

# Graduate Degree Requirements

School of Chemistry and Materials Science (SCMS)

University of Science and Technology of China (USTC)

**Article 1.** Following requirements are formulated by the Academic Degree Subcommittee of SCMS according to the notification “Guidelines on proper use of SCI papers in higher education institutions towards establishing correct evaluation rules for scholarly achievements” co-issued by the Ministry of Education and the Ministry of Science and Technology of People’s Republic of China.

## **Article 2. Course, dissertation, and other requirements for PhD candidates**

**2.1 International academic communication/exchange experience:** A Ph.D. candidate is required to participate at least once in international academic conferences, or have a short-term visit to an overseas institution, or obtain credits from a chemistry or materials specialty course taught in English offered by USTC. The student **MUST** submit supporting documents to the SCMS’s registrar upon fulfilling one of the above requirements.

**2.2 Course taking:** To qualify for a doctoral degree, a student **MUST** meet the course requirement listed in the curriculum of a specialized graduate program.

**2.3 Seminar attendance:** A Ph.D. candidate **MUST** attend at least 15 academic lectures, fill out the required form (downloadable from the website of SCMS) summarizing the content of each talk, and then submit them to the SCMS’s registrar (carbon copied to the student’s advisor) within three days. The student is also required to give at least one oral talk on his/her research in an academic conference or a graduate forum or salon held by SCMS. The student **MUST** submit proofs of these activities to the SCMS’s registrar.

**2.4 Annual progress report and general qualifying examination:** The SCMS conducts academic progress reviews for all graduate students once every academic year. A student is mandatorily required to submit a research report annually. A divisional examining committee will review the reports upon approvals of the students’ advisors and provide evaluation reports. A Ph.D. candidate who fails in the research progress assessment will be transferred to a master’s program. General qualifying examination is highly encouraged for each division of the program but not mandatory.

**2.5 Teaching experience:** A Ph.D. candidate **MUST** serve as a teaching assistant for at least one semester in courses offered by USTC. Note: A teaching assistantship taken during the master's program at USTC is recognized.

**2.6 Dissertation prospectus:** The dissertation prospectus is scheduled by a student’s supervisor according to his/her research progress at the third or fourth semester after being qualified as a Ph.D. candidate. A panel consisting of five experts (including at least three full professors) in a specific (or related) discipline should evaluate the candidate’s oral and

written reports.

### **Article 3. Publication requirements for Ph.D. candidates**

3.1 Prior to applying for a doctoral degree, a student MUST publish (or accepted for publication) two first-authored research papers related to his/her dissertation on scholarly journals recommended by the academic degree subcommittee of SCMS (see Appendix 2). Meanwhile, one of the published papers MUST appear on a high-level journal listed in Appendix 1. Note: USTC should be the first-listed institution in both papers.

3.2 If one dissertation-related research paper, with the Ph.D. candidate being the first author and USTC being the first-listed institution, is published in Science, Nature (or its sister journals), PNAS, PRL, JACS, Angew. Chem. Int. Ed., or Adv. Mater., this paper can be accepted as a publication fulfilling the requirement 3.1.

3.3 One dissertation-related research paper published by a Ph.D. candidate as the second-listed co-first author in Science, Nature (or its sister journals), PNAS, PRL, JACS, Angew. Chem. Int. Ed., or Adv. Mater. is equivalent to a regular journal paper listed on the top line (No. 0) of Appendix 2.

3.4 A State Science or Technology Award (among the first 5 awardees), or a provincial or ministry-level science or technology award (among the first 3 awardees), is equivalent to a regular journal paper listed on the top line (No. 0) of Appendix 2.

3.5 Papers published in journal supplements are generally not accepted for degree application.

### **Article 4. Publication requirements for a master's degree**

4.1 Before applying for a master's degree, a student is required to publish (or accepted for publication) a first-authored (or second when supervisor being the first) at least one research paper related to his/her thesis in scholarly journals listed in Appendix 2. Note: USTC should be the first-listed institution in the paper. Papers with the candidate listed as a co-first (not the first-listed) author are not valid for degree application.

4.2 A State Science or Technology Award (among the first five awardees) or a provincial or ministry-level science or technology award (among the first three awardees) is equivalent to a regular paper listed in Appendix 2.

4.3 An officially disclosed or granted patent filed with a master's candidate as the first inventor (excluding the supervisor) is equivalent to a regular paper listed in Appendix 2.

**Article 5. External dissertation quality review: Doctoral dissertations that are defended in the last year will be randomly selected for external review by anonymous experts.**

**Article 6. The requirements and regulations will become effective in 2023.**

**Appendix 1. High-Level Scholarly Journals Recommended by the Academic Degree  
Subcommittee of SCMS**

No.	Journal title	ISSN	Publisher/Sponsor
0	中科院 JCR 期刊分区 1 区和 2 区期刊		
1	METALLOMICS	1756-5901	Royal Society of Chemistry
2	TALANTA	0039-9140	Elsevier
3	ANALYST	0003-2654	Royal Society of Chemistry
4	ORGANIC & BIOMOLECULAR CHEMISTRY	1477-0520	Royal Society of Chemistry
5	JOURNAL OF PHYSICAL CHEMISTRY 系列		American Chemical Society
6	REVIEW OF SCIENTIFIC INSTRUMENTS	0034-6748	American Institute of Physics
7	POLYMER	0032-3861	Elsevier
8	Giant	2666-5425	Elsevier
9	INTERNATIONAL JOURNAL OF PHARMACEUTICS	0378-5173	Elsevier
10	JOURNAL OF COLLOID AND INTERFACE SCIENCE	0021-9797	Academic Press Inc.
11	JOURNAL OF THE EUROPEAN CERAMIC SOCIETY	0955-2219	Elsevier
12	JOULE	2542-4351	Cell Press
13	MATTER	2590-2385	Cell Press
14	CCS Chemistry	2096-5745	中国化学会

**Appendix 2. Scholarly Journals Recommended by the Academic Degree Subcommittee  
of SCMS**

No.	Journal title	ISSN	Publisher/Sponsor	备注
0	中科院 JCR 期刊分区 1 区至 4 区期刊			Eligible for Ph.D. applicatio n (see Article 3)
1	中国科学系列期刊		中国科学院	
2	中国科学技术大学学报	0253-2778	中国科学技术大学	
3	应用化学	1000-0518	中国化学会,中科院长春应用化学研究所	
4	化学通报	0441-3776	中国化学会, 中科院化学研究所	
5	色谱	1000-8713	中国化学会, 中科院大连化学物理研究所	
6	感光科学与光化学	1000-3231	中科院理化技术研究所, 中国感光学会	
7	药学学报	0513-4870	中国药学会, 中国医学科学院药物研究所	
8	高分子材料科学与工程	1000-7555	中国石油化工股份有限公司科技开发部、国家自然科学基金委员会化学科学部, 等	
9	化学试剂	0258-3283	中国分析测试协会, 等	
10	分子催化	1001-3555	中科院兰州化学物理研究所	
11	分析测试学报	1004-4957	中国分析测试协会	
12	中国腐蚀与防护学报	1005-4537	中国腐蚀与防护学会, 中科院金属研究所	
13	功能高分子学报	1008-9357	华东理工大学	
14	理化检验·化学分册	1001-4020	上海材料研究所, 机械工程学会理论检验分会	
15	膜科学与技术	1007-8924	中国蓝星(集团)股份有限公司	
16	高校化学工程学报	1003-9015	浙江大学	
17	中国生物医学工程学报	0258-8021	中国生物医学工程学会	
18	辐射研究与辐射工艺学报	1000-3436	上海应用物理研究所	
19	化工学报	0438-1157	中国化工学会, 化学工业出版社	
20	分析实验室	1000-0720	中国有色金属学会, 北京有色金属研究总院	
21	明胶科学与技术	1004-9657	中国日用化工协会明胶分会	

No.	Journal title	ISSN	Publisher/Sponsor	备注
22	中国医药	1673-4777	中华医学会	
23	药物分析杂志	0254-1793	中国药学会	
24	离子交换与吸附	1001-5493	南开大学	
25	应用科学学报	0255-8297	上海大学，中科院上海技术物理研究所	
26	分析仪器	1001-232X	中国仪器仪表行业协会，北京分析仪器研究所	
27	化学反应工程与工艺	1001-7631	浙江大学，上海石油化工研究院	
28	功能材料	1001-9731	重庆材料研究院	
29	化学工程	1005-9954	华陆工程科技有限责任公司	
30	化工机械	0254-6094	天华化工机械及自动化研究设计院	
31	中国药物化学杂志	1005-0108	沈阳药科大学，中国药学会	
32	同位素	1000-7512	中国核学会同位素学会	
33	高分子通报	1003-3726	中国化学会、中科院化学研究所	
34	分析科学学报	1006-6144	武汉大学，北京大学，南京大学	
35	光谱实验室	1004-8138	中科院化工冶金研究所等	
36	水处理技术	1000-3770	杭州水处理技术研究开发中心有限公司，中国海水淡化与水再利用学会	
37	感光材料	1673-8101	全国感光材料信息站	
38	现代化工	0253-4320	中国化工信息中心	
39	环境化学	0254-6108	中科院生态环境研究中心	
40	中草药	0253-2670	中国药学会，天津药物研究院	
41	中国烟草学报	1004-5708	中国烟草学会	
42	烟草科技	1002-0861	中国烟草总公司郑州烟草研究院	
43	硅酸盐学报	0454-5648	中国硅酸盐学会	
44	复合材料学报	1000-3851	北京航空航天大学	
45	哈尔滨工程大学学报 (英文版)	1006-7043	哈尔滨工程大学	
46	核技术	0253-3219	中国科学院上海应用物理研究所	
47	精细化工	1003-5214	中昊（大连）化工研究设计院有限公司	

No.	Journal title	ISSN	Publisher/Sponsor	备注
48	科学通报	0023-074X	中国科学院	
49	生物工程学报	1000-3061	中国科学院微生物研究所	
50	生物技术通报	1002-5464	中国农业科学院农业信息研究所	
51	石油学报	0253-2697	中国石油学会	
52	石油与天然气地质	0253-9985	中国石化股份有限公司石油勘探开发研究院	
53	食品科学	1002-6630	北京食品科学研究院	
54	天然气工业	1000-0976	中国石油天然气股份有限公司西南油气田分公司	
55	中国化学	1001-604X	中国化学会	
56	中国药理学报	0253-9756	中国药理学会	
57	中国有色金属学报	1004-0609	中国有色金属学会	
58	中国中药杂志	1001-5302	中国药学会	
59	中华放射学杂志	1005-1201	中华医学会	
60	中华放射医学与防护杂志	0254-5098	中华医学会	
61	中华中医药杂志	1673-1727	中华中医药学会	

Note: The Academic Degree Subcommittee of SCMS also recognizes research papers published in physics journals for graduate students from the physical chemistry major (including chemical physics).

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