



## Open 2 post-doctoral positions in the ERC StG 2018 project!



European Research Council

### Dydio Lab/ Complex Systems in Synthesis & Catalysis

Institute of Science and Supramolecular Engineering (ISIS) University of Strasbourg & CNRS

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**Objective:** We seek to hire two outstanding researchers at the post-doctoral level to join our Laboratory at the Institute of Science and Supramolecular Engineering, University of Strasbourg. The successful candidates will be involved in the realization of the research project funded by the European Research Council ERC StG 2018.

**Research overview:** The overarching goal of the program of our group is the sustainable advancement of organic chemistry by targeting more efficient syntheses of chemicals based on cooperative catalytic reactions and complex systems chemistry; and by the advancement of catalysis based on detailed mechanistic understanding of these processes at the molecular level. In our research, we directly focus on chemical transformations of practical value, for which there are no satisfactory alternatives, or the existing methods remain cumbersome and wasteful, and hence unsustainable. Overall, three intertwined and complementary lines of research can be distinguished in the program, that is, (1) multicatalysis via embedding cooperative reactions into artificial metabolic-like systems, (2) mechanistically driven discovery of new valuable catalytic transformations, and (3) addressing the limitations of known key catalytic processes based on elucidating their mechanistic features. Each line can be exemplified by our recent publications:

1. Lichosyt, D.; Zhang, Y.; Hurej, K.; Dydio, P. [\*Dual-Catalytic Transition Metal Systems for Functionalization of Unreactive Sites of Molecules\*](#). *Nature Catal.* **2019**, *2*, 114.
2. Veth, L.; Grab, H.; Martinez, S.; Antheaume, C.; Dydio, P. [\*Transfer C–H borylation of alkenes under Rh\(I\) catalysis: Insight into the synthetic capacity, mechanism, and selectivity control\*](#). *Chem Catal.* **2022**, *2*, 762.
3. Zhang, Y.; Torker, S.; Sigrist, M.; Bregovic, N.; Dydio, P. [\*Binuclear Pd\(I\)-Pd\(I\) Catalysis Assisted by Iodide Ligands for Selective Hydroformylation of Alkenes and Alkynes\*](#). *J. Am. Chem. Soc.* **2020**, *142*, 18251. Sigrist, M.; Zhang, Y.; Antheaume, C.; Dydio, P. [\*Isospecific Hydroformylation of Propylene by Iodide-Assisted Palladium Catalysis\*](#). *Angew. Chemie Int. Ed.* **2022** (e202116406).

### We offer:

- The possibility to be involved in cutting-edge projects, using state-of-the-art equipment in a highly motivated research team
- A stimulating, diverse and international research environment & advanced training opportunities
- A competitive salary (2160-3060 EUR net/month, depending on the experience)

### We require:

- Ph.D. in chemistry
- strong background in homogenous catalysis, organic and inorganic chemistry
- experience of molecular modeling, programming, or machine learning will be considered as an advantage
- commitment and capacity for team work and critical thinking
- fluent written and verbal communication skills in English (French is not required)

**Deadline:** 1<sup>st</sup> August 2022 (after that date the applications will be considered only if the positions are not filled)

**Starting date:** any time (available from now)

Duration of contract: 1 year with the possibility of extension

Applications written in English should be sent to [dydio@unistra.fr](mailto:dydio@unistra.fr), and should include **(combined as one pdf file)**:

(1) cover letter

(2) CV (including your scientific skills, your research experience and publications)

(3) a 3-to-4-page summary of your PhD thesis + a summary of your other research experiences (when relevant)

(4) contact information for at least 2 referees (Recommendation letters should be sent directly to [dydio@unistra.fr](mailto:dydio@unistra.fr))