

PhD student for a project on amino acid synthesis controlled by chiral templates (1,0 fte)

Faculty of Science, Radboud University, Nijmegen, The Netherlands

Maximum Salary: €2,612 gross/month

Vacancy number: 62.70.10

Closing date: 14 November 2010

Job description

The goal of this project is to find possible routes towards the formation of enantio-enriched amino acids and small peptides under space conditions. Meteorites may contain amino acids and other organic small molecules and therefore seeding from space could have been a factor in the rise of life on Earth. Some of the material on meteorites shows an enrichment in one of the enantiomers, but it is not known how this occurred. We will investigate the synthesis of alpha-amino acids in meteoric environments and the possible mechanisms for chiral symmetry breaking and amplification. This four-year PhD project will be carried out in the Solid State Chemistry and Synthetic Organic Chemistry groups at the Institute for Molecules and Materials, in collaboration with Leiden University as part of a large NWO-funded project on Astrochemistry (see www.nwo.nl/astrochemistry).

Requirements

You must have an MSc degree in Chemistry and should be interested in synthetic organic chemistry and the physical chemistry of crystal growth. Good experimental skills are required, but previous experience with crystal growth is not necessary. As all research within the IMM involves interaction with various people, good social skills are essential, as well as a good command of spoken and written English. You should be willing to finish your PhD in four years.

Organization

The IMM is an interdisciplinary research institute at the Faculty of Science. The aim of the IMM is to conduct research and train undergraduate and graduate students in the field of functional molecular structures and materials. The goal of the Solid State Chemistry group is to obtain a fundamental understanding of the processes that occur during crystal growth. A strong interaction exists between theoretical, computational and experimental methods and a wide range of systems and problems is studied. The Synthetic Organic Chemistry group is developing new methodology for the synthesis of biologically relevant small molecules. The group focuses on enantioselective conversions and on miniaturization.

Website: <http://www.vsc.science.ru.nl>

Conditions of employment

Employment: 1,0 fte

Maximum salary per month, based on a fulltime employment: €2,612 gross/month

The starting salary is €2,042 per month and will increase to €2,612 per month in the fourth year. PhD scale.

Duration of the contract: 4 years.

Additional conditions of employment

You will be appointed as a PhD student for four years. Your performance will be evaluated after 18 months. If the evaluation is positive, the contract will be extended by 2.5 years.

Additional Information

Prof. Elias Vlieg

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Prof. Floris Rutjes

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E-mail: f.rutjes@science.ru.nl

Application

You can apply for the job (mention the vacancy number 62.70.10) **before 14 November 2010** by sending your application -preferably by email- to:

RU Nijmegen, FNWI, P&O, mrs. A. Schroder

P.O. Box 9010, 6500 GL Nijmegen, NL

Telephone: +31 24 3652764

E-mail: pz@science.ru.nl