Become a materials scientist!

NIMS offers attractive graduate programs
What's going on with college life at NIMS?

Q1: How do the NIMS graduate programs work?
A: See the “NIMS Study Guide” on p. 4.

Q2: What is students’ life like?
A: See “Close-up: Student Researcher’s Life” on p. 6.

Q3: What research fields are available at NIMS?
A: See “Seven research fields” on p. 10.

Q4: What options are available for students who complete the program?
A: See “Open talk with former participants” on p. 14.
A road to a materials scientist
NIMS Study Guide

Joint Graduate School Program
Academic degree program that develops students into specialists under the NIMS researchers

Graduate studies offer students their first opportunities to gain vital experience when pursuing professional research careers. If you are passionate about becoming a researcher on the world stage, your best chance is to put yourself in a front-line research environment. The Joint Graduate School Program is designed to offer such an environment. Participants in this program have the privilege to study under the direction of NIMS researchers, who serve as their academic advisors from admission to graduation.

NIMS researchers who are faculty members at one of NIMS partner universities (University of Tsukuba, Hokkaido Univ., Waseda Univ. or Kyushu Univ.) serve as academic advisors. Program participants can initially choose labs to join, and this automatically determines their home universities. They carry out their research primarily under the supervision of their advisors at NIMS. They also go to their universities to attend lectures and to have their theses reviewed.

This Program curriculum requires students to give research seminars in English. This environment makes it easier for international students to focus on their research. We also admit “adult graduate students”—workers interested in pursuing doctoral degrees. This Program is for motivated students who develop high levels of research expertise.

Duration
From enrollment to graduation
Support
Onsite for NIMS Graduate Research Assistantship and financial support (see p. 5)

NIMS Internship Program
The internship is perfect for the first step before committing

Some students may be interested in the Joint Graduate School Program or in joining a lab as a professional researcher in the future, but may also want to get a sense of actual research and the NIMS research environment before making a final decision. This Program may fit their needs. Undergraduate and graduate students can apply for this program and participate for up to 90 days. The internship application can be sent to any NIMS groups. In addition, qualified applicants may receive financial support to cover their accommodation fees during the program. Many students of the Joint Graduate School Program use this internship.

International Cooperative Graduate Program
Students from globally renowned graduate schools are accepted to NIMS

NIMS concludes an International Cooperative Graduate Program (ICGP) agreement to carry out collaborative researches with overseas universities. NIMS accepts doctoral students through ICGP. Students can conduct part of their thesis work at NIMS with the co-supervision by NIMS researchers.

In addition to commitment to advanced materials research, NIMS also provides an effective learning environment for students. We offer students a variety of programs, ranging from internships of several weeks to multiyear programs.

Degree

NIMS Graduate Research Assistantship
Support program that frees students to focus on research

In principle, participants in the Joint Graduate School Program are entitled to the NIMS Graduate Research Assistantship. This Program pays students’ living expenses, allowing them to concentrate on their research without financial concerns.

Application
Once a year (in May/June)
Duration
Up to 90 consecutive calendar days
Financial Support
Stipend, accommodation fee

NIMS Joint Research Hub Program
NIMS makes its state-of-the-art facilities available to groups of researchers

This program targets groups of researchers—a Japanese faculty member acting as a principal investigator and his/her students—and gives them the opportunity to work with NIMS researchers in a well-equipped research environment. NIMS also provides financial support to cover their accommodation costs and fund their research. This program is mutually beneficial to both participants and NIMS. Research groups benefit from access to sophisticated equipment, enabling them to carry out advanced experiments and research. While, NIMS benefits from valuable opportunities to network with highly skilled researchers.

New CUPAL funding category
A special funding category to support young researchers (faculty members under 40 years of age as of April 1, 2019) who have earned doctoral degrees within the previous 10 years was established in FY2019. This is different from existing funding categories in that it covers the costs of travel to other places than NIMS (e.g., scientific conferences) if the trip is justified as a necessary part of the research project. This category strongly supports career advancement by young researchers.

* A principal investigator is a faculty member affiliated with a university, industrial research institute or college of technology in Japan.
* Schedules vary depending on the project, but the program must be completed by the end of the fiscal year in which the application is approved.
* Financial support is allocated for all expenses (accommodation, transportation, and others) and up to 500,000 yen for research expenses.

For more information, please scan the QR codes below to go online and further.
What’s it like to study at NIMS?

Close-up: Student Researcher’s Life

The lives of college students studying at a research institute may be difficult for most people to imagine. We shadowed a graduate student for two weeks to provide a real-world example.

DAY 1
Orientation

An orientation is held annually at NIMS for students joining the Kyushu Univ.-NIMS Joint Graduate Program. Curriculums, academic credit systems and other details are explained. The orientation also has a gathering of faculty members and students to deepen engagement.

DAY 3
Experiment at the NIMS open facility

Norihiro conducts experiments using the equipment available both in his lab and at the NIMS open facility. A diverse array of advanced equipment is conveniently accessible in the nearby buildings. On this day, he used a confocal laser scanning microscope at the NIMS Molecular & Material Synthesis Platform.

DAY 8~10
Collaborative research at Kyoto Univ.

He brought molecular samples synthesized in advance to the collaborator’s lab at Kyoto Univ. They carried out in-depth molecular structural analysis using MAIR spectrometry developed by Prof. Takeshi Hasegawa. He is conducting three joint research projects with other groups at NIMS and external research organizations.

DAY 12
Dinner with other students

He went to dinner with students he had met the orientation. He had a great time talking with them about research and general daily activities.

DAY 14
Group meeting

The NIMS Molecular Design & Function Group includes the Sugiyasu Lab where he works, the Takeuchi Lab (University of Tsukuba-NIMS Joint Graduate Program) and other researchers. This monthly group meeting affords him an opportunity to consult with experts.

I became interested in the NIMS Joint Graduate School Program while working on my master’s degree at a different university, when I was looking for a doctoral program. One day I visited NIMS to use its open facility and happened to pick up a NIMS pamphlet. I read about the Sugiyasu Lab and found it very attractive because it was researching supramolecular polymers.

A supramolecular polymer is a type of polymer that consists of a group of molecules that were connected through non-covalent linkages. These polymers have unique properties due to reversible monomer to polymer transitions. I learned that the Sugiyasu Lab had designed a number of unique functions using this polymeric property. As a master’s student, I had been researching organic synthesis of sugar chains composed of a series of monosaccharides, such as glucose and glucosamine, for possible medical and agricultural chemical applications. My fascination with the fact that supramolecular polymers can afford greater freedom in molecular design than sugar chains led me to take the Sugiyasu lab entrance exam.

When I applied for the doctoral program, I encountered some difficulties associated with changing the subject of my study. One of the requirements was to prepare a research proposal, which was challenging because I had no experience handling supramolecules. Despite this difficulty, I did not give up, believing I had a golden opportunity to pursue what I really wanted to study. In retrospect, my life might have been easier if I had had a clear career vision before taking my university entrance exams. However, people generally develop broader interests as their knowledge increases. In my case, the right time to make a critical career decision came when I applied for the doctoral program. I was confident that NIMS would be a perfect environment for me based on my experiences using its facilities and communicating with Professor Sugiyasu. In fact, a wide array of advanced equipment is readily available at the NIMS whenever I want to test out new techniques. Moreover, compared to universities, students at NIMS have greater access to faculty, making it easier to get advice. I am about two-and-a-half years into my doctoral program now and my career plans have gradually changed. I previously planned to work for a private company, but the leading researchers I interacted with at NIMS have inspired me to become a professional researcher. I would like to use the intellectual curiosity and stimulating environment at NIMS to help me develop to further build my expertise.

Message from Norihiko

*See the boxed text on the opposite page.

Assistantship (p. 5)

*Funded by the NIMS Graduate Research Assistantship.

Pick-up Award for an original supramolecular polymer

Norihiro developed a supramolecular polymer with an Archimedes’ spiral structure. The polymer is composed of double-stranded nanofibers in a spiral arrangement. This unique structure has the potential to generate new electrochemical and optical properties. Norihiko was awarded the “Best poster presentation award” at an international conference held in Italy in June 2019 for his originality.

*14th International Symposium on Macrocyclic and Supramolecular Chemistry
Cem Eren Özbilgin

First-year doctoral student, Waseda Univ.-NIMS Joint Graduate Program

What’s it like to study at NIMS?
Close-up: Student Researcher’s Life

DAY 1~5
Experiment

Cem’s group controls the crystals’ orientation of a polycrystalline ceramic by using a strong magnetic field. This allows them to achieve the highest performance possible for a wide range of ceramic materials. His study focuses on developing high-performance solid electrolytes for next-generation secondary batteries. When students join his lab, they teach them experimental procedures.

DAY 1
Day off

DAY 2
Japanese language class

Japanese language classes are offered at NIMS for international students and researchers. Although English is used during research, he is learning the conversational skills needed for everyday life.

DAY 3
Experiment

DAY 4
Japanese language class @Osaka Univ.

DAY 5
Experiment

DAY 6
Day off

DAY 7
Day off

DAY 8
Collaborative research @Osaka Univ.

DAY 9
-

DAY 10
Seminar preparation

He returned from Osaka Univ., where he had been participating in a joint research project, and began preparing for his seminar presentation scheduled for the following day.

DAY 11
Seminar in Shizuoka

This seminar is an annual joint seminar on ceramics that consisted of several research groups from universities and institutions. He presented the latest research results on behalf of the Suzuki Lab.

ONE DAY
BBQ

He attended a BBQ hosted by the NIMS Ceramics Processing Group of which the Suzuki Lab is a part and other groups. Everyone seemed to have a great time.

EVERY DAY
Lunch

He usually has lunch at the NIMS cafeteria, where he often enjoys lively conversations with students working in other labs.

DAY 2, 4
Japanese language class

I joined the NIMS Internship Program in 2017. At the time I was a graduate student in Turkey researching solid electrolytes for all-solid-state lithium-ion batteries. I was looking for the ways to achieve crystal orientation in ceramics to benefit the anisotropic nature of ionic conduction in my compounds. During my research, I learned that NIMS was one of the few research organizations in the world conducting state-of-the-art research using high-intensity magnetic fields. Since I had been interested in Japanese culture and lifestyle, this also motivated me to pursue the internship opportunity at NIMS.

During the internship, I was privileged to have Prof. Suzuki—a world-class researcher in the field—as an adviser. Dr. Suzuki was friendly and accessible, consulting with me on experiments and reviewing my research papers even when he was very busy. My three-month internship was a rewarding experience. I enjoyed interacting with researchers from other countries and working in the cozy atmosphere of our lab. After completing the internship program, I returned to Japan as part of the Joint Graduate School Program in the hope of continuing my research at NIMS. I am delighted to have this opportunity to work in the stimulating environment NIMS affords. I believe that NIMS is an exceptional research organization internationally. Our lab is equipped with all of the tools necessary to smoothly perform a series of experimental steps, such as materials synthesis, sample preparation and evaluation. We are also allowed to use the equipment owned by other labs if needed. Additional advantages of working at NIMS include the experts knowledgeable about the scientific equipment available and maintenance services capable of quickly fixing equipment problems when they occur. We can conduct research efficiently without falling behind in the global competition. I have been able to fully dedicate myself to my research since coming to Japan, partly because I am enjoying life here.

MESSAGE FROM CEM

I am currently developing ceramic solid electrolytes with enhanced ionic conductivity. I hope to take advantage of the favorable research environment to make safe, high-capacity, and powerful next-generation secondary batteries a reality.

A married couple working at NIMS

Irem, Cem’s wife, is also a graduate student working at NIMS. She has been researching bioluminescence using semiconducting quantum dots in the Shirkata Lab as part of the Hokkaido University-NIMS Joint Graduate Program. Although they are still unfamiliar with Japanese customs, they are enjoying life here thanks to the support of the people around them.

Pick up!

Cem and Irem attended the local “Natsumi Tsukuba” festival on their day off. They greatly enjoyed this cultural event, including the traditional summer kimonos they wore.

Cem sets the sample(second from the left in the photo).
Basic chemistry  
Key chemical reactions in energy conversion devices (e.g., batteries and catalysts) take place at the boundaries (surfaces and interfaces) between materials. We aim to create material surfaces and interfaces with high energy conversion efficiency. You can participate in the development of sophisticated measurement techniques that enable real-time observation of surface/interfacial changes. You will also be able to study the use of these techniques in the development of next-generation energy materials.

Ceramics  
Ceramics composed of inorganic compounds, such as carbon and metal oxides are widely used as optical and electronic materials. In order to significantly increase the performance of ceramics, their crystalline structures need to be precisely controlled. Accordingly, we attempt to develop new ceramics by considering a broad range of approaches, from precision analysis of crystalline structures and individual particles to the development of crystal synthesis processes.

Condensed matter physics  
Our research goals are to understand the origins of unique material properties (e.g., thermal, electrical, magnetic, optical and mechanical) at the atomic or quantum level, derive new physical laws and develop novel materials. We consider all possible approaches to materials research (e.g., condensed matter theory, computational science, structural analysis and experiments) and develop new materials with scientific theory.

Joint Graduate School Program

Seven research fields

Any student interested in materials research is likely to find a stimulating research lab at NIMS!

Pick up!

Nagao’s Lab  
(Nagasaki Univ.-NIMS Joint Graduate Program)  
Orjan Saleh Handegard (left)  
: second-year doctoral student

“The goal of our research is processing electrically conductive ceramic materials into nanostructures using high vacuum systems—including a molecular beam epitaxy machine—and apply these products to the development of sensors and heaters capable of detecting and generating infrared radiation. We recently made a series of modifications to the epitaxy machine in the hope of increasing the level of vacuum it can produce, thereby facilitating the attainment of thin films with the intended structures. As a result, we achieved an ultra-high vacuum of 10⁻¹⁰ Pa.”

Ngo Hai Dang (right)  
: second-year doctoral student

“Our lab members work as a team, support one another and are eager to bring new materials and devices into the world. Dr. Nagao assigns us stimulating research projects and actively encourages us to participate in joint research with other universities/companies and to attend international conferences. This lab is a perfect environment in which to gain valuable experience and grow as a researcher.”

Pick up!

Chen’s Lab  
(University of Tsukuba-NIMS Joint Graduate Program)  
Linawati Sutrisno  
: first-year doctoral student

“Our lab specializes in research on biological tissue regeneration. We have been developing scaffold materials designed to promote cellular proliferation and differentiation by fully exploiting materials synthesis and microfabrication techniques. My research specifically focuses on scaffold materials intended for cancer treatment. I am working to design scaffold materials capable of encapsulating metal or inorganic nanoparticles lethal to cancer cells that are activated by external stimuli, such as magnetic fields and light. My experiments sometimes result in failures, but Dr. Chen always offers me encouragement and helpful advice.”

Pick up!

Tateyama Lab  
(Nagoya Univ.-NIMS Joint Graduate Program)  
Computational materials science, Electromagnetism

Pick up!

Ma Lab  
(Nagoya Univ.-NIMS Joint Graduate Program)  
Nanomaterials, Nanotube

BioMateriAlS

Biomaterials  
Biomaterials are used to compensate for impaired bodily functions resulting from injuries and illness and to promote healing. Scaffolds and foundation material that enables complete regeneration of biological tissues have been actively researched in recent years, while artificial joints and stents have long been in practical use. We investigate the impact of biomaterials on the body parts in which they are directly applied and develop highly functional biocompatible materials.

Pick up!

Ishii Lab  
(University of Tokyo-NIMS Joint Graduate Program)  
Nanomaterials, Optical materials

Pick up!

Tateyama Lab  
(Nagoya Univ.-NIMS Joint Graduate Program)  
Computational materials science, Electromagnetism

Pick up!

Ma Lab  
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Nanomaterials, Nanotube

For detailed information on each lab, please access the QR code on p. 4.

https://www.nims.go.jp/students/en/research/

**NIMS Internship Program** and **International Cooperative Graduate Program** accept students in other NIMS laboratories. For details, please access the QR code on p. 4.

Pick up!

Uchida Lab  
(University of Tsukuba-NIMS Joint Graduate Program)  
Optoelectronics, Thermoelectric conversion

Pick up!

Ishii Lab  
(University of Tokyo-NIMS Joint Graduate Program)  
Nanomaterials, Optical materials

Pick up!

Tateyama Lab  
(Nagoya Univ.-NIMS Joint Graduate Program)  
Computational materials science, Electromagnetism

Pick up!

Ma Lab  
(Nagoya Univ.-NIMS Joint Graduate Program)  
Nanomaterials, Nanotube

Seven research fields

Condensed matter physics  

Biomaterials

Overview

Ceramics

Basic chemistry

Organic materials

Pick up!

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(Nagasaki Univ.-NIMS Joint Graduate Program)  
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Computational materials science, Electromagnetism

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Nanomaterials, Nanotube

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Ishii Lab  
(University of Tokyo-NIMS Joint Graduate Program)  
Nanomaterials, Optical materials

Pick up!

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Computational materials science, Electromagnetism

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For detailed information on each lab, please access the QR code on p. 4.

https://www.nims.go.jp/students/en/research/

**NIMS Internship Program** and **International Cooperative Graduate Program** accept students in other NIMS laboratories. For details, please access the QR code on p. 4.
CO2 emissions need to be reduced by automobiles. In order to reduce the impact Nippon Steel Corporation? Could you describe your work at the while studying as a graduate student in the Joint Graduate School Program.

We asked Katsuya Nakano, who has been participating in a joint research project with NIMS while studying as a graduate student in the Joint Graduate School Program.

Adult graduate students aim to pursue doctoral degrees while continuing to work. What are their everyday lives like? What makes this program attractive? We asked Katsuya Nakano, who has been participating in a joint research project with NIMS while studying as a graduate student in the Joint Graduate School Program.

Could you describe your work at the Nippon Steel Corporation? I am engaged in steel research, mainly focusing on the development of steels for automobiles. In order to reduce the impact of automobiles on the environment, their CO2 emissions need to be reduced by increasing their fuel efficiency. This can be effectively achieved by decreasing the thickness of the steels used in automobiles, thereby reducing their mass. However, this approach will obviously compromise their collision safety. I am therefore researching and developing steels that remain very strong even when their thickness is reduced and that can be processed into complex shapes.

What inspired you to pursue a doctoral degree at NIMS? Industrial firms usually focus on applied research in order to meet their product development demands. However, the deep, fundamental knowledge that underlies applied research is indispensable. For this reason, Nippon Steel Corporation encourages its employees to acquire doctoral degrees, we are still required to completely fulfill our responsibilities at work. Fortunately, I am allowed to independently and flexibly manage my work schedule. Therefore, I am trying to find time to devote my research on doctoral program and the MOP project. I visit Professor Ohmura at NIMS to discuss experimental results and research papers once every few months. In order to earn a doctoral degree from Kyushu University, I need to write about three research papers for publication in scientific journals during my doctoral program. Although it is not easy to keep up with both my graduate studies and my job, the effort is very rewarding. I particularly enjoy the academic opportunity to study fundamental subject matter in depth, as it affords me the chance to gain a deeper understanding of basic technologies and develop greater expertise as a materials researcher. In addition, I can force myself to practice writing research papers, which are given a lower priority at work than my occupational duties. These experiences are definitely helping me grow as a researcher. Being an adult graduate student is very challenging, however, I appreciate the environment where I can work and study while encouraging with my coworkers who are willing to build knowledge and skills.

Please describe your activities as an adult graduate student. Although Nippon Steel Corporation encourages its employees to acquire doctoral degrees, we are still required to completely fulfill our responsibilities at work. Fortunately, I am allowed to independently and flexibly manage my work schedule. Therefore, I am trying to find time to devote my research on doctoral program and the MOP project. I visit Professor Ohmura at NIMS to discuss fundamental subject matter in depth, as it affords me the chance to gain a deeper understanding of basic technologies and develop greater expertise as a materials researcher. In addition, I can force myself to practice writing research papers, which are given a lower priority at work than my occupational duties. These experiences are definitely helping me grow as a researcher. Being an adult graduate student is very challenging, however, I appreciate the environment where I can work and study while encouraging with my coworkers who are willing to build knowledge and skills.

Katsuya Nakano
Steel Research Laboratory, Nippon Steel Corporation
Second-year doctoral student, Ohmura Lab
Kyushu–NIMS Joint Graduate Program

Ohmura, my current Ph.D. advisor, also served as my academic advisor during my master’s program. Professor Ohmura is an authority on material strength research and I’m delighted to have another opportunity to conduct research under his supervision.

The Joint Graduate School Program attracts diverse nationalities

The Joint Graduate School Program attracts students from many different countries, with Asian countries being the primary sources. Currently 130 students are participating in this program, of whom 100 have attained “NIMS Junior Researcher” status.

Statistics: NIMS graduate programs

Various programs available: number of participants

The “A road to a materials scientist: Study at NIMS!” on page 4 describes a variety of programs NIMS offers. Every year, many students and young researchers participate in research at NIMS as part of these programs.

Joint Graduate School Program attracts diverse nationalities

The Joint Graduate School Program attracts students from many different countries, with Asian countries being the primary sources. Currently 130 students are participating in this program, of whom 100 have attained “NIMS Junior Researcher” status.

Careers after completing the Joint Graduate School Program

A total of 385 students from 24 countries have successfully completed the program since its 2004 launch. Having gained special skills and experience at NIMS, they are now playing active roles in various organizations around the world.
They are now actively involved in their respective research fields.

We invited three materials scientists who completed the NIMS Graduate School Program. I went to the session, I met and talked with student researchers. As I tried to confirm this information, to my surprise, I found that NIMS had scheduled a student recruitment information session the following day. When I went to the session, I met and talked with Professor Yoshihiko Takano and found that we shared an interest in making room-temperature superconductors a reality. This was a fateful encounter for me.

Enjoying student life: working hard, playing hard

Nakatani: Dr. Mizuguchi and I began our doctoral programs in the same year. I remember often seeing Mizuguchi striding excitedly around the hallways carrying quartz tubes to be used to synthesize test samples (Nakatani laughs).

Mizuguchi: At the time I was diligently preparing test samples every day. Because I wanted to run the electric furnace continuously to synthesize the samples, I routinely placed raw materials in the furnace even on my days off despite having personal plans. We had a reason to work hard: iron-based superconductors had just been discovered by Japanese scientists in January of the year in which I decided to participate in the NIMS Joint Graduate School Program. Labs around the world did not want to fall behind in superconductivity research, which was expected to intensify after this Nobel Prize-worthy discovery.

Yamashita: During my doctoral program, I was happy to have the opportunity to allocate time for study. The day-to-day demands of my previous job had made studying impossible. I had access to a superb research environment equipped with a rich array of advanced equipment. In addition, Professor Koji Kimoto, my advisor, had the skills to take amazingly beautiful microscopic images, which inspired me to bring my microscopy techniques up to his level. I still remember the excitement I felt when I was able to see carbon atoms in graphene for the first time under a transmission electron microscope.

Mizuguchi: I must say that the most exciting moment for me came when I thought I had accomplished something great but later found out that I had failed (Mizuguchi laughs). As a novice researcher, I thought I had succeeded in synthesizing a superconductive material and was extremely thrilled; I might have joined the ranks of the elite discovers. However, to my bitter disappointment, I later found that an impurity was involved in the superconductivity. This taught me that research is never that easy. After this setback, I began conducting research more systematically in the hope of experiencing that initial feeling of exhilaration again. The most valuable aspect of NIMS for me was the opportunity to meet many outstanding researchers in chemistry, condensed matter physics and applied science. I tried to exploit this opportunity as much as I could by making plans to collaborate with them on many ambitious projects. Consequently, I was able to produce 10 research papers before completing my program.

Nakatani: Because the lab where I worked frequently carried out joint research with industries, my research was largely influenced to the direction of industrial applications of magnetic materials. I always felt joy in fulfilling this responsibility and I still feel the same enthusiasm today. As a student, I also engaged in activities other than research. I enjoyed cooking and eating curry with students from India and my interactions with them helped me substantially improve my English skills. I also joined a local mountaineering club and had a great time climbing the beautiful mountains in the Tsuchiura area.

Valuable experiences for future endeavors

Yamashita: Considerable experience and knowledge are both vital in preparing samples for electron microscope observations and in collecting data. What I learned at NIMS as a student has been very useful to me professionally. I have also tried to maintain the creativity I developed as a researcher at NIMS—by inventing new measurement techniques, for example. Mizuguchi: I was initially appointed as an assistant professor in the engineering department at my current university. I believe that the experiences I had at NIMS interacting with so many scientists helped me find my niche in the engineering department, even though my expertise was in physics. I cannot think of any other place that offers opportunities to learn about materials as extensively and intensively as NIMS. I encourage future students studying at NIMS to actively seek advice from the various scientists there and expand their potential.

Nakatani: Student researchers at NIMS tend to develop a sense of independence relatively early because they are treated as colleagues by their superiors. The NIMS Joint Graduate School Program definitely had a very positive impact on my career path and I hope to see the many students take full advantage of this program.

Yamashita: I urge students interested in the program to contact and consult with faculty members associated with it. I myself directly contacted Professor Kimoto by email to make an appointment despite never having met him. Students should actively explore all of their possible options.

(by Akiko Ikeda, Sci-Tech Communications)
\[
\frac{\partial T}{\partial t} = \kappa \frac{\partial^2 T}{\partial x^2}
\]

\[
D \cdot \mathbf{B} = 0 \quad \frac{\partial B}{\partial t}
\]
\[
D \cdot \mathbf{E} = -\frac{\partial \mathbf{D}}{\partial t}
\]
\[
D \cdot \mathbf{D} = \rho
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\[
D \cdot \mathbf{H} = j + \frac{\partial \mathbf{D}}{\partial t}
\]

OMG!

NIMS Graduate Program
Don't miss it!

\[
\psi = -\frac{\hbar^2}{2m} \frac{\partial^2 \psi}{\partial x^2} + V\psi
\]

SEMICONDUCTING MATERIALS