

DEPARTMENT OF NATURAL SCIENCES

Appointment description of a professor of physical chemistry

(The chair in chemistry, preferably physical chemistry, donated by Ernst and Majken Grönblom)

The Åbo Akademi University is a research university of high international standing and has a broad teaching responsibility in Finland. With its international research community and its close ties to the other Nordic countries Åbo Akademi University has a prominent and acknowledged position nationally as well as internationally within research and education. The university's education programs within natural sciences and technology have consistently ranked high in national and international evaluations.

Physical Chemistry (<https://www.abo.fi/student/mnffyskemi>) was founded as an independent subject at Åbo Akademi University in 1921. The research has always been closely connected to surface and colloid chemistry although today the research field spans a wide range of material sciences and nanomaterials as well as thermodynamics. Thus the existing assembly of equipment is focused on material sciences.

The laboratory possesses very advanced SAXS, TGA-MS, AFM and adsorption apparatus and a broad selection of traditional instruments and, via a share in the firm Top Analytica (www.topanalytica.com), ESCA, SIMS and MS apparatus. The laboratory also has access to NMR spectrometers. Physical Chemistry employs totally about 30 persons; the permanent staff consists of five teachers, a lab manager and an administrator. The annual turnover of the laboratory is about 2 million euros, and of this over 70 per cent is from external project financing. During the last 10 years Physical Chemistry has produced a total of 20 doctoral degrees in natural sciences and chemical engineering, plus 25 master's degrees in science and engineering. Physical Chemistry at Åbo Akademi University today coordinates the national Centre of Excellence FunMat (www.funmat.fi) and the Graduate School GSMR (www.gsmr.info).

1. The position

On the suggestion of the Faculty of Mathematics and Natural Sciences the board for Åbo Akademi University, at its meeting on December 8th 2009, decided that when the present professor retires the vacancy will be filled within the same field at the Department of Natural Sciences. The professor will be installed under a permanent contract of employment. At Åbo Akademi University individual salary setting applies. The salary is based on a demand level for teaching and research staff, which for a professor is in the interval of 8 to 11. Additionally there is an individual performance based part of the salary. To assist the parties (the reading clerk, the head of the university department and the department council) at all stages of the process of filling the vacancy the head of the department has appointed an advisory group.

2. The field of assignment

The field of teaching for the professorship in question is defined as physical chemistry. The professor is to pursue and lead scientific research, and deliver thereupon based highest education, follow the development of science, as well as interact with society at large and participate in national and international cooperation in his/her field.

3. Qualifications for a professorship

The following requirements apply to the applicants of the professorship: Solid scientific competence, pedagogical skills, ability to lead research and teaching activities, and ability to head research projects and raise external financing for them. In assessing the applicant's scientific competence his/her scientific research, ability to lead research work, textbooks of scientific value and other scientific merits and degrees are taken into account. Experience of work at an international university or research institute of high standing is considered an additional merit.

In the assessment of the teaching ability the following are noted: pedagogical education, practical experience acquired through teaching, ability to produce textbooks, other merits acquired through teaching and in skills tests proven teaching ability.

Language skills

The official language at Åbo Akademi University is Swedish. For teaching posts excellent command of Swedish in speech and writing as well as an ability to understand Finnish is required. In appointments to a post, persons who only after the deadline have proven the required language skills are also taken into account, provided that this does not prolong the process. The regulations on teachers' language skills at Åbo Akademi University are stated in § 78 of the University Law (558/2009) and in the Instructions on the knowledge of Swedish and Finnish required of teachers at Åbo Akademi University (approved by the board 25.2.2010).

Requirements applicable to a native Finnish citizen

For teaching and research posts at Åbo Akademi University excellent command of Swedish and an ability to understand Finnish is required. Such excellent command of Swedish has been acquired if the person has

- 1) attended a Swedish speaking school and has written the maternity test in Swedish when taking a university degree or
- 2) passed an examination in Swedish arranged by the language council of Åbo Akademi University or
- 3) obtained the grade excellent ability to use Swedish in speech and writing in the state administration language examination in accordance with the decree on assessing language skills in Finnish and Swedish within state administration (481/2003).

Language skills proven in a general language examination on level 6 has to be confirmed by a supplementary exam for the language council of Åbo Akademi University.

Requirements applicable to foreigners or non-native Finnish citizens

Åbo Akademi University decides about the level of command of Swedish and Finnish required of a foreigner or of non-native Finnish citizens.

A foreigner or Finnish citizen, who is not native, has to prove the level of command of Swedish that a successful performance of the post's official duties requires. The department council decides in cooperation with the language council whether or not the applicant possesses a good enough language command.

The department council can grant exemption from the requirement of knowledge of Finnish if it considers it unnecessary for a successful management of the post's official duties.

Applicants are presumed to have good knowledge of English

4. Application

Applications for the professorship are to be delivered in writing and may be submitted electronically. More information on the application time and the address where to send the application can be found in a separate advertisement. The application is to be addressed to the Rector of Åbo Akademi University. Attachments to the application are to be written in English. The following documents are to be attached to the application:

- 1) Curriculum vitae (CV), attested by two persons
- 2) A list of the publications and other achievements that the applicant wishes to refer to as proof of his/her competence and merits for the post
- 3) A maximum of 20 publications that the university will send to the experts
- 4) A report on the ability to lead research that includes a) documentation on the ability to head research projects and raise external financing for them, b) activity in research training, e.g., supervising doctoral theses and leading graduate schools and c) academic expert assignments

- 5) A report on pedagogical competence which can include, e.g., a) a pedagogic degree, b) practical experience of teaching, c) ability to produce teaching material such as textbooks, d) development of alternative teaching methods and e) pedagogical objectives.
- 6) A report on academic positions of trust, activity at different universities and research institutes, possible auditor assignments and such cooperation with the academic community, the society or companies that is not apparent from other enclosed documents.
- 7) A review on planned scientific activity and the applicant's view on the field's development.

5. Test lecture

After the experts have submitted their statements, those whom the advisory group considers most appropriate for the post will be offered an opportunity to give a test lecture. Separately or in connection with the possible test lecture there will be an interview with the advisory board.

6. Contact information and addresses

In order that the applicant be reached, for requesting additional information or for announcements during the process of appointment, the applicant must inform the university of how he/she can be reached and also give the address to which written documents can be sent.

7. The experts and their duties

The head of the university department will, after having heard the advisory group, appoint a minimum of two experts to give a written report on the applicants' merits. In selecting the experts the different scientific fields within the discipline that the applicants represent are to be taken into account, and also otherwise objectivity needs to be observed. Before the experts are appointed the applicants shall be given an opportunity to raise an objection against the intended experts. The grounds for lawful disqualification are stipulated in 28 § of the Administrative Procedure Act (434/2003).

The experts are allowed to discuss with each other and also to give a joint report. The report must be given, if no special conditions apply, within three months after the experts have been appointed. The experts are not allowed to take part in handling the case after having given their report.

The experts' task is to give written evaluations of the applicants. For the applicants that the expert considers the prime candidates he/she should also state reasons why they are particularly suitable for the post in question. The expert should also rank the prime applicants.

If the number of applicants is no more than three, an evaluation should be given of all of them. If there are more than three applicants, at least three of them should be evaluated. However, a thorough analysis is needed only of those applicants that the expert considers duly qualified.

8. Written account on appointment or expiration

When the experts have given their reports, the department council assesses the competence of the applicants whom the referees consider to be qualified for the professorship and gives a recommendation to the rector on appointment to the post or expiration of the matter.

A decision on competence and a recommendation on appointment can be made even if all the experts have not submitted a statement provided that

- the deadline, that the department council stipulated for giving the report, has expired.
- the statements of at least two experts have been received.
- refraining from further statements does not jeopardize objectivity when assessing the applicants.

Approved by the department council 17.5.2010