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Rules and Regulations of the doctoral program

Reactivity and Catalysis

at the University of Innsbruck

A Aims and general information

The aim of the planned special doctoral program is the excellent education of qualified students from within and outside Austria in recent and relevant research topics covering different aspects of reactivity in materials- and nanoscience. The joint forces of three faculties (Chemistry and Pharmacy, Geo- and Atmospheric Sciences and Mathematics, Informatics and Physics) and five institutes allow students to appreciate reactivity from different important perspectives, ranging from homogeneous and heterogeneous catalysis, reactivity of surfaces and interfaces over activation mechanisms of molecules and biomolecules, reactivity of metals, oxides, metal-oxides and intermetallic compounds to gas phase molecules. The input from several different scientific approaches will yield in a much more in-depth assessment of reactivity as compared to usual and conventional doctoral education, both from a theoretical and experimental point of view. Scientific exchange on all levels will be particularly promoted. In addition, the participants of the special doctoral program will benefit from an interdisciplinary access to national and international research groups and get into contact with potential employers from scientific and industrial partners.

The special doctoral program will be operated within the framework of the special research platform *Materials and Nanoscience*, inaugurated at the University of Innsbruck. Each scientific faculty member of the doctoral program shall at minimum introduce one doctoral student (but not more than two) at the same time. If, for some reason, such a student is temporarily not introduced, the respective faculty member will still be available for scientific guidance. The doctoral program shall be attended by at least 10 prospective students. The maximum number of participating students shall be limited to double the number of scientific faculty members.

B Scientific and educational program

Educational basis of the special doctoral program (hereinafter referred to as "DK") are the respective curricula of the doctoral programs of the faculties involved in conjunction with interdisciplinary guidance of at least one scientific faculty member as supervisor per PhD

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student. Scientific exchange will be ensured via *regular meetings* of both, supervisors and students, as well as additional summer and/or winter schools. Participation in the DK will be acknowledged by a certificate once all required courses have been successfully completed.

Since the regular scientific exchange forms one of the core elements of the outstanding education within the DK, a special *DK seminar* will be inaugurated on a quarterly basis, which the participating PhD students and the supervisors of the faculty shall attend. Two such seminars per term will take place, with talks of three PhD students each. Hence, each PhD student will have the opportunity to present his or her work once per year. It is planned to address a special amount of ECTS credit points for the participation of that particular DK seminar. Within this seminar, the PhD students will be given the opportunity to present and highlight their work and discuss it interdisciplinary.

The students will also be encouraged to attend *lectures*, *workshops and general talks* which are out of their subject area (e.g. GÖCH lectures or talks of the Geokolloquium).

As far as temporally and progressively possible, it is planned to organize special *summer or winter schools*, which feature a more general discussion approach, also including external speakers for an even broader development of not only interdisciplinary research skills but also scientific get-in-touch. Two such schools are scheduled for the initial run of the DK (each with a duration of presumably two days).

The scientific skills will be further developed by giving the students the opportunity to attend collaboration partners both at research institutions and industry, mostly via *short term scientific missions* within the existing scientific network of the individual faculty members. As such, the DK Reactivity and Catalysis commits itself to the cooperation with other research institutions and industry partners.

The achievements within the framework of the DK will be subject to input into the project data base and the documentation of research activities (Forschungsleistungsdokumentation) of the Leopold-Franzens-University of Innsbruck.

C Quality Criteria for the admission and resignation of students

Both, the admission and resignation of prospective students, will be based on a number of transparent criteria. To be admissible, the students must

• be of academic excellence and committed to science. Furthermore, he or she must show high communication skills and social competence as well ability to work in a team,

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- be enrolled in a respective PhD studies of one of the participating faculties and institutes,
- take part in an enrollment process to the DK, including formal written application and at least one recommendation letter (the former has to include a reasonable CV detailing the scientific achievements and a list of research area-related publications as well as oral and poster contributions),
- address the application via one of the supervisors to either the speaker or one of the deputy speakers of the DK.

Selection and final admission of the potential PhD students will be carried out by the faculty members of the DK via closed meetings following the criteria outlined above.

Resignation of a PhD student from the DK will be carried out due to at least one of the following events:

- personal decision;
- completion of the respective curricula of the enrolled PhD studies;
- deregistration of the PhD studies due to whatever reason.

D Organisational structure and responsibilities of the DK members

The organisational structure of the DK shall comprise the following bodies:

- Faculty
- Speaker and two Deputy Speakers
- General Assembly
- General Steering Committee
- PhD Committee
- Women's Representative

Members and Faculty

The *faculty* represents the scientific and educational head of the DK and consists of highly qualified researches from the respective research areas, including but not limited to reactivity and catalysis. The faculty shall consist of the 14 founding members / scientists, who have been united in the DK and are allowed to supervise PhD theses. Further incorporation of highly qualified scientists into the DK as future members from complementary research areas shall be possible, provided the following two criteria are met:

• informal application to the speaker of the DK;

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• contribution of at least one PhD student to the DK, who meets the criteria described above.

The faculty shall not deliberate and decide validly unless two-thirds (2/3) of its faculty members are present or represented (quorum; minimal number of members with voting power present at elections).

The faculty elects the *speaker* and *two deputy speakers* by a two-thirds majority. They have to be elected from the pool of faculty members of the DK and must be actively employed at the Leopold-Franzens-University of Innsbruck. The speaker is responsible for the administrative and financial tasks. He/She will be supported in these tasks by the secretary of the Institute of Physical Chemistry as well as the person partly in charge of the administrative tasks of the research platform Material and Nanoscience at the University of Innsbruck. Duties of the administrative staff include setup of meetings, setup of agendas, preparation of minutes and administration of financial tasks. The speaker will report on the progress and the results of a possible internal evaluation on a yearly basis.

The following decisions shall be taken by the faculty:

- the admittance of new faculty members,
- the election of a women's representative and
- proposals for the admission of prospective PhD students or their expulsion.

Each faculty member shall act as main supervisor for at least one PhD student of the DK and on request, shall serve as a co-supervisor for other students participating in the DK (i.e. they constitute the thesis committee). The faculty members shall attend faculty meetings (including DK seminars) as well as potential summer and winter schools.

General assembly, general steering committee and PhD committee

Apart from the faculty, a general assembly and steering committee will be put in place.

The *general assembly* consists of all faculty members and the PhD representatives. It serves as an assembly to decide the admission of new students, changes in the aims of the DK, supervision of the efficient progress of the DK, changes in the rules and regulations and termination of the DK.

The *general steering committee* (quorate by a two-thirds majority) is formed by the speaker, the two deputy speakers, one additional faculty member and one PhD representative. It is responsible for all matters of the DK program, including the approval of thesis committees, supervision and approval of the individual research programs of the PhD students, changes in the training program, implementation of measures arising from evaluations and the admission and expulsion of PhD students by request of the faculty, the approval of the election of the women's representative and serves as the link to implement suggestions from the PhD committee.

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The *PhD committee* consists of both, a speaker and a deputy speaker, elected from the respective PhD students. It serves all needs of the PhD students participating in the DK and also acts as the administrative and missing link to the general steering committee.

Resignation of faculty members of the DK is possible in the following cases:

- own request combined with immediate notification of the speaker of the DK and provided that the supervised PhD student is given the opportunity to continue and finish his or her work within the DK via transfer to another supervisor of the DK.
- exclusion due to severely violating ethical standards (e.g. violating good scientific practice, scientific fraud, neglecting duties as a supervisor, being permanently without a PhD student to supervise). The exclusion has to be decided by at least a two-thirds majority of the steering committee members (see below) within a reasonable period of time (within a few months) in consideration of the scientific progress of the DK, which shall not be impeded by an exclusion. The exclusion shall be communicated to the general assembly without undue delay.

E Regulations for voting processes

In general, decisions shall be put in place by the members of the faculty at meetings. Any decision may also be taken without a meeting if the speaker circulates to all members of the respective DK body a written document, which is then agreed by the defined majority of all members of the DK body. Such document shall include the deadline for responses.

All decisions concerning the DK are quorate processes, which means they require a two-thirds majority of the body members or substitutes present (quorum) and a respective two-thirds majority of votes cast. Transfer of votes to other members of the respective DK body is possible. All decisions with respect to specific curricula require the subsequent approval of the respective body of the University in order to be valid.

F Certification of participance

The participating PhD students of the DK will receive a formal certificate of participance issued by the speaker, which acknowledges the achievements during the DK period. If the DK is terminated, the enrolled students will still get the opportunity to receive a certification of participance provided that the majority of the DK work program has been already concluded and only the formal finish of the PhD thesis is still remaining.

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G Termination of the DK Reactivity and Catalysis

The DK will be officially terminated

- by decision of the faculty members;
- by prolonged shortfall of the minimum number of required PhD students;
- by two consecutive negative evaluations of the competent member of the rectorate of the University of Innsbruck; or
- by a decision of the rectorate.

H Gender-related work environment and women's representative

The DK commits itself to gender equality. Approved measures of gender mainstreaming are implemented, including but not limited to a gender-sensitive employment environment. As such, steps are taken to ensure compatibility of family and work. The faculty is also committed to promote women in science and will elect a female faculty member acting as the women's representative in all cases.

I General commitment

The established rules of the special doctoral program (DK) are compatible with those of the University of Innsbruck. Decisions are binding to all DK members.