

Mechanochemical organic synthesis

Summary

Solid-state reactions using mechanochemical activation methods have the potential to replace current technologies by solvent-free atom-efficient strategies. We are looking for a motivated PhD student willing to contribute to the development of new mechanochemical synthetic methods with goal to reach complex molecular structures with minimal number of synthetic steps, though catalysis and templated synthesis in solid state. (Kaabel & Aav, et al. Angew. Chem. Int. Ed. 2019, 58, 6230-6234).

Research field:	Chemistry and biotechnology
Supervisors:	Prof. Dr. Riina Aav Dr. Dzmitry Kananovich
Availability:	This position is available.
Offered by:	School of Science Department of Chemistry and Biotechnology
Application deadline:	Applications are accepted between June 01, 2020 00:00 and July 03, 2020 23:59 (Europe/Zurich)

Description

Experimental work will be conducted in chemistry research lab and access to NMR, HPLC, MS, IR, UV, FS, CD, VCD, single crystal XRD analysis is available in the group. The PhD student will be supported by Department of Chemistry and Biotechnology through PRG399.

Responsibilities and tasks:

- Development of new synthetic methods and synthesis of complex molecules for supramolecular applications.
- Supervision of undergraduate students in research lab.

Qualifications:

- Master degree or equivalent in chemistry
- Strong knowledge of organic synthesis (essential) and experience with the analysis of organic compounds (desired).



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