

Location of Appointment	Göteborg (Sweden)
Team Leader (contact person)	Professor Gunnar Nyman
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Category of Position	Experienced Researcher
Duration of Appointment (in months)	12
Starting Date	Autumn 2006
Requirements with respect to candidate :	PhD in chemical physics, physical chemistry, theoretical chemistry or corresponding; Interest in astrochemistry/astronomy would be an advantage.
Title of Research Project	Calculation of low temperature rate coefficients and cross sections for processes of astrophysical importance

Abstract of Research Project:

A one year postdoctoral position is available to work in the Theoretical Team at Göteborg University under the directions of Professor Gunnar Nyman.

The work involves theoretical treatment, quantum dynamical and statistical based theories, of reactive and inelastic processes in the gas phase, particularly at the low temperatures relevant to the conditions existing within interstellar clouds (down to around 10 K).

General Introduction :

Determination of rate coefficients for reactive and inelastic collisions of molecules in the gas-phase at low temperatures are essential for the construction of models to help us understand extreme astrophysical environments such as dense interstellar clouds. These rate coefficients are also of great fundamental interest, providing data for stringent comparisons with the latest experiments. The postdoctoral fellow would be expected to take a leading role in calculations of low temperature rate coefficients or cross sections for some nitrogen or carbon containing reaction of astrophysical interest.

Applications :

The position is available from the autumn 2006, but the starting date is flexible until February 1st 2007. Informal enquiries should be directed to Professor G. Nyman, enclosing a detailed CV (including grades obtained, publications, work experience etc) and if possible the names and contact details (including email) of two or more referees. Applicants from outside Europe will be considered with appointment subject to approval from Brussels. Female candidates are specifically encouraged to apply.