

The University of Vienna (20 faculties and centres, 184 fields of study, approx. 10.400 members of staff, about 90.000 students) seeks to fill the position from 01.02.2023 of a

University Assistant (post doc) at the Department of Physical Chemistry

Reference number: 13611

General Description (research group)

The current research focus of the ultrafast and nonlinear spectroscopy group of Ellen Backus in the department of physical chemistry is on understanding the structure and dynamics of interfaces with a focus on water. Amongst others, the properties of water adjacent to hard and soft interfaces are relevant for applications in electrochemistry, folding of macromolecules, and catalysis. Besides our main research focus on water at interfaces, we are also interested in the structure, orientation and dynamics of molecules like surfactants, peptides, and organic acids. In order to study selectively interfacial molecules, we use the nonlinear optical technique sum frequency generation spectroscopy. In the recent years, the technique developed into phase, time, and multidimensional spectroscopy. We now extend our toolbox and research focus into bulk dynamics. Therefore, we are constructing a transient absorption setup to monitor electronic transitions by pumping the system from UV to infrared and detecting in the visible range.

Besides, a setup able to perform 2D-IR and transient IR experiments is currently build to study bulk reaction and relaxation dynamics by monitoring molecular vibrations. Using these state-of-the-art methods, the research group is devoted to understanding the molecular scale structure, relaxation dynamics, and reactivity of soft matter at interfaces and in bulk.

Duration of employment: 4 year/s

Extent of Employment: 40 hours/week

[Job grading in accordance with collective bargaining agreement:](#) §48 VwGr. B1 lit. b (postdoc) with relevant work experience determining the assignment to a particular salary grade.

Research fields:

	Main research field	Special research fields	Importance
Chemistry		Physical chemistry	SHOULD

Education:

	Educational institution	Educational level	Special subject	Importance
University		Chemistry	Biochemistry	SHOULD

Languages:

	Language	Language level	Importance
German		Good knowledge	SHOULD
English		Very good knowledge	MUST

Computer-Skills:

Type of computer skills	Specified computer skills	Importance
Basic Knowledge	MS Office	SHOULD

For more information and to apply - please visit [Moritz Schlick early-career Postdoc Programm](#).

The University pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity (<http://diversity.univie.ac.at/>). The University lays special emphasis on increasing the number of women in senior and in academic positions. Given equal qualifications, preference will be given to female applicants.