

Division of Environmental Design	Research field	Environmental Materials	Lab. ID ED!6
Laboratory web site	http://physics.w3.kanazawa-u.ac.jp/ohashi/index-e.html		
Research subjects			
Until now Japan has imported a lot of advanced techniques from the western countries, which has highly qualified techniques and sciences. These techniques are based on the fundamental natural sciences. But now Japan is a member of the advanced countries with high level technology. So it should be needed to develop an advanced technology which is developed by his own fundamental sciences. For this purposes, we have to have a different viewpoint in the natural sciences. One useful method for this purpose is to control the thermodynamical parameters in the wide range. By using this method we will find a lots of new phenomena.			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
Master course: The first grade students take two seminars, using English text books or journals. At the end of the first grade, the students have a presentation about about the preparation status and a research plan for the Master thesis. The students must attend to a conference and have a presentation about your research at least once. At the end of the second grade, the students submit the Master thesis have a presentation in a public hearing.			
Doctor course: Students students are encouraged to go for outer activities, participating research workshops/ meetings, international conferences, even foreign country institutes for months. Students must submit jurnal at least once.			
Daily life in the laboratory, etc.			
Personal working desk with a personal computer is available for every student. All relevant students of undergraduate, Master, Doctor and post Doc researchers share the laboratory rooms, and everyday free discussion on your research or your life are strongly encouraged. As needed in the research interest, students study a part of some textbooks such as thermodynamics, statistical mechanics, continuum mechanics, quantum mecanics, solid state physics, etc. Many laboratory activities are organized like, welcome party for new comers, excursion, summer workshop, etc.			
Message or comments by the laboratory faculty staffs			
Financial supports are usually available anddetermined by the laboratory meeting. All activities or correspondences in thelaboratory are done in English. The laboratory is managed by a weekly labo-meeting which must be attended by staffs and DC students, where allpolicies and practical financial supports for research are discussed and determined. After taking the doctoral degree, graduates will be post docresearchers at foreign countries, research or educational staffs at higher education organization, researchlaboratory staffs, etc.			
Recent Master theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
2021.3	Single crystal growth of Ce 1-1-2 compounds		
2021.3	Magnetic metal thin films grown by molecular beam epitaxy		
2020.3	Pressure-induced quantum phase transition in cerium compounds		
2020.3	Low-temperature properties of magnetic thin films and development of in-situ scanning tunneling		
2020.3	Physical properties of ferromagnetic oxide as magnetic refrigeration material		
2019.3	Lattice strain caused by magnetic phase transition in rare earth compounds		
2019.3	Electrical conduction and crystal structure of chromium thin film		
2019.3	Crystal growth of the ternary uranium transition metal carbides		
2018.9	Search for new actinide compounds		
2018.3	Search for superconductivity of chromium thin film		
2018.3	Magnetovolume effect of magnetic materials		
2017.3	Exploration of new magnetic refrigerant materials		
2016.3	Stress analysis and design of small opposed type high pressure device through finite element method		
2016.3	Physical properties of chromium thin film at low temperature		
Recent Doctoral theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
Laboratory mail address	<ohashi *at* se.kanazawa-u.ac.jp>		