reviewed journals (ISI ranked and included in international data bases): **17**; Articles published full-text in international conference volumes: **25**; Book chapters: **2**; Patents (national): **2 patent**; Research and development projects based on **2 international projects** and **4 national research projects**, of which: **6 as member** of the project; **Research stages**: "Complutense" University of Madrid, Faculty of Chemical Engineering (2011). **335 citations** (without self-citation) in international ISI ranked journals, Hirsch index**, H= 9** in Web of Science databases.

SELECTED SCIENTIFIC ARTICLES

1. Ciolacu, D.E., Nicu, R., Ciolacu, F., Cellulose-based hydrogels as sustained drug delivery systems. *Materials*, 13(22), 5270, 2020, *F.I. = 3.623.*
2. Chește, A.M., Tofănică, B.M., Puițel, A.C., Nicu, R., Gavrilescu, D., Environmentally friendly cellulosic fibers from corn stalks, *Environmental Engineering and Management Journal*, 17(7), 1765-1771, 2018, *F.I. = 1.306.*
3. Ciolacu, F., Nicu, R., Balan, T., Bobu, E., Chitosan derivatives as bio-based materials for paper heritage conservation, *BioResources* 12(1), 735-747, 2017, *F.I. = 1.614.*
4. Bobu, E., Nicu, R., Obrocea, P., Ardelean, E., Dunca, S., Balaes, T., Antimicrobial properties of coatings based on chitosan derivatives for applications in sustainable paper conservation, *Cellulose Chemistry and Technology*, 50(5-6), 689-699, 2016, *F.I. = 1.43.*
5. Miranda, R., Nicu, R., Latour, I., Lupei, M., Bobu, E., Blanco, A. (2013). Efficiency of chitosan for the treatment of papermaking process water by dissolved air flotation, *Chemical Engineering Journal* 231, 304-313, 2013, *F.I. = 10.652.*