Bahar Aliakbarian, Ph. D.

Curriculum of Scientific Research Work & Teaching Activities

1. Personal Information

- Place and Date of Birth: Tehran-Iran, 10/4/1978
- Work Address: Department of Civil, Chemical & Environmental Engineering (DICCA), Via Opera Pia, 15, 16145 Genova
- Telephone: +39 010-3532584; Mobile: +39 333-7772633
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2. Scientific Productivity Indicators

From the Scopus system of Bibliographic Information referencing, H Index is equal to **13**, with **404** citations.

3. Academic Degrees

- **Degree in Public Management,** 1996-2000. University of Allameh Tabatabaei, Faculty of Accounting and Management, Tehran, Iran. (16.69/20)
- **Degree in Chemical Engineering-Food Sciences**, 1996-2002. Islamic Azad University of Science And Research Campus,Tehran, Iran. (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. (110/110 cum laude).
- **Ph.D. 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.

4. Research Activity Abroad

- 6 months Short term scholar specialist (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 *t*-resveratrol for tissue engineered vascular implantation".

- 6 months Research Fellowship Award (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".

- 3 months stage (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".

5. Areas of Research

- Biotechnological Processes & Plants Research

- Energy Sector Research
- Optimisation of Processes for the Production of Probiotics
- Agro-food Biotechnology
- Development of Nutraceutical Products & Functional Foods
- Biological Validation & Micro/Nanoencapsulation of Antioxidant substances
- Production of Bioresorbable Engineered Biomaterials Research

6. Scientific Work Published in International Journals from 2010

1) **B. Aliakbarian**, F. Dehghani & P. Perego, "The effect of citric acid on the phenolic contents of olive oil", Food Chemistry, 116(3), 617-623 (2009). DOI: 10.1016/j.foodchem.2009.02.077.
2) A. Converti1; **B. Aliakbarian**; J.M. Domínguez; G. Bustos Vázquez & P. Perego, "Microbial production of biovanillin", Brazilian Journal of Microbiology, 41(3), 519-530 (2010). DOI: 10.1590/S1517-83822010000300001.
3) A.A. Casazza, **B. Aliakbarian**, S. Mantegna, G. Cravotto & P. Perego, "Extraction of phenolics from Vitis vinifera wastes using non-conventional techniques", Journal of Food Engineering, 100(1), 50-55 (2010). DOI: 10.1016/j.jfoodeng.2010.03.026.
4) **B. Aliakbarian**, A.A. Casazza & P. Perego, "Valorisation of olive oil solid waste using high pressure-high temperature reactor", Food Chemistry, 128, 704–71, (2011). DOI: 10.1016/j.jfoodchem.2011.03.092.
5) A.A. Casazza, **B. Aliakbarian** & P. Perego, "Recovery of phenolic compounds from grape seeds: effect of extraction time and solid-liquid ratio", Natural Product Research, 25(18), 1751-1761 (2011). DOI: 10.1080/14786419.2010.524889.
6) A.A. Casazza, **B. Aliakbarian**, D. De Faveri, L. Fiori & P. Perego, "Antioxidants from winemaking wastes: a study on extraction parameters using Response Surface Methodology", Journal of Food Biochemistry, 36(1), 28-37 (2012). DOI: 10.101111/j.1745-4514.2010.00511.x.
7) A.M. Ben Hamissa, M. Seffen, **B. Aliakbarian**, A.A. Casazza, P. Perego & A. Converti, "Phenolics extraction from Agave americana (L.) leaves using high-temperature, high-pressure reactor", Food and Bioproducts Processing, 90(1), 17-21 (2012). DOI: 10.1016/j.jfpb.2010.11.008.
8) A.A. Casazza, **B. Aliakbarian**, E. Sannita & P. Perego, "High-pressure high-temperature extraction of phenolic compounds from grape skins", International Journal of Food Science and Technology, 47(2), 399-405 (2012). DOI: 10.1111/j.1365-2621.2011.02853.x.
9) **B. Aliakbarian**, D. Palmieri, A.A. Casazza, D. Palombo & P. Perego, "Antioxidant activity and biological evaluation of olive pomace extract", Natural Product Research, 26(24), 2280-2290 (2012). DOI: 10.1080/14786419.2012.660692.
10) M. Latoui, **B. Aliakbarian**, A.A. Casazza, M. Seffen, A. Converti & P. Perego," Extraction of Phenolic Compounds from Vitex agnus-castus L.", Food and Bioproducts Processing, 90, 748– 754 (2012). DOI: 10.1016/j.fbp.2012.01.003.
11) D. Palmieri, **B. Aliakbarian**, A.A. Casazza, N. Ferrari, G. Spinella, B. Pane, G. Cafueri, P. Perego & D. Palombo, "Effects of polyphenol extract from olive pomace on anoxia-induced endothelial dysfunction", Microvascular Research, 83, 281–289 (2012). DOI: 10.1016/j.mvr.2012.02.010.
12) **B. Aliakbarian**, A. Fathi, P. Perego & F. Dehghani, "Extraction of Antioxidants from Winery Wastes using Subcritical Water", Journal of Supercritical Fluids, 65, 18– 24 (2012). DOI: 10.1016/j.supflu.2012.02.022.

13) E. Sannita, **B. Aliakbarian**, A.A. Casazza, P. Perego & G. Busca, "Medium-temperature conversion of biomass and wastes into liquid products. A review", Renewable & Sustainable Energy Reviews. 16, 6455–6475 (2012). DOI: 10.1016/j.rser.2012.06.017.
14) E. Pistarino, **B. Aliakbarian**, A.A. Casazza, M. Paini, M.E. Cosulich & P. Perego, "Combined effect of starter culture and temperature on phenolic compounds during fermentation of Taggiasca black olives", Food Chemistry, 138, 2043–2049 (2013). DOI: 10.1016/j.foodchem.2012.11.021.
15) T.K. Phung, A.A. Casazza, **B. Aliakbarian**, E. Finocchio, P. Perego & G. Busca, "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 (2013). DOI: 10.1016/j.cej.2012.11.057.
16) R.P.S. Oliveira, A.Y. Casazza, **B. Aliakbarian**, P. Perego, A. Converti, & M.N. Oliveira, "Influence of fructooligosaccharides on the fermentation profile and viable counts in a synbiotic low fat milk", Brazilian Journal of Microbiology, Volume 44, Issue 2, Pages 431-434 (2013). DOI: 10.1590/S1517-83820130002000014.
17) V. Caratto, **B. Aliakbarian**, A.A. Casazza, L. Setti, C. Bernini & P. Perego, M. Ferretti, "Inactivation of Escherichia coli on anatase and rutile nanoparticles using UV and fluorescent light", Materials Research Bulletin, Volume 48, Pages 2095-2101 (2013). DOI: 10.1016/j.matterresbull.2013.02.024.
18) D. Frumento, A.P. do Espirito Santo, **B. Aliakbarian**, A.A. Casazza, M. Gallo, A. Converti & P. Perego, "Development of Milk Fermented with Lactobacillus acidophilus Fortified with Vitis vinifera Marc Flour", Food Technology and Biotechnology, Volume 51, Issue 3, Pages 370-375 (2013). ISSN 1330-9862.
19) G. Pigatto, A. Lodi, **B. Aliakbarian**, A. Converti, R.M. Gonçalves da Silva, M.S. Alves Palma, "Phenol oxidation by mushroom waste extracts. A kinetic and thermodynamic study", Bioresource Technology, Volume 143, Pages 678-681 (2013). DOI: 10.1016/j.biortech.2013.06.069.
20) M. Lataoui, M. Seffen, AA. Casazza, **B. Aliakbarian**, A. Converti & P. Perego, "Optimization of phenolics recovery from Vitex agnus-castus Linn. leaves by high-pressure and temperature extraction", Natural Product Research, Volume 28, Issue 1, Pages 67-69 (2014). DOI: 10.1080/14786419.2013.832678.
21) L. Bouarab, B. Maherani., A. Kheirolomoom., M. Hasan, **B. Aliakbarian**, M. Linder & E. Arab-Tehrany, "Influence of lecithin-lipid composition on physico-chemical properties of nanoliposomes loaded with a hydrophobic molecule", Colloids and Surfaces B: Biointerfaces, 115, 197-204 (2014). DOI: 10.1016/j.colsurfb.2013.11.034.
22) E.Y. Ortiz Montoya, A.A. Casazza, **B. Aliakbarian**, P. Perego, A. Converti & J.C. Monteiro de Carvalho, "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, Volume 30, Issue 4, Pages 916-922 (2014). DOI: 10.1002/btpr.1885.
23) P.F. Ferrari, D. Palmieri, A.A. Casazza, **B. Aliakbarian**, P. Perego & D. Palombo, "TNFα-induced endothelial activation is counteracted by polyphenol extract from UV-stressed cyanobacterium Arthrospira platensis", Medicinal Chemistry Reserach, Volume 24, Pages 275-282 (2014). DOI: 10.1007/s00044-014-1126-6.
24) C.G. Lopresto, F. Petrillo, A.A. Casazza, **B. Aliakbarian**, P. Perego & V. Calabrò, "A Non-conventional method to extract D-limonene from waste lemon peels and comparison with traditional soxhlet extraction", Separation and Purification Technology, Pages 13-20 (2014). DOI: 10.1016/j.seppur.2014.09.015.
25) E. Daneshvar, M.S. Sohrabi, M. Kousha, A. Bhatnagar, **B. Aliakbarian**, A. Converti & A.C. Norrström, "Shrimp shell as an efficient bioadsorbent for Acid Blue 25 dye removal from

aqueous solution", Journal of the Taiwan Institute of Chemical Engineers, Volume 45, Issue 6, Pages 2926-2934 (2014). DOI: 10.1016/j.jtice.2014.09.019.

26) M. Comotto, A.A. Casazza, **B. Aliakbarian**, V. Caratto, M. Ferretti & P. Perego. "Influenece of TiO_2 nanoparticles on growth and phenolic compounds production in photosynthetic microorganisms", The Scientific World Journal, Volume 2014, Pages 1-9, (2014). DOI:10.1155/2014/961437.
27) **B. Aliakbarian**, M. Casale, M. Paini, A.A. Casazza, S. Lanteri & P. Prego, "Production of a novel fermented milk fortified with natural antioxidants and its analysis by NIR spectroscopy", LWT-Food Science and Technology, Volume 62, Issue 1, Pages 376-383 (2015). DOI: 10.1016/j.lwt.2014.07.037.
28) M. Paini, **B. Aliakbarian**, A.A. Casazza, P. Perego, C. Ruggiero & L. Pastorino. "Chitosan/dextran multilayer microcapsules for polyphenols co-delivery", Materials Science and Engineering C, Volume 46, Pages 374-380 (2015). DOI: 10.1016/j.msec.2014.10.047.
29) M. Paini, **B. Aliakbarian**, A.A. Casazza, A. Lagazzo, R. Botter & P. Perego. "Microencapsulation of phenolic compounds from olive pomace using spray drying: A study of operative parameters", LWT-Food Science and Technology, Volume 62, Pages 177-186 (2015). DOI:10.1016/j.lwt.2015.01.022.
30) M. Kuzmanović, M. Tišma, A. Bucić-Kojić, A.A. Casazza, M. Paini, **B. Aliakbarian** & P. Perego, "High–Pressure and Temperature Extraction of Phenolic Compounds from Corn Silage", Chemical Engineering Transactions, Volume 43, Pages 133-138 (2015). DOI: 10.3303/CET1543023.
31) **B. Aliakbarian**, M. Paini, A.A. Casazza & P. Perego, "Effect of Encapsulating Agent on Physical-Chemical Characteristics of Olive Pomace Polyphenols-Rich Extracts", Chemical Engineering Transactions, Volume 43, Pages 97-102 (2015). DOI: 10.3303/CET1543017.
32) **B. Aliakbarian**, A.A. Casazza & P. Perego, "Kinetic and Isotherm Modelling of the Adsorption of Phenolic Compounds from Olive Mill Wastewater onto Activated Carbon", Food Technology and Biotechnology, Volume 53, Issue 2, Pages 207-214 (2015). DOI: 10.17113/ft b.53.02.15.3790.
33) P. Monteiro Souza, **B. Aliakbarian**, E.X. Ferreira Filho, P. Oliveira Magalhães, A. Pessoa Junior, A. Converti & P. Perego, "Kinetic and thermodynamic studies of a novel acid protease from Aspergillus foetidus", International Journal of Biological Macromolecules, Volume 81, Pages 17-21, (2015). DOI: 10.1016/j.ijbiomac.2015.07.043.
34) A. Enrico, **B. Aliakbarian**, P. Perego & P. Costamagna, "Micro-Modelling of IT-SOFC Electrodes Manufactured through Electrospinning", ECS Transactions, Volume 68(1), Pages 857-865 (2015). DOI: 10.1149/06801.0857ecst.
35) A.A. Casazza, **B. Aliakbariana**, M. Mura, M. Chasseur, M. Freguglia, S. Valentini, D. Palombo & P. Perego, "Polyphenols from Grape and Apple Skin: a Study on Non-Conventional Extractions and Biological Activity on Endothelial Cell Cultures", Chemical Engineering Transactions, Volume 44, Pages 205-210 (2015). DOI: 10.3303/CET1544035.
36) A.A. Casazza, P.F Ferrari, **B. Aliakbarian**, A. Converti & P. Perego, "Effect of UV radiation or titanium dioxide on polyphenol and lipid contents of Arthospira (Spirulina) platensis", Algal Research, Volume 12, Pages 308-315, (2015). DOI: 10.1016/j.algal.2015.09.012.
37) A. Tamayol, A. Hassani Najafabadi, **B. Aliakbarian**, E. Arab-Tehrany, M. Akbari, N. Annabi, D. Juncker & A. Khademhosseini, "Hydrogel Templates for Rapid Manufacturing of Bioactive Fibers and 3D Constructs", Advanced Health Materials, Volume 4, Issue 14, Pages 2050-, (2015). DOI: ADHM201500492.xml.

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