**Seminar Report Application Online**

Seminar I and II will hold in April or November for each year. Firstly, you need to apply online via the seminar application system.

**Address**

<http://oaonline.dicp.ac.cn/index-dicp.htm>

User name and password is your student ID.

Find and **click** seminar report in system named “Seminar报名”

Find and **choose** the type of your seminar which in the system it showed as “Seminar类型”

Type your Seminar title into “Seminar题目”, then click “修改”。

**NOTE：Application online can only be submitted before the deadline.**

**Rules for Doctoral Seminar Report of DICP**

According to the training program of postgraduate students in DICP and aimed at expand their horizon, every doctoral students need to complete the basic courses of Seminar I and Seminar II reports, and totally get 4 credits (2 credits for each). The requirements of the seminar report are as follows: Seminar I is required to be a tertiary subject, and the research area within a first-level discipline; Seminar II is required to be a research area within the tertiary discipline and not in the PhD dissertation.

**I. Assessment methods.**

1. The Graduate Education Department organizes the assessment work twice a year.

2. The Graduate Education Department will invite the experts to grade on the same criteria. The assessment takes the difference through the system, the pass rate does not exceed 90% of the participants.

3. Each doctoral student must be evaluated twice during the study period. The previous assessment failed to be reassessed by the candidate, until it was passed twice.

**II. Assessment criteria.**

1. Topic selection (20%) :

Whether the chosen subject is the frontier of discipline, whether it is an active hot spot and difficult topic in the world; The topic is too big or too narrow.

2. Understanding (20%) :

Whether to understand the main points of the work involved in the literature, or to introduce the document to you; Can you put forward your own opinions and opinions on the work

3. Comprehensive and comprehensive ability (20%) :

Whether we can grasp the key point and make it clear in a limited time; It was all in all directions, so that it was impossible to finish the report within the prescribed time.

4. Preparation and presentation of oral reports (20%) :

Can provide vivid, highlighted and clear film, and use their own language to report the literature to everyone; Or the film provided is a complete paper report, just read it; Or the content of the film is too simple to make the audience.

5. Ability to answer questions (10%) :

Whether you can understand the core of the problem correctly or feel irrelevant answer.

6. Grasp of breadth (Seminar I) and depth (Seminar II) (10%) :

For the subject of Seminar I, it is possible to master this subject In a macro way.

There is a profound understanding and understanding of the research direction involved in Seminar II.

**III. Reporting time.**

Students report 15 minutes and the judges ask questions for 5 minutes.

Note: my current subject Settings are as follows:

First-level disciplines: chemistry, chemical engineering and technology, physics, materials science and engineering.

The secondary discipline (professional) : optical, atom molecules and physical, analytical chemistry, organic chemistry, physical chemistry (including: chemical physical), chemical engineering, biological, chemical, industrial catalysis, material physics and chemistry

Three disciplines (research) : refers to the major research direction, such as biochemical analysis, molecular reaction dynamics, chromatography, organic synthesis, organic structure analysis, catalytic, optical, electrochemical, membrane separation and so on.

IV. Matters needing attention.

The doctoral Seminar report strictly prohibits the inclusion of confidential information.

□Seminar I □SeminarII

TITLE：配位聚合物的应用研究

Group Name

**Topic Significance**

配位聚合物（coordination polymers）是有机配体与金属离子通过自组装过程形成的具有周期性网络结构的晶体材料。它结合了复合高分子和配位化合物两者的特点，是一类具有特殊性质的杂化材料。作为新型功能性分子材料，配位聚合物的设计与合成，结构及其性能的研究越来越受到各个领域科学家的重视，形成了跨越多个学科的热点研究领域。

**Content**

具有三维空旷网络结构的金属有机骨架材料（metal-organic framework，MOFs）是一种稳定的配位聚合物材料。MOFs材料在溶剂分子脱除后能保持骨架结构稳定，具有超大的比表面积和孔体积。稳定性的提高大大拓展了MOFs材料的应用领域，成为MOFs材料发挥其特殊性质的基础。MOFs材料可以用于类分子筛载体、气体存储和分离、非线性光学、分子磁体、手性拆分、发光材料、光电转化、催化等众多领域。其中MOFs在多相不对称催化和光催化领域的应用由于其重要性逐渐受到科学家的重视。

使用具有手性催化活性的有机分子作为配体，可以得到具有手性催化活性的MOFs材料。这是一种特殊的多相化方式，催化剂负载量大，活性中心均匀分布，开放的孔道有利于底物与活性中心接近。在手性催化中具有重要应用的卟啉、席夫碱、联萘配体都已成功合成了MOFs材料，而且材料具有较好的手性选择性。以光学纯的手性酒石酸衍生物为配体，合成具有手性孔道的MOFs材料，不仅可以成功地拆分外消旋的配位化合物，而且还成功实现了对酯交换反应的不对称催化作用。

**Prospect**

由于作为配位聚合物组成部分的金属离子和有机配体的高度可调性和配位方式的多样性，配位聚合物具有无限的组成和结构可裁性，这是其它材料所无法比拟的。作为一种新型的功能性分子材料，易功能化的特性使配位聚合物具有广泛的应用领域。越来越多的具有特定结构和特殊性质的材料被不断的开发出来，在各个领域发挥着重要作用。经过合理设计，定向合成具有特定拓扑结构或预期功能特性的配位聚合物材料，将是一个最重要的研究方向。

（Printed and submitted to Graduate Education Department; Control In Single PAGE）

Seminar Qualification Review Sheet

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| --- | --- | --- | --- |
| Name | | Major | Enrollment Year |
|  | |  |  |
| Group | | Supervisor | Seminar Type |
|  | |  |  |
| Research Direction | |  | |
| Major of Master Degree | |  | |
| Title of Master Thesis | |  | |
| Title of this Seminar Report | |  | |
| Supervisor Opinion | Supervisor Signature：  yy-mm-dd : | | |
| Graduate Education  Department Opinion | Opening report Yes No  Stage Report Yes No    yy-mm-dd : | | |

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