

BME Faculty of Chemical Technology

and Biotechnology George A. Oláh

Doctoral School

**Chemical Sciences, Biotechnology, Environmental and Chemical
Engineering Habilitation Committee and Doctoral Council (HBDT)**

Minimum requirements for publication during PhD procedures

The following minimum requirements have been set for **candidates, proponents and reviewers** with the aim of:

- providing a self-check option for applicants, based on which they can check whether their publications formally meet the minimum requirements set by BME's Chemical Sciences, Biotechnology, Environmental and Chemical Engineering Habilitation Committee and Doctoral Council (HBDT).
- providing guidance for proponents in checking whether the minimum requirements have been met.
- providing viewpoints for reviewers to be used during assessment.

Meeting the minimum requirements shall not automatically mean that the degree is also awarded.

Obviously, scientific activities and MTMT-registered publications cannot be evaluated by a single number, especially not with a number that only designates the quantity of scientific publications. Consequently, the minimum requirements described herein must be fulfilled, but are *not necessarily enough* to obtain a PhD degree. When assessing the Candidate's publications, quality aspects (standard of journals, possibly the number of citations, etc.) shall also be taken into consideration, and when awarding PhD degrees it is crucial to establish the extent of the candidate's (decisive) contribution in the case of joint publications.

The Candidate must fill in a table entitled "*Publications*", which gives details of the publications linked to the thesis statements and other publications to be included in the thesis. This table must be attached at the time of submission. In the case of publications/patents to be used for the thesis statements, it is essential to prepare "*Co-author declarations*". In these declarations Hungarian co-authors without PhD degrees, participating/planning to participate in a doctoral programme in Hungary, agree on the extent of their contribution to a given scientific work. The declaration is signed and verified by the supervisor, thus assuming responsibility for the extent of the contribution they verify, even if they are not the author/corresponding author of the publication. The declaration needs to be prepared once, when the given publication/patent is used in a qualification procedure (or admission process to a doctoral school) for the first time, and every co-author is advised to keep a copy for any future qualification procedures. The Dean's Office maintains a database of these declarations.

When a PhD thesis is submitted, the HBDT will start to examine whether the thesis is ready for a debate if the following minimum requirements are met:

- (1) the criteria specified in Section 17 (5) of the BME DHSZ: prescribing that "the minimum requirement is at least 3 peer-reviewed publications already published (or accepted for publication). Minimum 2 of these must be in a foreign language, minimum 2 published in a journal, minimum 2 must be high-quality publications of the candidate's own work with their predominant contribution, and minimum 2 publications must be registered in the Web of Science or Scopus database."

- (2) The candidate must have minimum three publications listed in the “*Publications*” table submitted with the thesis, related to the thesis statements. One of the publications may be substituted with a patent ***approved*** as per Point 3c). The patent and the publication containing the same results are not considered as separate publications. *If the minimum requirements are met, any additional number of publications may be used in the thesis, which shall be subject to no criteria beyond the general requirements of scientific merit.*

The candidate’s “*significant contribution*” to the publications is defined as follows: (2a)

In the “*Co-author declaration*” for the publications submitted with the thesis, the candidate's contribution among the ***co-authors without a PhD degree who are enrolled in a Hungarian programme*** exceeds 50%.

If the candidate is not the first author, they must state in the co-author declaration what their contribution to the communication was (if not stated in the publication itself).

- (2b) In the case of patents, ***when determining the candidate’s contribution as per 2a)*** in the “*Co-author declaration*”, the ratio of co-authors without a PhD degree, enrolled in a doctoral programme in Hungary, ***must not differ*** from the ratio of their contribution to the patent as co-inventors. The candidate ***must state their contribution to the patent*** in the “*Co-author declaration*” also in the case of patents.
- (3) Out of the minimum three publications published on the thesis topic (or documented as accepted for publication and related to the thesis statements)
- (3a) all journal articles on original research findings, published in **an English-language journal in a Web of Science and/or Scopus (Elsevier) database with an impact factor**, in which the candidate's contribution is significant. In addition, out of the publications to be used, the ***top three*** publications **must have an impact factor (IF) greater than 4** ($IF_{article1} + IF_{article2} + IF_{article3} > 4$)
- or**
- must have a quartile (Q) sum of less than/equal to 7** (where the Q classification is either Clarivate or Scimago and for $Q_{n_{article1}}, Q_{m_{article2}}, Q_{o_{article3}}$ $n+m+o \leq 7$). When calculating ***Q*** the quartile score of D1 publications is 0.
- IF*** and ***Q*** shall be determined using the data for the year of publication. If this is not yet known, the latest available value should be used.
- (3b) If the candidate has a significant contribution in two articles with original findings, published in ***journals listed in the Web of Science and/or Scopus (Elsevier) database, and their impact factor sum is 8 or higher***, and according to Clarivate or Scimago **one of them has at least a D1 and the other at least a Q2 ranking**, the third publication, in print or digital format, is subject to no other criteria than the general requirements of scientific merit.

- (3c) Where the *candidate's decisive share according to 2b)* has resulted in a **granted patent protection**, it is accepted as one of the publications in 3a) or 3b). A patent granted in Hungary is recognised under 3a) or 3b) as a Q1 publication, and a patent granted by the EU, WIPO or US is recognised under 3b) as a D1 publication.
- (4) The candidate must pass the complex exam.
- (5) The candidate shall have a documented verification of having held at least one scientific oral presentation, which is signed by the supervisor.
- (6) The minutes of the in-house defence conducted at any BME faculty must be presented, displaying the result of the vote in favour of the submission of the thesis. There is also an attached appendix with all the modifications made on the basis of the review suggestions mentioned during the in-house defence.
- (7) The candidate fulfils the language requirements set out in the BME DHSZ as follows:
Any one of the French, German, Italian, Russian, Portuguese or Spanish languages or another language accepted by the ad hoc majority decision of the HBDT is accepted. Fulfilment of the language requirements shall be verified with a basic level A2 language examination or equivalent certificate, or a secondary school diploma, university degree or academic title in the given language. Proof of language proficiency may be provided by passing an examination or giving a professional presentation in the language concerned, or by a documented minimum 1-year study trip abroad in the language area concerned. These are verified by a document issued by the workplace manager.

It is advised that the position of the chair of the HBDT be requested when any issues arise during the evaluation of publications.

These criteria were reviewed and approved by the EHBDT on 24 February 2022. The Code shall enter into force immediately. For doctoral degree procedures to be started after 24 February 2022, the requirements of the HBDT in force before 24 February 2022 or contained in this document shall be applied until 24 February 2025, according to the choice of the doctoral students/doctoral candidates.