

**Requirements of Shenzhen Institute of Advanced Technology,
Chinese Academy of Sciences for Scientific Research Achievements of
Materials and Chemical Engineering Degree**

In order to further standardize the application and award of graduate degrees, ensure the quality of graduate student training and improve the academic level of graduate dissertations, these Requirements are hereby formulated.

Article 1 Before applying for a degree, the degree applicants must meet the requirements of the field of materials and chemical engineering and achieve scientific research achievements.

Article 2 Before applying for a doctoral degree, graduate students should meet one of the following conditions:

(1) Publish two (including accepted) academic dissertations (except review dissertations) in related fields in the main stream journals of the field as the first author, including at most one article published as the co-first author, and the dissertation can only be used for one student to apply for a degree at most;

(2) As the first inventor or the second inventor after his supervisor, he has obtained one authorized domestic or international invention patent, which is equivalent to publishing a dissertation in a related field in a main stream journal in the field, and his authorized patented technology has been applied to engineering practice, and he can provide proof materials for the implementation and application of the patent;

(3) The research results of the dissertation are significantly innovative and unique, or have important theoretical and application value, recommended by the supervisor, reviewed and approved by the subject review group and the doctoral dissertation defense committee, and recognized by the academic degree committee of the training unit that their level meets the requirements for the award of a doctoral degree.

(4) For a doctoral student who applies for a degree in accordance with Article 3 above, his supervisor shall have only one recommended quota within five years, and the recommended quota for each training unit shall not exceed 10% of the number of applicants for a degree.

Article 3 Before applying for a master's degree, graduate students should meet one of the following conditions:

(1) As the first author or co-first author, he or she has published one (including accepted) academic dissertation (except review dissertations) in related fields in mainstream journals (including *Integration Technology*) or international conferences in the field, and the results are only applicable to one student applying for a degree;

(2) As the first inventor or the second inventor after their supervisor, apply for one invention patent related to their professional field and obtain an acceptance number;

(3) The research results of the dissertation are significantly innovative and unique, or have important theoretical and application value, recommended by the supervisor, reviewed and approved by the subject review group and the master dissertation defense committee, and recognized by the academic degree committee of the training unit that their level meets the requirements for the award of a master degree.

(4) For a graduate student who applies for a degree in accordance with Article 3 above, his supervisor shall have only one recommended quota within five years, and the recommended quota for each training unit shall not exceed 10% of the number of applicants for a degree.

Article 4 Supplementary provisions on the achievements of graduate students applying for academic degree

(1) As the co-first author of a high-level academic dissertation published in the top journals in the field (such as Nature and its sub-journals, Science, and Cell), the top three graduate students who are the main collaborators can apply for the dissertation defense with the academic dissertation at the same time. But the premise is that the main achievement of the academic paper (the actual contribution of the main collaborator himself) is one of the core contents of his dissertation;

(2) Graduate students who have won awards for scientific research achievements closely related to their dissertations, and whose contributions have been reviewed and recognized by the organizing committee of the professional degree education work, can be recognized by the following methods on the basis of the award certificates: the top five national or provincial and ministerial first-class scientific and technological achievement awards and the top three second-class scientific and technological achievement awards, which can be equivalent to one academic achievement. Master's degree can apply for master's dissertation defense with this scientific research achievement, but the premise is that the main achievement of the science and technology award (the actual contribution of the main collaborator himself) is one of the core contents of his dissertation.

Article 5 The supervisor of the degree applicant is the first person responsible for the examination of his academic dissertations and patents, and the academic achievements of the applicant must be reviewed and approved by the supervisor before they can be published.

Academic dissertations published or accepted by degree applicants must be an important part of their dissertations, scientific research achievements independently completed by degree applicants under the guidance of their supervisors, with "Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences" as the first signature unit and the applicant as the first author (or the second author after his supervisor). In addition, the byline of the second or third cooperative unit should be "University of Chinese Academy of Sciences" or "Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences".

Article 6 Various supervisors may put forward higher requirements according to the actual situation, but he must inform the students at the time of admission and include them in his training plan.

Article 7 The degree achievement requirements of this major will be implemented in batches in the winter of 2024. The original *Requirements of Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences for Scientific Research Achievements of Materials and Chemical Engineering Degree* (SYJ ZI [2022] No. 21) shall be repealed simultaneously.

Article 8 The right to interpret and modify the requirements of the requirements for discipline degree achievements belongs to the chemical materials discipline working group.