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 are encouraged to go for outer activities, participating research workshops/meetings, international conferences, even foreign country institutes for months. Students must submit journal 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 mechanics, 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 and determined by the laboratory meeting. All activities or correspondences in the laboratory are done in English. The laboratory is managed by a weekly labo-meeting which must be attended by staffs and DC students, where all policies and practical financial supports for research are discussed and determined. After taking the doctoral degree, graduates will be post doc researchers at foreign countries, research or educational staffs at higher education organization, research laboratory staffs, etc.

**Recent Master theses in these 3 years (+ more if appropriate)**

<table>
<thead>
<tr>
<th>year.month</th>
<th>Thesis title (including English translation of Japanese thesis title)</th>
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<tr>
<td>2020.3</td>
<td>Pressure-induced quantum phase transition in cerium compounds</td>
</tr>
<tr>
<td>2020.3</td>
<td>Low-temperature properties of magnetic thin films and development of in-situ scanning tunneling</td>
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<tr>
<td>2020.3</td>
<td>Physical properties of ferromagnetic oxide as magnetic refrigeration material</td>
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<tr>
<td>2019.3</td>
<td>Lattice strain caused by magnetic phase transition in rare earth compounds</td>
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<tr>
<td>2019.3</td>
<td>Electrical conduction and crystal structure of chromium thin film</td>
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<tr>
<td>2019.3</td>
<td>Crystal growth of the ternary uranium transition metal carbides</td>
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<td>2018.9</td>
<td>Search for new actinide compounds</td>
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<td>2018.3</td>
<td>Search for superconductivity of chromium thin film</td>
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<td>2018.3</td>
<td>Magnetovolume effect of magnetic materials</td>
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<tr>
<td>2017.3</td>
<td>Exploration of new magnetic refrigerant materials</td>
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<td>2016.3</td>
<td>Stress analysis and design of small opposed type high pressure device through finite element method</td>
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<tr>
<td>2016.3</td>
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**Recent Doctoral theses in these 3 years (+ more if appropriate)**

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<tr>
<td>Laboratory mail address</td>
<td>&lt;ohashi <em>at</em> se.kanazawa-u.ac.jp&gt;</td>
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