UNIVERSITÀ DEGLI STUDI DELL'AQUILA
Prof. Ionela Poenita Birloaga
Curriculum scientifico

(Aggiornato il 2023/02/13)

Dr. Eng. Ionela Birloaga

Education and training

2018- present Research associate professor in Chemical Engineering at University of L?Aquila, Department of In dustrial and Information Engineering and Economics

2016-2018 Assistant professor at University of L?Aquila, Department of Industrial and Information En gineering and Economics

2012 - 2015 PhD of the Doctoral Course ?Chemical and Biotechnological Innovative Processes?, University of L ?Aquila, L?Aquila, Italy.

Research interests and skills

- Recovery of precious and base metals from WEEE, spent batteries and Industrial wastes

- Recovery of Rare Earths from WEEE and industrial wastes

- Industrial Waste Waters Treatment

International Projects:

- HydroWEEE demo (Final Report Summary - HYDROWEEE DEMO (Innovative

Hydrometallurgical Processes to recover Metals from WEEE including lamps and batteries -

Demonstration) | FP7 | CORDIS | European Commission (europa.eu))

- FENIX (Project FENIX - Future business models for the Efficient recovery of Natural and Industrial

secondary resources in eXtended supply chains contexts (fenix-project.eu))

- PEACOC (PEACOC Project (peacoc-h2020.eu))

- NEW-RE Project ? EIT RAW MATERIALS

EU patentes

- Gold-REC1 - PROCESS FOR THE HYDROMETALLURGICAL TREATMENT OF ELECTRONIC BOARDS (

- Gold-REC2 - HYDROMETALLURGICAL METHOD FOR THE RECOVERY OF BASE METALS AND

PRECIOUS METALS FROM A WASTE MATERIAL

- Hydro-Nd - HYDROMETALLURGICAL METHOD FOR THE TREATMENT OF PERMANENT MAGNETS

Bibliometric data

Source Scopus (03/01/2023): N° of Publication International Journals: 21; Hindex (2013-2023) 9; Citations: 592

List of the last 10 relevant publications:

1) Birloaga, I., Vegliò, F.

An innovative hybrid hydrometallurgical approach for precious metals recovery from secondary resources, (2022) Journal of Environmental Management, 307, art. no. 114567, . DOI: 10.1016/j.jenvman.2022.114567

2.
Ippolito, N. M., Birloaga, I., Ferella, F., Centofanti, M., Vegliò, F. (2021). Preliminary Study on Gold Recovery f rom High Grade E-waste by Thiourea Leaching and Electrowinning. Minerals, vol. 11, ISSN: 2075-163X,

3. Birloaga, I., Ippolito, N.M., Vegliò, FA Mobile Pilot Plant for the Recovery of Precious and Critical Raw Materials (2021) SpringerBriefs in Applied Sciences and Technology, pp. 49-63. DOI: 10.1007/978-3-030-74886-9_5

4. Amato, A., Becci, A., Birloaga, I., De Michelis, I., Ferella, F., Innocenzi, V., Ippolito, N.M., Pillar Jimenez Gomez, C., Vegliò, F., Beolchini, F. Sustainability analysis of innovative technologies for the rare earth e lements recovery (2019) Renewable and Sustainable Energy Reviews, 106, pp. 41-53. DOI: 10.1016/j.rser.2019.02.029

5. Birloaga I., Vegliò F., Overview on hydrometallurgical procedures for silver recovery from various wastes, J ournal of Environmental Chemical Engineering, Volume 6, Issue 2, April 2018, p. 2932-2938.

6. Birloaga I., VeglioF. (2018). Simulation and economic analysis of a hydrometallurgical approach developed for the treatment of waste printed circuit boards (WPCB). GLOBAL NEST JOURNAL, vol. 20, p. 695 699, ISSN: 1790-7632, doi: 10.30955/GNJ.002545

7. Vegliò, F., Birloaga, I., Waste Electrical and Electronic Equipment Recycling: Aqueous Recovery Methods, b ook 1st edition by Woodhead Publishing Series (an imprint of Elsevier) in Electronic and Optical Materials, p. 426, May 2018

8. I. Birloaga, F. Vegliò, Study of multi-step hydrometallurgical methods to extract the valuable content of g old, silver and copper from waste printed circuit boards, Journal of Environmental Chemical Engineering, 4(1), 2016, pp. 20-29

9. I., Birloaga, V., Coman, B., Kopacek, F., Vegliò, An advanced study on the hydrometallurgical processing of w aste computer printed circuit boards to extract their valuable content of metals, Waste Management, December 2014, Volume 34, Issue 12, pp. 2581?2586

10. I. Birloaga, I. DeMichelis, F. Ferella, M. Buzatu, F. Vegliò, Study on the influence of various factors in the h ydrometallurgical processing of waste printed circuit boards for copper and gold recovery?, Waste Ma nagement, April 2013, Volume 33, Issue 4, pp. 935- 941