UNIVERSITAT ROVIRA i VIRGILI
Fundació URV

HUMAN RESOURCES – JOB POSITION

WORKPLACE:

Research Associate

NAME OF THE PROJECT:

Easy direct air capture and low-temperature regeneration of CO_2 using amine free Ionic Liquid sorbents (EASIL)

RESEARCH GROUP LINE:

We are looking for a candidate to work in an exciting project related to Direct Air Capture, in the framework of a collaboration with a major industrial partner. The candidate will work in the research area of CO_2 capture, in an industrial project carried out in collaboration between two research groups (MEMTEC and SUSCAPE) at the Chemical Engineering Department of URV.

JOB POSITION DESCRIPTION:

The candidate will perform the following tasks:

1. Synthesis of non-volatile, amine-free CO_2 sorbent materials, chiefly based on ionic liquids or similar substances.
2. Experimental and theoretical (using modelling tools) physico-chemical characterisation of the ionic liquid sorbents, including viscosity, density, thermal behaviour and phase behaviour.
3. Preparation and performance of laboratory direct air capture experiments, including quantification of CO_2 solubility and assessment of the capture mechanism.
4. Preparation and performance of regeneration experiments to optimise cyclic capture-release operation conditions.
5. Design of a prototype system for direct atmospheric air capture.

PROFILE OF THE CANDIDATES:

The candidate must have a solid background related to Chemistry, Chemical Engineering or related disciplines and must hold (or shortly expect to obtain) a PhD in Chemistry or Chemical Engineering.

REQUIRED SKILLS

- Experience in synthetic organic and/or inorganic Chemistry.
- Experience in the handling of technical gases and pressure setups.
- Knowledge and proven experience with separation technologies.
- Knowledge on Thermodynamics
- Excellent English level (oral and written).

ADDITIONAL SKILLS

- Experience in the use of molecular modelling tools and software (equations of state, molecular simulation, COSMO, etc.)
- Programming skills
- Experience in process simulation
- Experience in Sustainability evaluation (Life Cycle Analysis or similar tools)
- Open personality and good communication and networking skills
- Motivation and capacity to work in an autonomous manner

WORKING CONDITIONS

- Full time position
- Work place /Lab location: Department of Chemical Engineering – Lab 212 and 312
- Employment Contract: Indefinite scientific-technical activities (art. 23 bis of the Science Law). Category: GROUP 1
- Initial duration: 18 months
- Gross salary: 26.805,60€ year
- Starting date (aprox.): October 2022

SELECTION PROCEDURE:

- Selection of CVs: Identification of suitable and unsuitable CVs according to required skills. Applicants who do not meet the requirements indicated will not proceed to the next phase
- CV Evaluation (5 points): Threshold (3/5)
  - Academic formation and background (2 points)
  - Experience (scientific papers published, participation in research projects and similar research items) (3 points)
- Personal interview (5 points)

In the event of a tie between people of different gender, the person of the least represented gender in the work group will be hired.

SELECTION COMITEE:

- President: Alberto Puga, (Tenured Researcher and Lecturer)
- Member 1: Fèlix Llovell, (Associate Professor)

SUBSTITUTES:

- Ricard Garcia, (Associate Professor)
- Marta Giamberini, (Associate Professor)

With the approval of:

- Lourdes Jane (Director CTTI)

CANDIDATURES

Send your CV through the FURV website **(https://www.fundacio.urv.cat/ca/fundacio/borsa-treball/)**

DEADLINE FOR RECEIPT OF CV 15/09/2022

COMUNICATIONS

FURV will publish on its website the list of admitted and excluded applicants, as well as the final report with the scores obtained by them.