Antonio **Rubino**

WORK EXPERIENCE

01/01/2021 – CURRENT – Rome, Italy

University research assistant

Department of Chemistry - Sapienza University of Rome

"Optimization of hydrometallurgical processes for the recovery of metals from End-of-Life batteries"

01/11/2020 – 27/12/2020

University research assistant

Department of Chemistry - Sapienza University of Rome

"Valorisation of metal fractions from the treatment of technological waste" (extension period)

01/11/2019 – 31/10/2020 – Roma, Italy

University research assistant

Department of Chemistry - Sapienza University of Rome

"Valorisation of metal fractions from the treatment of technological waste"

10/2018 – 12/2018 – Lisbona, Portugal

Early Stage Researcher (H2020-MSCA-RISE-2017-778045)

Resolution Lab, CENSE, FCT NOVA University of Lisbon

02/2019 – 03/2019 – Lisbona, Portugal

Early Stage Researcher (H2020-MSCA-RISE-2017-778045)

Resolution Lab, CENSE, FCT NOVA University of Lisbon

01/02/2015 – 31/10/2019 – Roma, Italy

Internship/Ph.D. candidate

Department of Chemistry - Sapienza University of Rome

Laboratory of Theory of the Development of Chemical Processes

- 2018-2020: STAFF MEMBER - "Optimization of a zero-waste treatment for the recycling of End-of-Life Photovoltaic modules" O.Ri.Fo. – National (Italian) project co-financed by the Ministry of the Environment and Sea Protection, Department of Chemistry, Sapienza University of Rome (The optimization follows a previous EU project - PHOTOLIFE LIFE13 ENV/IT/001033).
- 2018-2019: STAFF MEMBER - "Recycling of primary LIthium BATtery by mechanical and hydrometallurgical operations" Life LiBat-LIFE16 ENV/IT/000389, Department of Chemistry, Sapienza University of Rome.
- 2019: STAFF MEMBER - "Electrocatalytic reduction of CO_2 through nanostructured electrodes" RECENT - European KETs program co- funded by the Lazio Region (CUP: F81B18000450007), Department of Chemistry, Sapienza University of Rome
- 2016 - 2020: PhD course (main topic) - "Titanium Dioxide/Cuprous Oxide based electrodes through electrochemical methods for photocatalytic applications"

2008 – 2008 – Roma, Italy

Collaboration Scholarship

I authorize the processing of personal data for publication in accordance with EU Regulation no. 2016/679 and of the Italian Legislative Decree 30 June 2003, n. 196 "Code regarding the protection of personal data".

Department of Chemistry - Sapienza University of Rome
Laboratory of Analytical Chemistry

2009 – 2010 – Roma, Italy

Internship
Department of Chemistry - Sapienza University of Rome
Laboratory of Electrochemistry

EDUCATION AND TRAINING

14/12/2010

Bachelor of Science - Industrial Chemistry
Sapienza University ofRome
Innovative ion conductive membranes: synthesis and characterization

11/05/2016

Master of Science - Industrial Chemistry
Sapienza University ofRome
Cobalt electrodeposition in anodized aluminum oxide template

01/11/2016 – 14/02/2020

Ph.D - Chemical Engineering
Sapienza University ofRome
Nanosized catalysts through electrochemical methods: Synthesis, characterization and application

PUBLICATIONS

Electrodeposition of cobalt nanowires into alumina templates generated by one-step anodization

2018 https://doi.org/10.1016/j.electacta.2017.11.035
Electrochimica Acta
Articolo su rivista

Electrochemical synthesis of nanowire anodes from spent lithium ion batteries.

2019 https://doi.org/10.1016/j.electacta.2019.07.024
Electrochimica Acta
Articolo su rivista

Ti/TiO2/Cu2O Based Electrodes as Photocatalysts in PEC Cells

2019 https://doi.org/10.3303/CET1973013
Chemical Engineering Transactions Articolo su rivista

Electrodeposition of cobalt nanoparticles: An analysis of the mechanisms behind the deviation from three-dimensional diffusion-control

2019 https://doi.org/10.1016/j.jelechem.2019.113413 Journal of Electroanalytical Chemistry
Articolo su rivista

Optimizing the structure of Ni–Ni(OH)2/NiO core-shell nanowire electrodes for application in pseudocapacitors: The influence of metallic core, Ni(OH)2/NiO ratio and nanowire length

2020 10.1016/j.jallcom.2020.157718
Journal of Alloys and Compounds
Articolo surivista

Valorization of polymeric fractions and metals from end of life photovoltaic panels

2020 https://doi.org/10.3390/en13246690 Waste Management
Articolo su rivista (Under review/Pending editor decision)

Development and techno-economic analysis of an advanced recycling process for photovoltaic panels enabling polymer separation and recovery of Ag and Si

2020
Energies
Articolo su rivista (Accepted manuscript)

NANOSTRUCTURED TIO2-BASED HYDROGEN EVOLUTION REACTION (HER) ELECTROCATALYSTS: A PRELIMINARY FEASIBILITY STUDY IN ELECTRODIALYTIC REMEDIATION WITH HYDROGEN RECOVERY

2021
Capitolo di libro in:

"Electrokinetic Remediation for Environmental Security and Sustainability" - Edito da A. B. Ribeiro and M. N. V. Prasad - 2021 © John Wiley & SonsLtd.

Two electrodeposition strategies for the morphology-controlled synthesis of cobalt nanostructures

2018 https://doi.org/10.1063/1.5047759 AIP Conference Proceedings
Atto di convegno in volume

Ti/TiO2/Cu2O electrodes for photocatalytic applications: Synthesis and characterization.

2019 https://doi.org/10.1063/1.5123566

AIP Conference Proceedings Attodi convegnoinvolume

Electrochemical synthesis of nanowires electrodes and their application in energy storage devices

2019 https://doi.org/10.1063/1.5123573 AIP Conference Proceedings
Atto di convegno in volume

TiO2 Nanotubes in Lithium-ion Batteries

2020 https://doi.org/10.1063/5.0023681 AIP Conference Proceedings
Atto di convegno in volume

Production of Nanostructured Electrodes from Spent Lithium Ion Batteries and their Application in New Energy Storage Devices

2020 https://doi.org/10.1063/5.0023663 AIP Conference Proceedings
Atto di convegno in volume

CONFERENCES ANDSEMINARS

26/09/2017 – 29/09/2017 > – Roma

NanoInnovation 2017, Conference & Exhibition

Presentazione orale

14/04/2019 – 17/04/2019 > – Napoli

3rd International Conference on NANOTECHNOLOGY BASED INNOVATIVE APPLICATIONS FOR THE ENVIRONMENT

Presentazione orale

25/06/2019 – 26/06/2019 > – Roma

VIII Convegno Giovani Ricercatori. Dipartimento di Chimica - Sapienza Università di Roma

Presentazione orale

30/06/2019 – 03/07/2019 > – Palermo

GRICU - Il contributo dell'ingegneria chimica italiana alla sostenibilità globale

Presentazione orale

21/07/2019 – 26/07/2019 > – Sarteano (SI)

Making business with green chemistry and sustainable energy

Presentazione orale; Presentazione poster