

Location of Appointment	Göttingen (Germany), Göteborg (Sweden), Oxford (UK)
Team Leader (contact person)	Prof. J. Troe
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Category of Position	Experienced Researcher
Duration of Appointment (in months)	36
Starting Date	ASAP 2005
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 three year postdoctoral position is available to work one year at each of the three Theoretical Teams at Göttingen, Göteborg and Oxford, under the directions of Professors Jürgen Troe, Gunnar Nyman and David C Clary. 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 a few nitrogen and carbon containing reactions of astrophysical interest.

Applications :

The position is available immediately but a start date up to October 1st 2005 is possible. Informal enquiries should be directed to Professor Dr. J. Troe in the first instance, 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. Qualified female candidates are specifically encouraged to apply.