



**Implementing provisions for cumulative doctoral theses
pursuant to the section 8 subsection 2 of the Doctoral Examination Regulations of the Faculty
of Chemistry and Earth Sciences from 17 July 2018**

1. Doctoral theses may be prepared as monographs or as publication-based (“cumulative”) doctoral dissertations. If a doctoral candidate wishes to produce a cumulative doctoral thesis, the first supervisor needs to give her/his consent and confirm that the conditions below are met. In case of publications arising from collaborative projects, the doctoral candidate’s individual contribution must be documented and confirmed by the project partners. The Faculty Council will decide on the opening of the doctoral examination proceedings on a case-by-case basis. Doctoral candidates cannot claim the right to produce a cumulative doctoral thesis. If the Council rejects their request to open the proceedings based on a cumulative doctoral thesis, doctoral candidates may opt for a monographic dissertation in accordance with the Doctoral Examination Regulations.
2. The scientific publications that are part of a cumulative doctoral thesis must clearly relate to each other in terms of their coherence in content and timing (e.g. with regards to the time of admission as a doctoral candidate). This relationship must be clearly visible, e.g. through an overarching title and in the summary of the doctoral thesis.
3. A cumulative doctoral thesis must consist of at least three scholarly contributions (minimum requirement: “publication equivalence value”: 3.0; refer to no. 6 below). At least two of these must have been published or accepted for publication (total publication equivalence value: 2.0), and one additional manuscript submitted for publication (publication equivalence value: 1.0). The manuscripts must have been published in, accepted by, or submitted to internationally recognized publication outlets with an independent peer review system. Acceptance or submission of a manuscript must be documented by presenting a letter from the editor or other suitable proof.
4. Only peer-reviewed original scientific contributions (or review papers, see no. 6) may contribute to cumulative doctoral theses. Within the context of the present provisions, reports (e.g. research reports, technical reports, workshop reports), reviews, conference posters and similar contributions are not considered publications.
5. Publications that mainly contain results of previous final theses (e.g. Bachelor’s, *Diplom* or Master’s theses, or theses within state examination programmes) may not be used as part of a cumulative doctoral dissertation.
6. If the doctoral candidate is not the sole author of all publications, she/he must indicate her/his individual scientific contribution (please refer to the attached template). The following specific rules apply: The doctoral candidate must be the lead author of at least two publications. Doctoral candidates are considered lead authors if their individual contribution amounts to at least 50%. In case of publications with substantial contributions of multiple co-authors, doctoral candidate’s individual contribution must be at least 33% and greater than or equal to each co-author’s individual contribution. The aforementioned publications count with a publication equivalence value of 1.0. Publications to which a candidate contributed between 33% and 49% are weighted with a publication equivalence value of 0.75. Additional publications to which the candidate contributed more than 25% receive a publication equivalence value of 0.5. The latter value also applies to review



articles that provide novel insights into the thesis project's research area based on the contributions of other researchers. The cumulative doctoral thesis may also include additional co-authored manuscripts that have a clear connection to the thesis topic. In cases of interdisciplinary publications with several lead authors ("shared first authorship") from different disciplines, the Faculty Council may approve a full weighting (1.0) for each lead author upon request even if the candidate's contribution is less than 33%.

7. It is the doctoral candidate's sole responsibility to comply with the copyright regulations relevant for the re-use of the publications as part of a doctoral thesis (see attachment). The publisher's authorization to use or reproduce the publication must be obtained for each individual contribution.
8. The cumulative thesis must provide a comprehensive, overarching introduction, a discussion of results, and a concluding summary (at least 10,000 words in total). The introduction should present the thematic relationships between the published papers coherently. In addition, the concluding summary should relate the candidate's research topic and key results to the scholarly literature in the field. Introduction and summary must be the candidate's own new and original contributions. A cumulative doctoral thesis must consist of the following parts:
 - a title page containing the specification "cumulative doctoral thesis"
 - an overview of all manuscripts that form part of the doctoral thesis including, for each manuscript, the author's names, and the manuscript's title and status:
 - o published manuscripts: complete bibliographic reference
 - o accepted manuscripts: journal, date of acceptance
 - o submitted manuscripts: journal, date of submission, including a letter of confirmation from the publisher or editor
 - a table of content
 - if applicable: lists of acronyms, figures, and tables
 - an introduction
 - an overall summary in German and in English language (3-5 pages each)
 - a complete list of references used in the introduction, discussion, and in the concluding summary
 - the declaration on authorship and copyright (see attachment) along with a confirmation of the co-authors' and supervisors' consent
 - a declaration of originality
 - the publications. Text and illustrations of the manuscripts included in the thesis must be identical to the original publications. The manuscripts should be printed on A4 paper size irrespective of the journal's original paper format.
9. If the publications used in the thesis are manuscripts published in German and English (mixed cumulative dissertation), the additional text consisting of an introduction, discussion and concluding summary can be written in German or English. If all publications are written in one language (English or German), the text has to be written in this language.
10. Supplementary material / information for publication must be fully included in the doctoral thesis, if applicable also in electronic format.
11. It is the doctoral candidate's responsibility to comply with the present provisions and to provide complete and accurate information.



**Sample attachment to the Declaration on authorship
(to be included in the cumulative doctoral thesis document)**

Declaration on authorship and copyright in a cumulative doctoral thesis

Reprint permissions have been obtained for all manuscripts used as part of the doctoral thesis.

The co-authors of the manuscripts used in the present cumulative doctoral thesis have been informed about the use of the manuscripts and about the declared individual contributions; they have given their consent. *(It is recommended to seek the co-authors' consent to the use of the manuscripts and to individual authorship contributions at the time of manuscript submission).*

The declared individual contributions of the doctoral candidate and the other doctoral candidates participate as co-authors in the publications are listed in the attachment.

Name of doctoral candidate	Date	Place	Signature
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I give my consent to the submission of a cumulative doctoral thesis and confirm the correctness of the information provided above.

Name of first supervisor	Date	Place	Signature
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Name of second supervisor	Date	Place	Signature
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Sample attachment to the Declaration on authorship

Declaration on authorship and copyright in a cumulative doctoral thesis (Add additional pages and provide further explanations on reverse, if necessary)

If a publication has previously been used in another cumulative doctoral thesis, please specify the type and scope if its use.

Publication #1 (complete bibliographic reference):					
Involved in (Please tick the boxest hat apply.)					
	Autor #1:	Autor #2:	Autor #3:	Autor #4:	Autor #5:
Conceptual research design					
Plannung of research activities					
Data collection					
Data analyses and interpretation					
Manuscript writing					
Suggested publication equivalence value					

Publication #2 (complete bibliographic reference):					
Involved in (Please tick the boxest hat apply.)					
	Autor #1:	Autor #2:	Autor #3:	Autor #4:	Autor #5:
Conceptual research design					
Plannung of research activities					
Data collection					
Data analyses and interpretation					
Manuscript writing					
Suggested publication equivalence value					



Publication #3 (complete bibliographic reference):					
Involved in (Please tick the boxest hat apply.)					
	Autor #1:	Autor #2:	Autor #3:	Autor #4:	Autor #5:
Conceptual research design					
Plannung of research activities					
Data collection					
Data analyses and interpretation					
Manuscript writing					
Suggested publication equivalence value					