

Bahar Aliakbarian, Ph. D.

Curriculum of Scientific Research Work & Teaching Activities

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■ 1. General Information

1.1 Personal Information

- ◆ Place and Date of Birth: Tehran, 10/4/1978
- ◆ Home Address: Via Francesco Nullo 6A/11, Genova, Italy
- ◆ Current Position: Research Associate Professor, Michigan State University
- ◆ Work Address: 715 E. Main Street, Suite 115, Midland, MI 48640
- ◆ Telephone: +1 989-423-2049
- ◆ Mobile: +1 989-259-9897
- ◆ Fax: +1 989- 794-6181
- ◆ E-mail: baharA@msu.edu

1.2 Scientific Productivity Indicators

H Index **18** (Scopus) with **811** citations. ORCID ID: orcid.org/0000-0002-9425-5949.

1.3 Academic Degrees

- ◆ **Degree in Public Management**, 1996-2000. University of Allameh Tabatabaei, Faculty of Accounting and Management, Tehran, Iran. Final score: 16.69/20.
- ◆ **Degree in Chemical Engineering-Food Sciences**, 1996-2002. Islamic Azad University of Science And Research Campus, Tehran, Iran. Thesis title: “Food color from beetroot: study of the production line design”. Final score: 14.07/20.
- ◆ **Master in Chemical Engineering**, 2004-2006. University of Genova, Faculty of Engineering, Department of Chemical and Process Engineering “G.B. Bonino” (DICheP), Genova, Italy. Thesis title: “Study of operative variables for production of pharmaceutical & food industry Intermediates using Biotransformation”. Final score: 110/110 cum laude.
- ◆ **PhD degree in Chemical, Process and Material Engineering**, 2006-2009. University of Genova, School of Innovative Sciences and Technologies in Industrial Engineering. Department of Chemical and Process Engineering “G.B. Bonino” (DICheP), Genova, Italy. Dissertation title: “Innovative Methods to Improve Olive Oil Quality and Extraction Outputs”.

1.4 Academic Positions

- ◆ 2017: **Research Associate Professor**, Michigan State University, Midland Research Institute for Value Chain Creation.
- ◆ 2014-2015 and 2015-2017: **Adjunct Professor** for the course of “Environmental Impact of Chemical Processes”, ING-IND/24, Mechanical Engineering Department, Polytechnic School, Genova University.
- ◆ 2015-2017: **Adjunct Professor** for the course of “Chemical and Biochemical Processes and Plants for Energy”, ING-IND/25, Meccanical Engineering Department, Polytechnic School, Genova University.

- ◆ 2016-2017: **Postdoctoral Researcher** in Polytechnic School, Faculty of Engineering, Department of Civil, Chemical and Environmental Engineering (DICCA), “Production of biodegradable scaffolds as implants in vascular field”, ING-IND/25, Chemical Plants, University of Genova, Italy.
- ◆ 2015-2016: **Postdoctoral Researcher** in Polytechnic School, Faculty of Engineering, Department of Civil, Chemical and Environmental Engineering (DICCA), “Production of biodegradable scaffolds as implants in vascular field”, ING-IND/25, Chemical Plants, University of Genova, Italy.
- ◆ 2013-2015: **Postdoctoral Researcher** in Polytechnic School, Faculty of Engineering, Department of Civil, Chemical and Environmental Engineering (DICCA), Awarded by European Social Fund Liguria Region 2007-2013 DGR 1283/2011, “Purification of gaseous emission from storage of petroleum products and valorization of related wastes”, ING-IND/25, Chemical Plants, University of Genova, Italy.
- ◆ 2011-2013: **Postdoctoral Researcher** in Faculty of Engineering, Department of Chemical and Process Engineering “G.B. Bonino”, “Valorization of agro-industry wastes by non conventional techniques”, ING-IND/25, Chemical Plants, University of Genova, Italy.
- ◆ 15 April 2011 to 15 September 2011: **Research Fellowship** in School of Chemical and Biomolecular Engineering, Awarded by Department of Education, Employment and Workplace Relations (DEEWR), “An environmentally-friendly extraction technique to recovery valuable compounds from Vitis vinifera wastes: Sub-critical water extraction”, University of Sydney, Australia.
- ◆ 2009-2011: **Postdoctoral Researcher** in Faculty of Engineering, Department of Chemical and Process Engineering “G.B. Bonino”, “Seizure of CO₂ produced from anaerobic digestion of complex organic matrices and from combustion smokes in algae photo-bioreactor”, CHIM/11, Chemistry and Biotechnology of Fermentation, University of Genova, Italy.
- ◆ January 2009 to March 2009: **Research Fellowship** in Faculty of Engineering, Department of Chemical and Process Engineering “G.B. Bonino”, “Bibliographical studies for cold gas depuration methods obtained from biomass gasification in static bed according to the final utilization of the gas”, University of Genova, Italy.

1.5 International Awards

- ◆ **Endeavour Research Award** (ERF PDR 2318 2011), Founded by “Department of Education, Employment and Workplace Relations (DEEWR)”, Australia, University of Sydney, School of Chemical and Biomolecular Engineering, Sydney, Australia, Research title: “An environmentally-friendly extraction technique to recovery valuable compounds from Vitis vinifera wastes: Sub-critical water extraction”.

1.6 Research Activity Abroad

- ◆ **Scholar Scientific Visitor** (November 2013)
Laboratoire d'Ingénierie des Biomolécules, Université de Lorraine, Nancy, **France**. Research title: “Nanovectorization of a natural antioxidant”.

◆ **Scholar Scientific Visitor** (from March 2013 to September 2013)

Khademhosseini Laboratory, Massachusetts Institute of Technology, Harvard-MIT Health Sciences & Technology, Cambridge, MA, **USA**. Research title: “Fabrication of PGS-PCL scaffolds fortified with *l*-resveratrol for tissue engineered vascular implantation”.

◆ **Postdoctoral Research Fellow** (from April 2011 to September 2011)

Awarded by “Department of Education, Employment and Workplace Relations (DEEWR)”, Bioengineering and Biophysics laboratory, School of Chemical and Biomolecular Engineering, University of Sydney, **Australia**. Research title: “An environmentally-friendly extraction technique to recovery valuable compounds from Vitis vinifera wastes: Sub-critical water extraction”.

◆ **PhD Research Fellow** (from October 2008 to January 2009)

Bioengineering and Biophysics laboratory, School of Chemical and Biomolecular Engineering, University of Sydney, **Australia**. Research title: “Dilute acid hydrolysis of rice husk for ethanol production”.

■ 2. Teaching and Tutoring Activities

2.1 Teaching

2.2.1 Official Teaching

- ◆ A.Y. 2017: **Adjunct Professor** for the official course of **PhD program** in Civil, Chemical and Environmental Engineering. Course title: “Technologies and processes for formulation of innovative and high added valued products”. University of Genova, Italy.
- ◆ A.Y. 2015-2017: **Adjunct Professor** for the official course of **Master program** in Environmental and Energy Engineering. Course title: “Chemical and Biochemical Processes and Plants for Energy”, ING-IND/25, Department of Mechanics, Energetics, Management and Transportation (DIME), Polytechnic School, Genova University.
- ◆ A.Y. 2014-2016: **Adjunct Professor** for the official course of **B.Sc. program** in Industrial, Environment and Energy Management Engineering. Course title: “Environmental Impact of Chemical Processes” ING-IND/24, Department of Mechanics, Energetics, Management and Transportation (DIME), Faculty of Engineering, University of Genova.
- ◆ A.Y. 2012-2017: **Teaching activities and tutorials** to official course of **Master program** in Chemical Engineering. Course title: “Chemical Plants and Processes for Food Industry”, ING-IND/25, Department of Civil, Chemical and Environmental Engineering, Polytechnic School, University of Genova, Italy.
- ◆ A.Y. 2014-2015: **Teaching assignment** in Master course of Expert in biotechnology food held by Liguria region, Department of Earth Sciences of the environment and life (DISTAV), University of Genova, Italy.
- ◆ A.Y. 2009-2010: **Teaching assignment** in course of Senior technician for restaurants and valorisation of local and typical products, "IFTS 2009", held by Professional Institute for Hospitality and Catering Marco Polo, Genova, Italy.

2.1.2 Teaching support

- ◆ A.Y. 2012-2015: Teaching support activities and tutorials to official courses of Environmental and Biotechnological Processes, and Industrial microbiology and Biotechnology of Fermentation held by prof. A. Converti. Master in Chemical Engineering, University of Genova, Italy.
- ◆ A.Y. 2013-15: Teaching support activities and tutorials to official course of Technologies and processes for the formulation of innovative products with high added value compounds held by prof. P. Perego. PhD in Civil, Chemical and Environmental Engineering. University of Genova, Italy.
- ◆ A.Y. 2012-2016: Member of the examination boards of the following official courses: Chemical Plants and Food Industry Processes (prof. P. Perego), Environmental and Biotechnological Processes (prof. A. Converti).

2.2 Thesis Supervision as co-advisor

- ◆ Francesca Lovaglio, “Study of process variables for microencapsulation of phenolic from olive pomace using Response Surface Methodology and Artificial Neural Network”, 2016, Master in Chemical Engineering, University of Genova.
- ◆ Laura Morando, “Fabrication of biodegradable vascular prosthesis using electrospinning”, 2016, B.Sc. in Biotechnology, University of Genova.
- ◆ Elena Zattera, “Synthesis of calcium carbonate nanoparticles for biomaterials functionalization”, 2016, Master in Bioengineering, University of Genova.
- ◆ Vittorio Bassano, “Fabrication of biodegradable vascular prosthesis using electrospinning”, 2016, Master in Chemical Engineering, University of Genova.
- ◆ Valeria Kaia, “Using spray-drying technology to improve the solubility of a cocoa based drink”, 2014, Master in Chemical Engineering, University of Genova.
- ◆ Tina Sameti, “High added valued compounds recovery from Olive oil industry”, 2013, B.Sc. in Chemical Engineering, University of Genova.
- ◆ Francesco Pugliano, “Production of fermented milk using agro-food biomass”, 2012, B.Sc. in Prevention techniques in the environment and at the workplace, University of Genova.
- ◆ Danilo Rosello, “Conversion of Oleic acid using acid catalyst”, 2012, B.Sc. in Chemical Engineering, University of Genova.
- ◆ Martina Pesce and Martina Vignolo, “Antioxidants extraction using high pressure and temperature reactor and their application in functional food”, 2011, B.S.c in Chemical Engineering, University of Genova.
- ◆ Luca Vaianell and Francesco Busdraghi, “Medium temperature catalytic conversion of fatty acids using silica”, 2011, B.Sc. in Chemical Engineering, University of Genova.
- ◆ Delaram Rahmani, “Formulation of a fermented milk fortified by antioxidants from agro-food wastes”, 2011, B.Sc. in Biotechnology, University of Genova.

- ◆ Erika Pistarino, “Productive process of olive in brine of Taggiasca cultivar: characterization by NIR spectroscopy and the study of the influence of operative parameters”, 2010, PhD in Chemical, Material and Process Engineering, University of Genova.
- ◆ Eugenia Sannita, “Catalytic conversion of palm oil into biofuels”, 2010, Master in Chemical Engineering, University of Genova.
- ◆ Fabio Lisi, “Olive oil waste treatment and antioxidant recovery using High pressure and temperature reactor”, 2009, B.Sc. in Prevention techniques in the environment and at the workplace, University of Genova.
- ◆ Celeste Scaiola, “ Recovery of antioxidants from agro-food wastes using high pressure and temperature reactor”, 2009, B.Sc. in Chemical Engineering, University of Genova.
- ◆ Alice De Gasapri, “Innovative method to increase antioxidants in olive oil”, 2008, B.Sc. in Chemical Engineering, University of Genova.

■ 3. Research Activities

3.1 Areas of Research

Since her PhD, Bahar Aliakbarian’s research activity interests lie at the integration of fundamentals of **food engineering**, **biochemical**, and **micro- and nano-engineering** technologies that leads to the formulation of new products with biomedical applications. Her research has focused mainly on the use of agro-food wastes, their valorization, characterization and biological evaluation. After her PhD, she continued the research in the Department of Civil, Chemical and Environmental Engineering (DICC) and initiated interdisciplinary collaborations with both national and international groups. She has worked with the group of Vascular Biology in the Department of Surgical Sciences and Integrated Diagnostics (DISC) of the University of Genova for the evaluation of the biological effects of antioxidants extracted from different agro-food matrices. The interdisciplinary collaboration with the vascular surgical laboratory at the School of Medical Sciences & Pharmaceuticals, led to the foundation of a **research center, namely BELONG**. She won an **prestigious award** from the "Department of Education, Employment and Workplace Relations (DEEWR), Australia, for a period of six months in 2011, which gave her the opportunity to conduct part of her research at the "Bioengineering and Biophysics laboratory", **School of Chemical and bimolecular Engineering, University of Sydney** working with sub-critical water extraction technology. In 2013, she made a part of her research in the laboratory of Prof. Khademhosseini in **Massachusetts Institute of Technology, Harvard MIT Health Sciences & Technology** in the field of bioengineering and tissue engineering and synthesis of biomaterials. During this time she improved her knowledge on the development of biomaterials and engineered systems for tissue engineering applications. She gained experiences in the use of the technique of electrospinning, in the production of "hydrogel" and in the interaction of biopolymers with the cellular environment.

She have gained extensive expertise in different **extraction technologies of high-added value compounds from different biomasses**, **encapsulation methodologies**, **fully chemical-physical characterization** of the products and **biological evaluation** of active molecules with antioxidant properties. She has a solid understanding of the analytical techniques that are used for the **characterization** of active compounds, such as UV-absorption, chromatographic, colorimetric, and thermogravimetric analysis, extraction of valuable compounds, antioxidant

activity assays, texture and viscosity measurements, and etc. The extensive directorship of Scientific Work by Bahar Aliakbarian can be summarized in following topics:

- ◆ **Purification, extraction, quantification, and qualification of high-added value compounds**
- ◆ **Biological Validation of high-added value compounds**
- ◆ **Micro/Nanoencapsulation of Active molecules**
- ◆ **Optimisation of Processes for the Production of Probiotics**
- ◆ **Production of Engineered Biomaterials for Biomedical Applications**
- ◆ **Biotechnological Processes & Plants (Fermentation and Digestion)**
- ◆ **Pirolisis and Gassification process for Energy Production and Wate Valorization**

3.2 National and International Scientific Collaborations

- ◆ Massachusetts Institute of Technology, Harvard-MIT Health Sciences & Technology, Cambridge, MA, **USA**, “Tissue Engineering and Biomaterials”, Prof. Ali Khademhosseini (alik@rics.bwh.harvard.edu).
- ◆ University of Sydney, School of Chemical and Biomolecular Engineering, Sydney, **Australia**, “Sub and Super Critical Fluids Extraction”, Prof. Fariba Dehghani (fdehghani@usyd.edu.au).
- ◆ Université de Lorraine, Laboratoire d’Ingénierie des Biomolécules, Nancy Cedex, **France**, “Nanovectorization and Drug Delivery”, Prof. Elmira Arab-Tehrany (elmira.arab-tehrany@ensaia.inpl-nancy.fr).
- ◆ Universidade de São Paulo, Faculdade de Ciências Farmacêuticas, Sao Paulo, **Brasil**, “Functional Foods”, Prof. Ricardo Pinheiro de Souza Oliveira (rpsolive@usp.br).
- ◆ Sousse University, Laboratory of Chemistry, Higher Institute of Agronomy, Chott Meriam, **Tunisia**, “Agricultural Biomass Valorization”, Prof. Mongi Seffen (mongiseffen@yahoo.fr).
- ◆ University of Osijek , Faculty of Food Technology, Osijek, **Croatia**, “Extraction of phenolic compounds from corn silage”, Prof. Bucić-Kojić (Ana.Bucic@ptfos.hr).
- ◆ University of Turin, Department of Drug Science and Technology, **Turin**, Italy, “High added Value Compounds Extraction”, Prof. Giancarlo Cravotto (giancarlo.cravotto@unito.it).
- ◆ University of Salerno, Department of Chemical and Food Engineering, **Salerno**, Italy, “Nanotechnology, Biomaterials”, Prof. Ernersto Reverchon (ereverchon@unisa.it).
- ◆ University of Genova, Department of surgical sciences and integrated diagnostic (DISC), **Genova**, Italy, “Biological Evaluation of High Added Value Compounds”, Prof Domenico Palombo (Domenico.Palombo@unige.it).
- ◆ University of Genova, Department of Chemistry and Industrial Chemistry, **Genova**, Italy, “Synthesis and Environmental Depuration Technology”, Prof. Maurizio Ferretti (ferretti@chimica.unige.it).
- ◆ University of Genova, Department of Pharmacy, **Genova**, Italy, “Near Infra-Red Spectroscopy”, Prof. Silvia Lanteri (silvia@dictfa.unige.it).

3.3 Projects financed by Industry

- ◆ Mialn Center of Food low and Policy, “ Wood materials in contact with food (MOCA): a container of cultural and biochemical value”, 2016-2017, Mialn, Italy, (60000 Euro).

- ◆ Ente Institut Agricole Régional, “Longevity in a swallow of apple and Grapes for life”, 2014-2015, Val da Osta, Italy, (65000 Euro).
- ◆ D’Appolonia, “Identification of the most significant fields of research and technological development for the sectors of the processing industry, renewable energy and biobased industry in general”, Genova, Italy, (30000 Euro).
- ◆ Azienda Agricola Castellari, “Valorization of olive leaves”, 2014, Cesano sul Neva, Italy, (10000 Euro).
- ◆ Siemens S.p.a., “Analysis and Evaluation of Food & Beverage Process Industry”, 2011-2013, Genova, Italy, (15000 Euro).
- ◆ COOP Italia s.r.l., “Use of innovative method(s) to improve antioxidant compounds in olive oil”, 2012-2013, (15000 Euro).
- ◆ IRLE s.r.l., “Catalytic production of biofuels from automobile shredder residue”, Pavia, Italy, 2011-2012, (30000 Euro).
- ◆ Idrabel Italia s.r.l., “Treatment of Oil sludge plants Tanks”, Savona, Italy, 2011, (65000 Euro).
- ◆ Ansaldo Energia, “Vegetable oil conversion into fuels”, Genova, Italy, September 2009-December 2011, (20000 Euro).
- ◆ Cobarr S.p.A., “Fermentation of glycerin coming from production of biodiesel”, January-Tortona, Italy, April 2007, (4500 Euro).
- ◆ Chemtex Itali s.r.l., “Fermentation processes from biomass”, Tortona, Italy, December 2007, (45000 Euro).

3.4 Research Organisation Membership

- ◆ Founder and active member of Green Modelling Italia (GMI)-**SPIN OFF** of the university of Genoa (C.F./P.I. 02078640998).
- ◆ Active member of inter-departmental **RESEARCH CENTER** of Biologically Inspired Engineering in Vascular Medicine and Longevity (BELONG).

4. Evaluation, Revisory, and Chairing Activities

Reviewer of the following journals:

- ◆ Journal of Food Engineering
- ◆ Natural Product Research
- ◆ Food Biochemistry
- ◆ Industrial Crops and Products
- ◆ Italian Journal of Food Science
- ◆ Annals of Microbiology
- ◆ Food Chemistry
- ◆ Brazilian Journal of Microbiology

Editorial board of the following journals:

- ◆ Journal of Cell and Molecular Research

Chairing activities:

- ◆ Track Secretary of the "Drug Discovery and Therapy World Congress 2017", Boston, USA.
- ◆ Chair of “Green Extraction of Natural Products 2016”, Turin, Italy.

■ 5. Complete List of Publications

5.1 Scientific Work Published in International Journals

- 1) D. De Faveri, P. Torre, **B. Aliakbarian**, J.M. Domínguez, P. Perego, A. Converti, (2007). Response surface modeling of vanillin production by *Escherichia coli* JM109pBB1. *Biochemical Engineering Journal*, 36(3), 268-275. DOI: 10.1016/j.bej.2007.02.029.
- 2) P. Torre, **B. Aliakbarian**, B. Rivas, J.M. Domínguez, A. Converti, (2008). Release of ferulic acid from corn cobs by alkaline hydrolysis. *Biochemical Engineering Journal*, 40(3), 500-506. DOI: 10.1016/j.bej.2008.02.005.
- 3) D. De Faveri, **B. Aliakbarian**, M. Avogadro, P. Perego, A. Converti, (2008). Improvement of olive oil phenolics content by means of Enzyme formulations: effect of different enzymatic activities and concentrations. *Biochemical Engineering Journal*, 41(2), 149-156. DOI:10.1016/j.bej.2008.04.007.
- 4) **B. Aliakbarian**, D. De Faveri, A. Converti, P. Perego, (2008). Optimisation of Olive Oil Extraction by means of Enzyme Processing Aids using Response Surface Methodology. *Biochemical Engineering Journal*, 42(1), 34-40. DOI: 10.1016/j.bej.2008.05.006.
- 5) B. Rivas Torres, **B. Aliakbarian**, P. Torre, P. Perego, J.M. Domínguez, A. Converti, (2009). Vanillin bioproduction from alkaline hydrolyzate of corn cob by *Escherichia coli* JM 109/pBB1. *Enzyme and Microbial Technology*, 44(3), 154-158. DOI: 10.1016/j.enzmictec.2008.10.003.
- 6) **B. Aliakbarian**, F. Dehghani, P. Perego, (2009). The effect of citric acid on the phenolic contents of olive oil. *Food Chemistry*, 116(3), 617-623. DOI: 10.1016/j.foodchem.2009.02.077.
- 7) A. Converti, **B. Aliakbarian**, J.M. Domínguez, G. Bustos Vázquez, P. Perego, (2010). Microbial production of biovanillin. *Brazilian Journal of Microbiology*, 41(3), 519-530. DOI: 10.1590/S1517-83822010000300001.
- 8) A.A. Casazza, **B. Aliakbarian**, S. Mantegna, G. Cravotto, P. Perego, (2010). Extraction of phenolics from *Vitis vinifera* wastes using non-conventional techniques. *Journal of Food Engineering*, 100(1), 50-55. DOI: 10.1016/j.jfoodeng.2010.03.026.
- 9) **B. Aliakbarian**, A.A. Casazza, P. Perego, (2011). Valorisation of olive oil solid waste using high pressure-high temperature reactor. *Food Chemistry*, 128(3), 704-710. DOI: 10.1016/j.foodchem.2011.03.092.
- 10) A.A. Casazza, **B. Aliakbarian**, P. Perego, (2011). Recovery of phenolic compounds from grape seeds: effect of extraction time and solid-liquid ratio. *Natural Product Research*, 25(18), 1751-1761. DOI: 10.1080/14786419.2010.524889.
- 11) A.A. Casazza, **B. Aliakbarian**, D. De Faveri, L. Fiori, P. Perego, (2012). Antioxidants from winemaking wastes: a study on extraction parameters using Response Surface Methodology. *Journal of Food Biochemistry*, 36(1), 28-37. DOI: 10.1011/j.1745-4514.2010.00511.x.
- 12) A.M. Ben Hamissa, M. Seffen, **B. Aliakbarian**, A.A. Casazza, P. Perego, A. Converti, (2012). Phenolics extraction from *Agave americana* (L.) leaves using high-temperature, high-pressure reactor. *Food and Bioprocess Technology*, 90(1), 17-21. DOI: 10.1016/j.jfbp.2010.11.008.
- 13) A.A. Casazza, **B. Aliakbarian**, E. Sannita, P. Perego, (2012). High-pressure high-temperature extraction of phenolic compounds from grape skins. *International Journal of Food Science and Technology*, 47(2), 399-405. DOI: 10.1111/j.1365-2621.2011.02853.x.
- 14) **B. Aliakbarian**, D. Palmieri, A.A. Casazza, D. Palombo, P. Perego, (2012). Antioxidant activity and biological evaluation of olive pomace extract. *Natural Product Research*, 26(24), 2280-2290. DOI: 10.1080/14786419.2012.660692.
- 15) M. Latoui, **B. Aliakbarian**, A.A. Casazza, M. Seffen, A. Converti, P. Perego, (2012). Extraction of Phenolic Compounds from *Vitex agnus-castus* L. *Food and Bioprocess Technology*, 90(4), 748-754. DOI: 10.1016/j.fbp.2012.01.003.

- 16) D. Palmieri, **B. Aliakbarian**, A.A. Casazza, N. Ferrari, G. Spinella, B. Pane, G. Cafueri, P. Perego, D. Palombo, (2012). Effects of polyphenol extract from olive pomace on anoxia-induced endothelial dysfunction. *Microvascular Research*, 83(3), 281-289. DOI: 10.1016/j.mvr.2012.02.010.
- 17) **B. Aliakbarian**, A. Fathi, P. Perego, F. Dehghani, (2012). Extraction of Antioxidants from Winery Wastes using Subcritical Water. *Journal of Supercritical Fluids*, 65, 18-24. DOI: 10.1016/j.supflu.2012.02.022.
- 18) E. Sannita, **B. Aliakbarian**, A.A. Casazza, P. Perego, G. Busca, (2012). Medium-temperature conversion of biomass and wastes into liquid products, A review. *Renewable & Sustainable Energy Reviews*. 16(8), 6455-6475. DOI: 10.1016/j.rser.2012.06.017.
- 19) E. Pistarino, **B. Aliakbarian**, A.A. Casazza, M. Paini, M.E. Cosulich, P. Perego, (2013). Combined effect of starter culture and temperature on phenolic compounds during fermentation of Taggiasca black olives. *Food Chemistry*, 138(2-3), 2043-2049. DOI: 10.1016/j.foodchem.2012.11.021.
- 20) T.K. Phung, A.A. Casazza, **B. Aliakbarian**, E. Finocchio, P. Perego, G. Busca, (2013). Catalytic conversion of ethyl acetate on alumina as a model of catalytic conversion of vegetable oils to biofuels. *Chemical Engineering Journal*, 215-216, 838-848. DOI: 10.1016/j.cej.2012.11.057.
- 21) R.P.S. Oliveira, A.Y. Casazza, **B. Aliakbarian**, P. Perego, A. Converti, M.N. Oliveira, (2013). Influence of fructooligosaccharides on the fermentation profile and viable counts in a synbiotic low fat milk. *Brazilian Journal of Microbiology*, 44(2), 431-434. DOI: 10.1590/S1517-8382013000200014.
- 22) V. Caratto, **B. Aliakbarian**, A.A. Casazza, L. Setti, C. Bernini, P. Perego, M. Ferretti, (2013). Inactivation of *Escherichia coli* on anatase and rutile nanoparticles using UV and fluorescent light. *Materials Research Bulletin*, 48(6), 2095-2101. DOI: 10.1016/j.materresbull.2013.02.024.
- 23) D. Frumento, A.P. do Espirito Santo, **B. Aliakbarian**, A.A. Casazza, M. Gallo, A. Converti, P. Perego, (2013). Development of Milk Fermented with *Lactobacillus acidophilus* Fortified with *Vitis vinifera* Marc Flour. *Food Technology and Biotechnology*, 51(3), 370-375. ISSN 1330-9862.
- 24) G. Pigatto, A. Lodi, **B. Aliakbarian**, A. Converti, R.M. Gonçalves da Silva, M.S. Alves Palma, (2013). Phenol oxidation by mushroom waste extracts. A kinetic and thermodynamic study. *Bioresource Technology*, 143, 678-681. DOI: 10.1016/j.biortech.2013.06.069.
- 25) M. Lataoui, M. Seffen, A.A. Casazza, **B. Aliakbarian**, A. Converti, P. Perego, (2014). Optimization of phenolics recovery from *Vitex agnus-castus* Linn. leaves by high-pressure and temperature extraction. *Natural Product Research*, 28(1), 67-69. DOI: 10.1080/14786419.2013.832678.
- 26) L. Bouarab, B. Maherani, A. Kheirrolomoom, M. Hasan, **B. Aliakbarian**, M. Linder, E. Arab-Tehrany, (2014). Influence of lecithin-lipid composition on physico-chemical properties of nanoliposomes loaded with a hydrophobic molecule. *Colloids and Surfaces B: Biointerfaces*, 115, 197-204. DOI: 10.1016/j.colsurfb.2013.11.034.
- 27) E.Y. Ortiz Montoya, A.A. Casazza, **B. Aliakbarian**, P. Perego, A. Converti, J.C. Monteiro de Carvalho, (2014). Production of *Chlorella vulgaris* as a source of essential fatty acids in a tubular photobioreactor continuously fed with air enriched with CO₂ at different concentrations. *Biotechnology Progress*, 30(4), 916-922. DOI: 10.1002/btpr.1885.
- 28) P.F. Ferrari, D. Palmieri, A.A. Casazza, **B. Aliakbarian**, P. Perego, D. Palombo, (2014). TNF α -induced endothelial activation is counteracted by polyphenol extract from UV-stressed cyanobacterium *Arthrospira platensis*. *Medicinal Chemistry Research*, 24(1), 275-282. DOI: 10.1007/s00044-014-1126-6.

- 29) C.G. Lopresto, F. Petrillo, A.A. Casazza, **B. Aliakbarian**, P. Perego, V. Calabrò, (2014). A Non-conventional method to extract D-limonene from waste lemon peels and comparison with traditional soxhlet extraction. *Separation and Purification Technology*, 137, 13-20. DOI: 10.1016/j.seppur.2014.09.015.
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