DEEP PURPLE

CONVERSION OF DILUTED MIXED URBAN BIO-WASTES INTO SUSTAINABLE MATERIALS AND PRODUCTS IN FLEXIBLE PURPLE PHOTOBIOREFINERIES

JOB OFFER

Link to application:
https://www.urjc.es/i-d-i/convocatorias-investigacion/4608-convocatorias-con-cargo-a-proyectos
Ref: M1994-1618

Horizon 2020 European Union Funding for Research & Innovation

Bio·based Industries Consortium

BBI JU

This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon2020 research and innovation programme under grant agreement No.: 837998

WORK DESCRIPTION	
Hosting researchers JUAN ANTONIO MELERO HERNÁNDEZ FERNANDO MARTÍNEZ CASTILLEJO DANIEL PUYOL SANTOS RAÚL MOLINA GIL	Research group CHEMICAL AND ENVIRONMENTAL ENGINEERING
Department CHEMICAL AND ENVIRONMENTAL TECHNOLOGY	
Keywords PURPLE PHOTOTROPHIC BACTERIA, BIOECONOMY, BIOREFINERY, PHA, FERTILIZERS, METABOLISM, PILOT PLANT OPERATION, BIOMASS DOWNSTREAM	

Summary:
The University Rey Juan Carlos offers a Research Assistant job for working under the frame of the European Project DEEP PURPLE (GA No.: 837998). The job has the following RESPONSIBILITIES:

- To operate and maintain a pilot-scale bio-refinery consisting on:
    1. A pair of 0.5 m^3 photo-bioreactors, where purple phototrophic bacteria will evolve
    2. Pumping units for inlet, outlet and recirculation of the plant
    3. A pair of settling units
    4. A microwave volumetric heating unit for biomass pasteurization
    5. A decanter for biomass dewatering
    6. A sludge infrared drier
- To analyse all the macroscopic parameters for the operation of the pilot-plant, including: COD, VSS/TSS, N and P forms, among others
- To analyse the biomass for agronomic characteristics and PHA content and characterization
- To analyse the pathogens reduction through standard methodologies
- To write scientific documents and preliminary reports

Offer:

- A one-year contract.
- Competitive salary.
- Working in a high-level scientific-technical environment, with an emerging technology where the URJC is a pioneer in the EU.

Requirements:

- MS on chemical engineering, environmental engineering, environmental biotechnology, wastewater treatment or similar
- Experience on pilot-plan operation
- Experience on biological wastewater treatment
- Availability to travel locally (surroundings of Madrid)
- To be in good fit to operate large and heavy equipment
- Proficiency in English
- Immediate incorporation.

Valuable:

- Knowledge on agronomy and fertilizers properties
- Open mind
- Proactivity
- Team worker
- Problem-solving attitude

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