UNIVERSITÀ DEGLI STUDI DELL'AQUILA
Prof. Francesco Vegliò
Curriculum scientifico

(Aggiornato il 2022/11/08)

Education and training

- 2005-2022: Full Professor in Chemical Engineering - L'Aquila University

- 2003-2004: Associate Professor in Chemical Engineering - L'Aquila University

- 1999-2003: Associate Professor in Chemical Engineering - Genoa University

- 1991-1998: Assistant Professor - L'Aquila University

- 1982-1987 : ?Università degli Studi dell'Aquila - Master Degree in Chemical Engineering 110/110 cum Laude

- 1980-81 : ?IT?S A. Volta? Pescara - Scientific High School Diploma 60/60

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

- Environmental technologies (biosorption and membrane technologies)

- Mineral Processing

International Projects:

- HydroWEEE and 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))
- LIFE BITMAPS (Life Bitmaps Project)
- PEACOC (PEACOC Project (peacoc-h2020.eu))
- TREASURE (Home - Treasure (treasureproject.eu))
- PASSENGER (PASSENGER - ESF - Science Connect)

14 National and EU patentes. In the follow the most relevant patents:

- 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
- PROCESS AND PLANT FOR THE TREATMENT OF A WASTEWATER CONTAINING TMAH

Founder of 3 spin-off companies:

- Smart Waste Engineering srl (University of L?Aquila, Italy) ? period 2016-2022
- Biomaterials & Engineering srl (Univeristy of L?Aquila, Italy) ? period 2008-2022
- Ecorecycling srl (University La Sapienza, Rome, Italy) - period 2008-2017

Reviewer of reserch and Industrial projects:

- European projects (FP7, Horizon 2020, Horizon Europe)
- Academy of Finland

- National Center of Science and Technology Evaluation - Kazakhstan

Bibliometric data

Source Scopus (20/02/2022): N° of Publication International Journals: 235; Hindex (1999-2022) 50; Citations: 9037

List of the last 10 relevant publications:

1) Birloaga, I., Vegliò, F.

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

2) Ippolito, N.M., Amato, A., Innocenzi, V., Ferella, F., Zueva, S., Beolchini, F., Vegliò, F.

Integrating life cycle assessment and life cycle costing of fluorescent spent lamps recycling by

hydrometallurgical processes aimed at the rare earths recovery, (2022) Journal of Environmental Chemical Engineering, 10 (1), art. no. 107064, DOI: 10.1016/j.jece.2021.107064

3) Ippolito, N.M., Ferella, F., Innocenzi, V., Trapasso, F., Passeri, D., Belardi, G., Vegliò, F.

Effect of mechanical activation on terbium dissolution from waste fluorescent powders

(2021) Minerals Engineering, 167, art. no. 106906. DOI: 10.1016/j.mineng.2021.106906

4) Birloaga, I., Ippolito, N.M., Vegliò, F.

A 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

5) 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 elements recovery

(2019) Renewable and Sustainable Energy Reviews, 106, pp. 41-53.

DOI: 10.1016/j.rser.2019.02.029

6) Innocenzi, V., Ippolito, N.M., Pietrelli, L., Centofanti, M., Piga, L., Vegliò, F.

Application of solvent extraction operation to recover rare earths from fluorescent lamps

(2018) Journal of Cleaner Production, 172, pp. 2840-2852. DOI: 10.1016/j.jclepro.2017.11.129

7) Ippolito, N.M., Innocenzi, V., De Michelis, I., Medici, F., Vegliò, F.

Rare earth elements recovery from fluorescent lamps: A new thermal pretreatment to improve the

efficiency of the hydrometallurgical process. (2017) Journal of Cleaner Production, 153, pp. 287-298. DOI: 10.1016/j.jclepro.2017.03.195

8) Innocenzi, V., De Michelis, I., Ferella, F., Vegliò, F.

Secondary yttrium from spent fluorescent lamps: Recovery by leaching and solvent extraction

(2017) International Journal of Mineral Processing, 168, pp. 87-94. DOI: 10.1016/j.minpro.2017.09.017

9) Innocenzi, V., De Michelis, I., Ferella, F., Vegliò, F.

Leaching of yttrium from cathode ray tube fluorescent powder: Kinetic study and empirical models

(2017) International Journal of Mineral Processing, 168, pp. 76-86. DOI: 10.1016/j.minpro.2017.09.015

10) Innocenzi, V., Ippolito, N.M., De Michelis, I., Medici, F., Vegliò, F .

A hydrometallurgical process for the recovery of terbium from fluorescent lamps: Experimental

design, optimization of acid leaching process and process analysis (2016) Journal of Environmental Management, 184, pp. 552-559. DOI: 10.1016/j.jenvman.2016.10.026

L'Aquila 8/11/2022 Prof. Francesco Veglio'

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016 (and Dlgs 196/2003), I hereby express my consent to process and use my data provided in this CV.