

Director
of Institute of Environmental Technology
VSB – Technical University of Ostrava
announces a selection procedure for a post of
Junior researcher I EL (M)
in Research Team Preparation of Materials and Waste Recovery
for project **REFRESH - Research Excellence For REgion Sustainability and High-tech Industries (CZ.10.03.01/00/22_003/0000048)**, research program 5 –
Research on environmental and health aspects in the field of energy

The position is suitable for both women and men.

<https://ceet.vsb.cz/iet>

Required expertise:

The Postdoctoral Research Associate in Environmental and Material Engineering will join the Research Team Preparation of Materials and Waste Recovery. The candidate is expected to be involved in the research of materials (heterogeneous catalysts, sorbents) applied subsequently in technologies such as catalytic oxidation/combustion or sorption of volatile organic compounds or other compounds from waste gas emissions.

Activity description:

- conducting research activities to develop novel materials for their investigation in catalytic oxidation/combustion or sorption of volatile organic compounds (e.g. chlorinated VOCs, aromatic hydrocarbons) or other gaseous emissions (CO₂, H₂S etc.) from waste gas emissions,
- design and preparation of heterogeneous catalysts and sorbents using besides standard chemical approaches (sol-gel, precipitation etc.), also conventional and microwave pyrolysis/co-pyrolysis of biomass and/or supercritical fluid (CO₂) processing,
- design, development, implementation, analysis, and testing of prepared materials in mentioned technologies at laboratory and pilot scale,
- material characterization and data interpretation (physisorption, TPR and TPD techniques, chemisorption, XRF, XPS, XRD, TGA, AAS, FTIR for solids as well as gaseous emissions, Raman spectroscopy etc.)
- independent conducting of experiments,
- evaluating and analyzing experimental data,
- writing manuscripts for peer-reviewed publications.
- carrying out laboratory and (semi)operational research and development in cooperation and under the guidance of excellent researchers and senior researchers,
- continuous improvement of one's qualifications,
- participating in contacts with other partner workplaces,
- active publishing activity in high quality peer-reviewed,
- independent solving of complex scientific research tasks,
- possible participation in the preparation of projects from national and international sources.

Full time equivalent: 1,0
Type of job contract: fixed-term employment contract with the possibility of extension
Expected start of employment: from 1.6. 2024 or as agreed

We require:

- Ph.D. or equivalent doctoral degree in Environmental Engineering, Chemical Engineering, Material Engineering, Organic Technology and Heterogeneous Catalysis or other relevant fields,
- experience of independent scientific work in the field of material preparation and waste gas emissions treatment demonstrated by published articles skills are required,
- proficient and comprehensive knowledge in the fields of specialization,
- adequate understanding of basic principles and practices in Chemical/Environmental Engineering and Material Engineering,
- strong verbal and written communication in English, problem-solving, and critical thinking skills,
- ability to maintain quality and safety standards,
- ability to work in collaborative teams,
- ability to solve challenging research tasks.

We offer:

- work in a promising organization,
- salary evaluation according to the candidate's experience,
- modern laboratory and classroom facilities,
- opportunity to participate in excellent research,
- possibility of further education,
- 6 weeks of holidays,
- flexible working hours,
- university kindergarten,
- company catering in the canteen,
- MultiSport card,
- other employee benefits according to the employer's offer.

Your personal data will be processed to the extent necessary for the implementation of the selection procedure in accordance with EU Regulation 2016/679.

<https://www.vsb.cz/export/sites/vsb/en/.content/files/Informace-pro-uchazece-o-zamestnani-AJ.pdf>

E-mail the curriculum vitae focused on the course of professional practice, copies of documents on the acquired qualification, an overview of publishing activities and an overview of solved research projects to:

lucie.michaliskova@vsb.cz

To date: 8.5. 2024

In the subject of the email, please state "Junior researcher I EL (M) in Research Team Preparation of Materials and Waste Recovery".



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