



COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Anet Režek Jambrak

Type (Academic or Industrial): Academic

Country: Croatia

Leadership position in the COST: Management committee member

Working Group in which you are involved: WG 1-5

e-mail: anet.rezek.jambrak@pbf.hr

Laboratory/Company:

Laboratory for Sustainable Development, Faculty of Food Technology and Biotechnology, University of Zagreb

https://www.researchgate.net/profile/Anet_Reek_Jambrak

Laboratory/Company info (limited to 400 characters):

The Faculty of Food Technology and Biotechnology at the University of Zagreb is the leading institution in the Republic of Croatia in terms of science, research and education in the fields of biotechnology, food technology and nutrition science. For many years, this Faculty has been educating highly qualified experts, conducting scientific research and professional projects in cooperation with industry and has been a major driving force of Croatian economic development in the above-mentioned fields. In the past years many generations of food technologists, biotechnologists and nutritionists working in food, fermentation and pharmaceutical industries and various jobs in the public sector were educated at the Faculty. Many of our alumni have continued their academic and scientific careers both in Croatia and abroad and have made our study programmes and our Faculty internationally recognised.

The Faculty of Food Technology and Biotechnology is equipped with modern lecture halls and laboratories where students acquire their practical knowledge and skills.

The Faculty comprises of 6 departments that have 27 laboratories and 7 sections responsible for the education at undergraduate, graduate and postgraduate level.

The Faculty's mission in science and research is to conduct basic, applied and experimental research in interdisciplinary science fields of food technology, biotechnology and nutrition along with related scientific disciplines. Our goal is to encourage critical thinking and creativity to bring about novel scientific findings, ideas and innovations which are necessary for knowledge and technology transfer into industry.

Through research-based learning, we are educating future bearers of science and society development. Through new ideas and technological solutions, critical thinking and creativity, the Faculty of Food Technology and Biotechnology has become the key initiator of economy and sustainable development in the fields of biotechnical sciences in the Republic of Croatia.

Link to the home page of the Laboratory/Company:

www.pbf.unizg.hr/en/departments/department_for_general_programmes/laboratory_for_sustainable_development

http://www.pbf.unizg.hr/en/departments/department_for_general_programmes/laboratory_for_sustainable_development/anet_rezek_jambrak



Fields of expertise (limited to 400 characters):

I am food technologists in biotechnical sciences, with expertise nonthermal and advanced thermal processing techniques. I am at position of Scientific Advisor (permanent title) from 24.11.2017, and Professor from 10.07.2018. I was trained abroad at Coventry University, UK and in 2009. at the University of Avignon, France. My field of research is food chemistry, food physics, nonthermal processing, advanced thermal processing, sustainability, food processing and Industry 4.0. In the period from 2007., there were published, as author and co-author, over 100 significant scientific papers with citation more than 2250, (h-index 26) and author of book chapters in scientific books. In 2019. I was awarded the certificate and acknowledgment from Web of Science and Clarivate Analytics for the most cited and influenced author (in the 1% of world sciences).

5 Main publications or patents:

1. Jambrak, A.R., Mason, T.J., Lelas, V., Herceg, Z., Herceg, I.L. (2008) Effect of ultrasound treatment on solubility and foaming properties of whey protein suspensions *Journal of Food Engineering*, 86 (2), pp. 281-287. Cited 246 times.
DOI: 10.1016/j.jfoodeng.2007.10.004
2. Koubaa, M., Roselló-Soto, E., Šić Žlabur, J., Režek Jambrak, A., Brnčić, M., Grimi, N., Boussetta, N., Barba, F.J. (2015) Current and New Insights in the Sustainable and Green Recovery of Nutritionally Valuable Compounds from *Stevia rebaudiana* Bertoni *Journal of Agricultural and Food Chemistry*, 63 (31), pp. 6835-6846. Cited 88 times.
DOI: 10.1021/acs.jafc.5b01994
3. Giacometti, J., Bursać Kovačević, D., Putnik, P., Gabrić, D., Bilušić, T., Krešić, G., Stulić, V., Barba, F.J., Chemat, F., Barbosa-Cánovas, G., Režek Jambrak, A. (2018) Extraction of bioactive compounds and essential oils from mediterranean herbs by conventional and green innovative techniques: A review. *Food Research International*, 113, pp. 245-262. Cited 31 times.
DOI: 10.1016/j.foodres.2018.06.036
4. Misra, N.N., Martynenko, A., Chemat, F., Paniwnyk, L., Barba, F.J., Jambrak, A.R. (2018) Thermodynamics, transport phenomena, and electrochemistry of external field-assisted nonthermal food technologies (2018) *Critical Reviews in Food Science and Nutrition*, 58 (11), pp. 1832-1863. Cited 24 times.
DOI: 10.1080/10408398.2017.1287660
5. Van Impe, J., Smet, C., Tiwari, B., Greiner, R., Ojha, S., Stulić, V., Vukušić, T., Režek Jambrak, A. (2018) State of the art of nonthermal and thermal processing for inactivation of micro-organisms. DOI: 10.1111/jam.13751

Collaborations:

Prof. Timothy Mason, prof.Farid Chemat, prof. Dietrich Knorr, prof.Giancarlo Cravotto, prof.Brijesh Tiwari, prof.Francisco Barba, prof.Henry Jager, prof. Jan van Impe, prof. Giovanna Ferrari, prof. Francesco Donsi, prof.N.N.Misra, prof.Anubhav Pratap Singh, prof.Ilija Djekic and many others.

Facilities:

Laboratory equipment for high voltage electrical discharge, pulsed electric fields, high power ultrasound, sustainability, industry 4.0 tool, green extractions facilities, analytical devices.