



## ESR 2 | Ceramic-based structured materials for enzyme immobilization

### ROLES AND RESPONSIBILITIES

Part of your PhD research (9 months) will be carried out at Graz University of Technology (Austria) under the supervision of Prof. Bernd Nidetzky. 9 months of secondments at the Department of Chemical Engineering (Complutense University of Madrid, Spain) supervised by Dr. Juan M. Bolivar are planned. The half part of your PhD work (18 months) will be at the company AENEAM Advanced Membrane Technologies S.L. (Spain) under the supervision of Dr. Jonas Gorauskis. The H2020 Marie Skłodowska-Curie Actions (MSCA) – Innovative Training Network (ITN) project starts in January 2020 (M1). PhD project is funded for three years and the date of recruitment, start of the PhD project, is planned for July 2020 (M7) latest on December 2020 (M12).

Your PhD degree will be awarded from School of Chemical Sciences at Complutense University of Madrid based on successful completion of the research work. You will also be required to participate in the training events and workshops organized by the ITN-European Industrial Doctorates (EID) program. As a Marie Skłodowska-Curie Actions (MSCA) fellow, you are also expected to contribute your time in the dissemination of your PhD project's result through public engagement and other scientific platforms.

### The PhD research will focus on:

- (i) Study of methods of enzyme immobilization of planar surfaces of ceramic materials,
- (ii) Design of ordered porous ceramic structures to optimize enzyme-immobilized catalysts,
- (iii) Development of suitable ceramic materials for different reactor configurations: stirred tanks, rotating bed and flow reactors,
- (iv) Optimization of biotransformations.

Recruiting Institution: AENEAM Advanced Membrane Technologies S.L. (Spain)

Address applications to: Dr. Jonas Gorauskis (jonasg@aeneam.com)

### REQUIREMENTS

- An MSc degree in chemical or biochemical engineering, materials chemistry, biotechnology or a related field,
- Eligible as a graduate student at Complutense University of Madrid, Spain,
- At the time of recruitment, the applicant must not have resided (or carried out his/her main activity e.g. work, studies, etc.) in Spain, for more than 12 months in the last three years
- immediately prior to the reference recruitment date,
- Knowledge on enzyme immobilization and material surfaces functionalization.
- Knowledge on techniques of biocatalyst characterization and bioprocess design
- Interpersonal skills conducive to team work and group research efforts
- Creativity, high motivation and conceptual thinking.
- An integrative and cooperative personality with excellent communication and social skills.
- Fluency in English – written and oral.

### APPLICATION PROCEDURE

To apply for the position, kindly provide:

- (i) A letter of motivation including a one-page statement of your research interests, relevant skills and experience;
- (ii) A CV including publication list; and
- (iii) Names and contact details of three referees willing to write confidential letters of recommendation.

Applications of women and disabled persons are particularly welcome.

All materials should be attached as a single PDF file (max. size 5MB). The PDF file name should include ESR2, your last name and first name (using "ESR2\_surname\_firstname.pdf").

### DEADLINE

The closing date for all applications is 01<sup>st</sup> of March 2020 or as soon as suitable candidates have been identified.



Innovative Training Network – European Industrial Doctorates

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