PhD grant in heterogeneous catalysis for biomass valorization

Within the context of a collaborative project involving several Belgian institutions funded by the EOS scheme, we are seeking a candidate to carry out PhD studies at UCLouvain in Louvain-la-Neuve (Belgium). The work will involve solid acid catalysts synthesis and characterization, followed by catalytic testing in key steps connected to biomass valorization involving cellulose, HMF and sugar molecules. The goal will be to unravel structure-activity relationships and in particular to pinpoint the key role of Lewis and Brönsted acidity in these processes. Well-defined porous metal phosphonates synthesized and characterized at our partner Universities (UAntwerp, UHasselt, UNamur, KULeuven and VUB) will be benchmarked against more classical formulations based i.e. on carbonaceous solids.

Skills/Qualifications

A Master's Degree in Chemistry or Chemical Engineering is required, with minimum mark of 14/20 (or equivalent) at least for one year of study.

Prior experience with solid materials synthesis and characterization and/or heterogeneous catalysts testing would be a major asset.

Specific Requirements

- Ability to work within a collaborative network
- Very good oral and written communication skills in English
- Speaking French is also an asset

How to apply?

Applications should be sent by email to Prof. Sophie Hermans (sophie.hermans@uclouvain.be) and include the following documents:

- A detailed Curriculum Vitae including academic background, details of courses taken and grades of each year of study;
- A (self)-assessment of English language level;
- A covering letter including the applicant's motivation;
- A list of at least two referees that could be contacted (recommendation letters should not be included in the email but sent separately by the referees).

Start date: as soon as possible

Prof. Sophie Hermans, IMCN Institute, Université catholique de Louvain, Louvain-la-Neuve, Belgium

https://uclouvain.be/en/research-institutes/imcn/most/sophie-hermans.html