

Findings through JUACEP

Name: Chisato Atsumi

Affiliation at home country: Department of Crystalline Materials Science, Graduate School of Engineering, Nagoya University

Participated program: Short course 2016

Research theme: Specific peptide recognition against metal alloy surfaces

Advisor at the visiting university: Prof. Yu Huang

Affiliation at visiting university: Department of Materials Science and Engineering, HSSEAS, UCLA



-Research in UCLA

I would like to appreciate Prof. Yu Huang and JUACEP for giving me such a wonderful opportunity. The laboratory was very large and had a lot of apparatuses. Although the field of research in her group was similar to that of mine in Japan, my research here was completely different from that in Japan. So I read many papers to understand my theme and I learned how ignorant I am.

I was working with my mentor who is a candidate for Ph. D and a visiting student from China. I was lucky to have lab mate who started internship earlier than me, so she taught me how to do experiments. And mentor helped me when I wanted to use the analytical instruments which I didn't permit to use by myself. However, I sometimes bemoaned because I couldn't advance my experiments in my pace, it was up to my mentor and he was very busy. At that time, I ask other lab mates to help. All members in Yu Huang's group were very friendly and nice to me. My poor English sometimes caused problem, but they assumed and understood what I meant.

-Life in LA

The time I spent in LA was absolutely great. The campus of UCLA is very beautiful and the city around campus is very safe and convenient. And there are a lot of place to see in LA, moreover in the cities near LA. I went out many places on weekends. The most impressive thing for me is the comfortable weather in LA, always sunny, not so hot nor cold thorough a year. U.S.A. is a huge country, so everything such as road and food was huge. When you think the place is close on the map, it's very far. So it was sometimes convenient to go somewhere without car.

I lived in the apartment like a dormitory sharing one bedroom with another girl and kitchen and living room with other 3 girls. On the first day, I was very nervous because living alone in the foreign country and sharing my room with others was completely new experience for me, and I didn't know well about the place I would live in. The people living there was not only students, and they were from various countries. So talking with roommate was very interesting. We soon became friends and talked a lot. Every night was like a night of school trip. I satisfied with the environment here. Though I was nervous at first, thanks to many friends who helped me, I gradually accustomed to the life in LA and I could really enjoy my stay. There were so many small troubles here, but I could manage it every time. In the end, I couldn't understand why I was so nervous.



Findings through JUACEP

Name: Takaharu Katsu

Affiliation: Crystalline Materials Science, Nagoya University

Participated program: Short course 2016

Research theme: Synthesis of biopolymer compound with selective antimicrobial activity for denture applications

Advisor at the visiting university: Prof. Benjamin M. Wu, DDS, PhD

Affiliation at visiting university: Bioengineering, UCLA



I studied at UCLA for 2 months. I researched almost the same field as in Japan, but approached the aim through a different method. Furthermore, it was a new project in the lab, so I needed to search a lot of things. It was a little difficult, but it made me tough and strong. This has been a good experience for my future life.

As for the LA life, I visited many places and did a lot of things such as going to a Major League Baseball game, Hollywood, Santa Monica, Universal Studio Hollywood, San Francisco, and I even did surfing during weekends. I studied hard on weekdays, and I enjoyed a lot on the weekends.

This was the first time living without parents and I was especially afraid of cooking, but I actually enjoyed making dinner in the large kitchen. There is a Japanese supermarket near the house, so I was able to buy rice and other Japanese food. We shared the house with 4 people and they are all UCLA students. They kindly helped us adjust to this lifestyle. The room was big, clean, and quiet; moreover the weather in LA is very nice, especially since there is no rain and low humidity. It was so comfortable. On the last day, we had a sushi party at our house with roommates and Japanese JUACEP students. We enjoyed the Japanese traditional food.

Everything helped me improved. I spent a wonderful time there. I will never forget this experience. In the future, if possible, I would like to live and stay in LA again.

Finally, I really appreciate everyone who supported me, Prof. Wu, Prof. Ohtsuki and my lab mates, family, friends, and JUACEP whom all gave me such a special experience.



Life in Ann Arbor

Name: Kazuya Sato

Affiliation at home country: Quantum science and energy engineering

Participated program: Short course 2016

Research theme: Effect of scatter angle overestimation in Compton images of partial deposited energy

Advisor at the visiting university: Prof. Zhong He

Affiliation: Nuclear engineering and radiological Sciences



When I entered the US, I was very concerned about the life there. I am not good at speaking English, therefore I thought that I might not be able to even start my study. It was contrary to my expectations, and I had lived a happy life there. Not only for my study, but I did some activity like canoeing, golf, Frisbee golf, swimming in a lake etc.

Everything was impressive, especially people around Ann arbor. They are very kind and I was always helped when I encountered some problems. At the same time, I regret that I just did say "Thank you" and could not do a thing for the people.

Though I don't know how I can make the most of this experience at present, I am convinced that the experience should be useful someday in the future.



My findings through JUACEP

Name: Toshiya Sawaki
Mechanical Science and Engineering
Nagoya University, Mechanical Engineering
Participated program: Medium course: August 2016~ January 2017



Research theme: Development of transparent YSZ thin films
Advisor at the visiting university: Prof. Richard M Laine
University of Michigan, Materials Science and Engineering

In my case, I changed my research area from Mechanical Engineering to Materials Science. Everything was new for me, and it was hard to catch up with other students in my laboratory at first. But thanks to the support of professor and members in the laboratory, I could proceed my research. In particular, my knowledge about the research owes a lot to the class which I took. My professor was in charge of the class. Although I needed to do my homework every week and three examinations as other students in the class do, those experiences helped me to understand deeply the background of my research. A lot of people helped me to proceed my research. When I asked some questions resulted from my research, my professor and the members always took time and explained to me thoroughly. In addition, I am very thankful to people in charge of the experimental equipment. In University of Michigan, some of devices are shared by students in the engineering department, so I also needed to take training for use. Without their kindness and profitable advice, I could not master any equipment.

During my stay in United States, I experienced really a lot of things except for my research. But I would like to introduce two main things here.

Michigan stadium!!

The first thing is the Michigan stadium. University of Michigan is famous for a strong football team. Almost all students in the university have fun to watch football match. This stadium is so big that people call that "Big house". This stadium can accommodate one hundred thousand people at most. I went there to watch not only football game but also the performance of brass band. To be honest, I did not know the rule of football very much, but I enjoyed the match with my friends.



The second thing is the Halloween. In this season, even grocery stores sell Halloween stuffs like pumpkin dolls. Some people wear their Halloween costumes and walk around the city. I did not wear my costume, but when I went to the orchestra concert of Japanese video game "Final Fantasy", I could see many people wearing the character's costume made by themselves.

As often said, Japanese culture is a little unique compared to those of foreign countries. For example, I felt the difference about the ambitiousness. This is just my opinion, but I felt that students in University of Michigan have their own clearer dreams or purpose than Japanese students including me. Most of them also have reasons for their acting. I felt that I need to think about my purpose and act for realizing my dream. At this point this exchange program was beneficial for me.

Around my apartment!!



The best experience ever

Name: Kota Konishi

Affiliation at home country: Mechanical and Science Engineering, NU

Participated program: Medium course (Aug.2016-Jan.2017)

Research theme: Development of 3D reconstruction technics using a microscope

Advisor at the visiting university: Prof. Wei Lu

Affiliation at visiting university: Mechanical Engineering, Univ. of Michigan



I would say the best experience in my school life have been studying at the University of Michigan though the JUACEP problem. A year ago, my friend from UM highly recommended this JUACEP option, and I took his opinion. He was totally right. This experience will be helpful not only for the rest of my Master's studies but also for working at a company. I really appreciate my friend encouraging me to study abroad, JUACEP office giving me this opportunity, my parents supporting me financially, and professor Lu accepting me into his group.

The University of Michigan is one of the finest universities in the world and the surrounding city, Ann Arbor, makes it a great city for studying abroad (besides the severe winter). People in Ann Arbor are very kind and generous. For example, when I had difficulty locating housing, my friend's friend let me stay at his house for 2 weeks even though I was a complete stranger to him. We have since become great friends.

Academically, my research topic was "3D imaging". Since this was totally different from the research in Japan, I had a hard time proceeding on my work at UM. Thanks to my lab mate, however, I managed to complete the research. He was always helpful when I was in trouble. Even though my topic has nothing to do with his research, he tried to understand me and provided some advice. Of course, If I haven't asked my lab mate for assistance, I wouldn't have learned anything. I learned therefore that the most important thing is be an active person.

Besides the research, I traveled, played basketball, watched football, and cooked. I did so much, and can't describe it all. I also experienced some cultural differences. I like the "How are you" culture, and I found that people are interactive everywhere. And people were willing to let newcomer in their group, so I even played basketball on a team. I really liked how friendly people at UM were. On the other hand, what I didn't become accustomed to was the lack of punctuality. Even classes begin ten minutes late, and the 10 minutes is called "Michigan time". In terms of punctuality, Japan is the best country. Through finding cultural differences, I can now look at Japan from a different perspective.

I visited several places in the US. The most amazing trip was one to Las Vegas on Thanksgiving break. We enjoyed the gorgeous atmosphere, like water fountain shows, and saw an entertainment show called 'Blue Man Groupe'. It was totally worth the money. We additionally visited Red rock canyon, Antelope canyon, and the Grand Canyon. I was touched with the nature's magnificence.

Last but not least, this experience definitely affected my career vision and made me be a more active person. I am so thankful for all the people who are related to this JUACEP program. I had not only many precious experiences, but also made many great friends. I highly recommend studying abroad if you have a chance. Thank you.



Findings through JUACEP

Name: Akira Tsuji

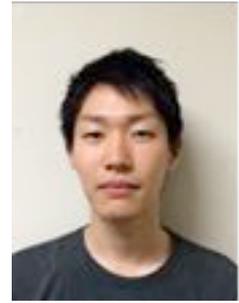
Affiliation at home country: Aerospace Engineering, Nagoya Univ.

Participated program: Medium course 2017

Research theme: High resolution resistive calorimetry made of a capillary tube

Advisor at the visiting university: Prof. Reddy, Prof Meyhofer

Affiliation at visiting university: Mechanical Engineering, Univ. of Michigan

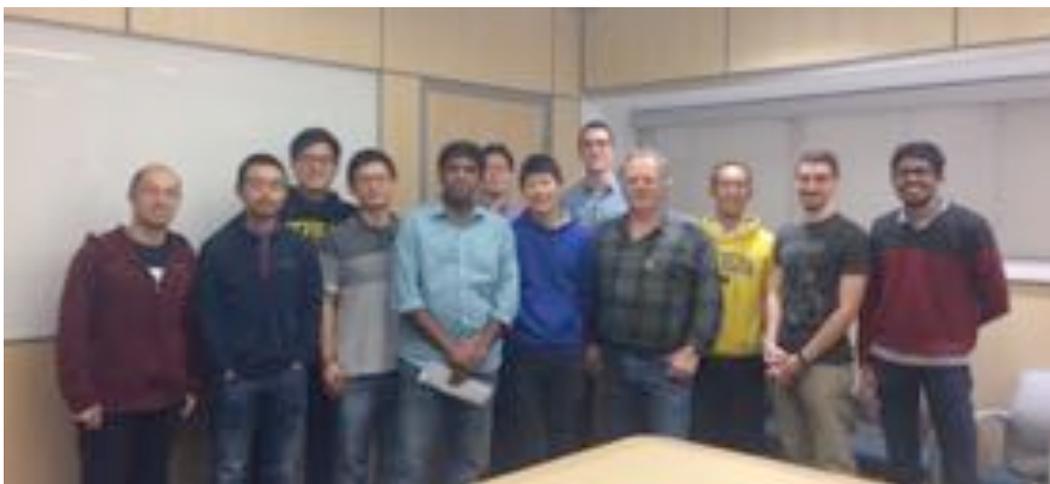


First of all, I am very grateful to Prof. Reddy and Prof. Edger for admitting me to stay at Nanoscale Transport lab. They gave me an opportunity to conduct a very interesting and challenging research. There, I was working on high resolution resistive calorimetry made of a capillary tube with Sunghoon, my TA, and development of low noise lock-in amplifier with Rohith, my TA. Especially, former topic was very challenging and interesting. Through these research, I was be able to learn electronic circuit, how to use spectrum analyzer, and micro-fabricated calorimeter. My TA Sunghoon and Rohith helped me a lot with the experimental side. Besides them, all lab mates have been helpful at all time. I would like to thank all of members in the lab for help me a lot.

I was able to visit some places. In Chicago, I ate deep dish pizza and saw “Bean”. Niagara falls were simply amazing. I was awed into silence when I saw those really up close. Boston had a good atmosphere, and I had a certain valuable experience there. Detroit was a thrilling city. The city is known as the most dangerous city in the US, and there were so many abandoned building. I spent New Year’s Eve in Times Square! It was crazy and perfect experience, but never again! New York was best city for me.

House share life is one of the best experiences in the U.S. We had 7 people in a small house! There were a lot of races in the house, and they were all good people. We have talked what happened the day, about own country, etc. almost every night, sometimes over beer. Everybody has own culture and thinking, and I was able to know these. I’m sure that this experience will have a positive influence in my life. I surprised that one of them (Andrew) was so good at Smash Bro. 64!

Through this program, I was able to learn a lot of things not only academic things but also cultural things, and it will be helpful to broaden my horizons.



Findings through JUACEP

Name: Naoki Kamimura

Affiliation at home country: Quantum Engineering, Nagoya University

Participated program: Medium 2016



Research theme: Local feeding APCVD graphene growth on Cu and Cu:Ni foils

Advisor at the visiting university: Prof. Ya-Hong Xie

Affiliation at visiting university:

Materials and Science Engineering, University of California Los Angeles

My experience through JUACEP was precious to me no matter whether I was on campus or off campus. Fortunately, I was able to meet many people with multicultural background due to the rich diversity of Los Angeles. One thing I found interesting is that every single student I met, despite the difference in nationality, was very ambitious and had clear academic goals at UCLA. In fact, they had specific reasons why they came to the university and the desire to accomplish their worldwide career goal after graduating. On the other hand, since I was born and raised in Japan as well as many of my friends and family, I only had Japanese way of thinking before I came here. By immersing myself into a multinational environment, I could broaden my perspective and also opened up my mind toward future goal and career.

Moreover, I would like to talk about my experiments at UCLA. I had been able to join UCLA for a total of six months as a visiting graduate researcher (VGR) under the supervision of Prof. Ya-Hong Xie. Our group was composed of four small research groups, each group worked on their own research. I worked with another VGR from Germany, a UCLA Ph. D student and a undergraduate student, focusing on local feeding APCVD graphene growth on Cu and Cu:Ni foils. Our group had many group discussions including professor, so I was able to be involved to the project in deep. My professor always asked us to conduct experiments and explain the results on the basis of physics very seriously. I really liked his professional approaches to the well-unknown phenomena. Furthermore, I was able to do experiments comfortably in the lab because my lab mates were very cooperative to me, especially when using new equipment and software. Unfortunately, I was not able to get large single-grain graphene, which is the biggest target for our group during my stay at UCLA but we just found several hints to get large single-grain graphene. Of course, the objective of the stay is to get results in the experiment. However, more importantly, I am grateful for the time doing the worthwhile work and heading toward the same goal with my valued peers and professor as one team. This experience at UCLA will for sure have good effects in my coming life. Lastly, I hope that my peers can do well and fabricate large single-grain graphene in near future.

As for the off-campus activity, I enjoyed a lot of things such as soccer, surfing, music concert and so on. Although there are plenty of things I have learned, felt and lived, I cannot mention all in detail because I only have A4 size sheet. Therefore, I would like to write down some of the places I visited, where I made unforgettable memories in each trip. Along with the experiments at UCLA, I had a chance to visit San Francisco, Santa Barbara, San Diego, Las Vegas, New York, Boston, Arizona and Cancun in Mexico. Honestly, every trip was amazing for me. Depending on the city, I could obviously see the difference in people's life style, culture, music, fashion, safeness, weather and so on. While I was able to see wonderful but strange places and people, it made me realize the vast diversity of the United States and how big the world is.

In the end, I would like to thank Jimmy, Hannes and Kazu for making my adventure such a special time of my life. And also I would like to express my appreciation to Prof. Xie, Prof. Saito and staffs of JUACEP for giving me this meaningful opportunity.



Findings through JUACEP

Name: Keisuke Goto

**Affiliation at home country: Micro-Nano System Engineering
Nagoya University**

Participated program: Long course 2016

**Research theme: Therapeutic Sepsis Biomarker Screening with Localized
Surface Plasmon Resonance Biosensors**

Advisor at the visiting university: Prof. Katsuo Kurabayashi

**Affiliation at visiting university: Mechanical Engineering,
University of Michigan**



This exchange program could change my entire life. In Japan, I was wondering why we did research, and lost my way. However, Professor Katsuo taught me the importance of having a clear vision for research and it completely changed my thought towards engineering and research. Throughout the supervision under him and his colleagues, I could build my strong mindset as a researcher and engineer such as problem solving and designing the research and experiment. If I did not come to Michigan, if I did not come to his lab, I would not be able to figure out my ethical question towards the research. Although I did not have any experience and knowledge about his research field, thanks to his and his colleagues' help, I could finish my project and slightly drive the research by myself. It is a great honor to work with them.

Thanks to my friends who I met in U.S., I had an absolutely great time with them. I went to kayak, BBQ, parties, and everything that I saw in U.S. was amazing. Also, it was fortunate for me to meet again my friend that I met in UK 2 years ago in U.S. During Thanksgiving break, we went to New York and New Haven because he was in Yale University. We really enjoyed watching Macy's parade and having Thanksgiving party. People that I met in U.S. were very kind and warm, so I cannot thank you enough.

The most exciting thing that I experienced in U.S. is definitely viewing rocket launch at Kennedy Space Center. Falcon 9, which is the rocket SpaceX developed, ascended to the space. This was the first reflight from KSC pad 39A since 2011, when the space shuttle Atlantis lifted off on the final flight of NASA's shuttle program. When I stared into the light ascending to the sky, I was like a kid in a candy store. This experience ignited my heart and determined my future dream. This is the second change of my life happened during JUACEP.

By the way, this was the first time for me to live by myself. Before I came to Ann Arbor, I did not know even how to cook and housework. But finally, I could survive somehow, haha. It was also a great experience for me.

I could not make it clear my future career, but I found the direction that my compass showed through this exchange program. I will never forget anything that I felt, experienced and thought through the life in Michigan.

