

DC 7 | Novel biocatalytic methodology for formylation of aromatics

ORGANISATION

University of Graz (UNI GRAZ), founded in 1585, constitutes one of the largest Austrian research institutions. Numerous outstanding scientists, among them six Nobel price laureates taught and carried out their research at UNI GRAZ. Today, about 32,000 students and 4,200 employees are active at UNI GRAZ; hence, UNI GRAZ contributes significantly to the economic and social life of Graz. The University is highly recognized for its intense cooperation with national and international partners, and its close contacts to industry. UNI GRAZ offers tailor-made training services to our researchers, as well as different internship packages (Graduate Research Scholarship; Pre-doctorate Research Scholarship, etc.). In particular, the strong involvement of UNI GRAZ in MCSA fellowships (both IFs and ITNs) in the previous EU-framework programmes deserves to be highlighted.

ROLES AND RESPONSIBILITIES

The main part of your PhD research (3 years in total) will be carried out at **the University of Graz** (UNI GRAZ, Austria) under the supervision of **Prof. Dr. Wolfgang Kroutil** at the Institute of Chemistry. Within these three years, one academic research stays (3 months) will take place at the **University of Gottingen** (UGOE, Germany) under the supervision of **Prof. Prof. Kai Tittmann**. Additionally, an industrial secondment at the company **BASF** (Ludwigshafen, Germany) is foreseen. The date of recruitment and start of the PhD project is planned for May 2023 and latest in December 2023. Your **PhD degree** will be awarded based on successful completion of the research work from **University of Graz**. You will also be required to participate in the **training events and workshops** organized by the DN program. As a 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) Interdisciplinary project on biocatalysis, organic chemistry, enzymology
- (ii) Developing a biocatalytic method for C-C bond formation, in particular the formylation of aromatics
- (iii) Investigation of the scope of substrates, e.g. source of formyl, types of aromatics
- (iv) Combining formylation or also acylation with cascade reactions
- (v) structural and mechanistic investigations (academic secondment)
- (vi) Redesigning the enzyme to reach improved conversion or improved stability
- (vii) Evaluation of enzymatic reaction in an industrial setting (industrial secondment).

Primary supervisor: Dr. Wolfgang Kroutil (Wolfgang.Kroutil@uni-graz.at, <http://biocatalysis.uni-graz.at/>)

Recruiting institution: University of Graz (Austria)

QUALIFICATIONS

- An outstanding M.Sc. degree in Organic Chemistry, Biotechnology, Biochemistry, or related field
- Eligible as a graduate student at University of Graz (Austria),
- Research experience in organic chemistry, biotechnology, analytical methods (HPLC, GC, MS, NMR etc.), enzymes
- Ability to work in an international team,
- Inter- and multidisciplinary thinking,
- High motivation,
- An integrative and cooperative personality with excellent communication and social skills,
- Fluency in English – written and oral.

CONDITIONS OF EMPLOYMENT

We offer you

- to be part of an enthusiastic team dedicated to push the frontiers forward in biocatalysis
- a salary of € 3.058,60 gross per month (calculated for 2022, there are annual increases following an index), which corresponds to 2.068,79 net, paid 14 times per year; health insurance is paid by the University as well as social security.
- A PhD training program is part of the agreement and the successful candidate will be enrolled in the Doctoral School of Chemistry.

The 1.0 FTE appointment is temporary for a specified period of three years. The preferred starting date is between May 1st and July 1st 2023.

APPLICATION PROCEDURE

To apply for the position, kindly provide:

- (i) A letter of motivation including a statement of your research interests, relevant skills and experience and an explanation for the choice of position(s);
- (ii) A CV including publication list (if applicable);
- (iii) Names and contact details of two to three referees willing to write confidential letters of recommendation;
- (iv) Copies of relevant diplomas including explanation of international grades.

Please upload applications only according to instructions at www.biodeccodinng.eu.

Address applications to: Prof. Wolfgang Kroutil

Diversity among students and staff members enriches academic debate and contributes to the quality of our teaching and research. We therefore invite applicants from underrepresented groups in particular to apply. Our selection procedure follows the guidelines of the Recruitment code (NVP), <https://www.nvp-hrnetwerk.nl/sollicitatiecode/> and European Commission's European Code of Conduct for recruitment of researchers, <https://euraxess.ec.europa.eu/jobs/charter/code>.

APPLICATION DEADLINE

You may apply until 10th of January 11:59pm / before 11th of January 2023 local time (CET) for this position by means of the online application form (click on "Apply" below on the advertisement on the BiodeCCodiNNg website).

MARIE SKŁODOWSKA-CURIE ACTIONS
Doctoral Networks (DN)



**Funded by
the European Union**

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.