

Guidelines for Cumulative Dissertations in the Faculty of Chemistry at the University of Stuttgart

In accordance with the resolutions of the General Doctoral Committee of April 10, 2019, April 16, 2021 and October 18, 2023.

Preamble

According to § 2, paragraph (6) of the doctoral degree regulations of the University of Stuttgart dated March 1, 2019, a dissertation can be prepared in a publication-based cumulative form if this is permitted by a directive of the Doctoral Committee in agreement with the faculty board and the supervisor agrees to the preparation of a publication-based dissertation. The Chemistry Doctoral Committee therefore specifies the following criteria:

§ 1 Publication criteria

- (1) At least three publications are required for a cumulative dissertation in chemistry. These must be original works, i.e., no data collection and no review articles. The publications must not contain any significant parts of the student's previous theses (i.e. Bachelor's or Master's theses).
- (2) The publications used for the cumulative dissertation must have been published in an internationally recognized peer-reviewed journal. Journals with only nominal peer review are excluded. Each of the publications mentioned in paragraph 1 must fulfill this criterion. As a rule, the journals should have an impact factor of at least 2.5. Justified exceptions are possible. They must be approved by the Select Doctoral Committee.
- (3) Publications that have been accepted for publication will be considered. A letter of acceptance must be submitted.
- (4) Additional publications are permitted in cumulative dissertations as long as at least three have been published or accepted for publication in accordance with para. 1.
- (5) For a publication to count towards a cumulative dissertation, the doctoral candidate must be the first author of this publication. Shared first authorship with up to a maximum of two first authors is permitted if the contribution of the respective first author could stand alone. The number of additional co-authors is unlimited.
- (6) The same results may not be used in multiple cumulative dissertations.

§ 2 Additional criteria

- (1) Writing a coherent and comprehensible thesis is part of the doctoral work for a cumulative dissertation. With a cumulative dissertation, confirmation must be submitted by the doctoral supervisor(s) that the doctoral candidate has written the first version of the publications listed in §1. Furthermore, a detailed description of the doctoral candidate's own contribution and a breakdown of the contributions of the others must be submitted for each publication taken into consideration in accordance with §1 para. 1.

- (2) Every publication-based dissertation must contain a detailed introduction to the topic, which presents the underlying theories and methods as well as the state of the art in its appropriate breadth. This corresponds to the theory and methods section of a classic dissertation and should, therefore, have a similar scope.
- (3) Every publication-based dissertation must include a discussion of usually 20-30 pages in which the publications are placed in an overall context. In this section of the dissertation, the significance of the results must be explained and placed in the context of current research in the field. This section contains figures and references. Every publication-based dissertation concludes with a summary (and possibly an outlook), as is also the case with non-publication-based dissertations.
- (4) Unpublished data / results can be part of the discussion (see point 3). Alternatively, they can be printed in the appendix. In any case, they must be marked as unpublished data / results.
- (5) The language of the publication-based dissertation must correspond to the language of the publications on which it is based.
- (6) Appendices to the publications ("Supplementary Information" etc.) must be printed in the work if they are necessary for understanding the work. In the case of extensive appendices, excerpts may be reproduced. For parts not directly necessary for the understanding of the work, reference may be made to online resources.
- (7) The structure of a publication-based dissertation must correspond to that of a non-publication-based dissertation with the exception of point (3) - the discussion replaces the "results and discussion section" of a non-publication-based dissertation. The relevant publications are part of the publication-based dissertation in their printed form and can be inserted after the discussion or in the appendix.

§ 3 Procedure

- (1) The Select Doctoral Committee of the Faculty of Chemistry must give its approval for every publication-based dissertation. The presence of the doctoral supervisor at the respective meeting of the Select Doctoral Committee at which the decision is made is not mandatory. The doctoral supervisor may be invited to the meeting, especially if it is suspected that the criteria are not met.
- (2) The Select Doctoral Committee decides on each case of a cumulative dissertation by a simple majority of its voting members. Cumulative dissertations must also be submitted electronically to the Office of the Dean eight days before the meeting so that they can be made available to the Select Doctoral Committee in a timely manner.