

It was around the mid of April this year, I noticed an announcement which tells there is an offer for the senior students to visit the University of Tokyo in the coming summer. Since I have had one-year experience staying in the organomaterial lab and was planning to graduate from our department this year, I thought that could be a nice opportunity for me to go abroad and extend my experience to a different kind of laboratorial life. Though it took a little time for the two departments to connect to each other and get the final arrangement to us applicants, about one month before 7/11, we were finally informed that we got the chance to go to Prof. Hamaguchi's lab.

Based on the earliest version of information sent from Hamaguchi's lab, we could probably be assigned to have our small studying topic during the three-week visit. For a student like me, who have almost no any practical knowledge to advanced laser experiments, I was nervous that I could not readily get involved into the situation but have to spent time acquainting the operation. With this regard, I asked my friend, who is practicing in a physical chemistry lab, to tell me something about their laser system, I read the notes of basic optical instrument and ultrafast and high power laser, and we also asked Huang San to sent us some information (papers) of the recent work in Hamaguchi's lab. These preparations indeed help me a lot to grasp the idea when we listened to the work reports of lab members and watched them performing their experiments, though the three-week staying is too short for us to engage any topic, yet.

The ordinary life in this lab is well arranged and comfortable. The weekday usually begins with the group meeting in the morning in which professor gives the announcement about the coming days and some members present their work reports. There are two book-reading groups (with different progressions) discussing 《The Principles of Quantum Mechanics》 by P. A. M. Dirac. Someone gives a special talk in the seminar time, and occasionally, some visitor will be invited to give a speech in the lab. I always felt excited after the seminar and the discussion with the speaker after the talk also made me fruitful. People can study on their own seats and have discussion with the roommates. Usually they have lunch together and there is teatime for everyone in the common room.

The atmosphere in the lab is really soft. Everyone is polite and friendly. They are well-mannered toward each other. The greeting words come out so often from their mouth and in my memory, people there are usually happy and lively, and I did not see any petulance in the conversation in their daily life. They are patient to introduce their work or study to us; when we have naïve questions, they are also eager to explain it until we get everything clear. From the chatting with the lab members, the professor seldom make them feel great pressure. I very appreciate to the rose-colored environment of this lab since it is rare in Taiwan to have such kind of scientific research group; even though Taiwan is also an orient country just as Japan.

There are several laser sources assembled into around ten experimental systems. People have to design their own experimental setup first, and after that, they can start to use their specially designed setup to do the measurement. We are lucky to watch some persons doing their experiments: Shigeto San showed us his CARS setup, including the warm-up, cleaning, alignment, and measurement process in a very detailed manner. Shimada San showed us his hyper-Raman measurement. From his introduction, we knew that it is a simple but promising microscopic method. And the unexpected enhanced solvent band is also a novel discovery. Huang San showed us her Raman microscopy measurement. She explained the construction of this microscopy and carefully showed us the sample preparation. It is very fortunate of us, that we saw Kano San constructing a Raman spectroscopy for the visiting high school students. We saw how a measuring system to be set up from a bare optical table and Kano San also explained to us the usage of all those components in the spectroscopy. Though we did not participate into any experiment, we indeed learned a lot from their demonstration.

During this summer visiting, there are quite lots of activities. The InterOpto Exhibition is the first one. We saw numerous kinds of optical lenses, filters, fibers, transmitters, lasers, displays (and its panels), and also their applications on microscopy, etching, etc. in industry, medicine and biology fields. The exhibition is especially for experts in the field; on the other hand, the optoelectronic industry in Taiwan is not as prosperous as that in Japan, so it was the first time I can see so many devices out of laboratory and this tour brought me a great impact that I realized the environment in Japan is so great that almost any kind of research can have their immediately domestic resources.

A few days latter, the whole lab went to Izu for a three-day summer school, which is like a short vacation for relaxation. We lived at a dorm near a beach and people at free time can go to the beach for fun; we had every meal together and had a party at the second evening; and Prof. Hamaguchi took us to find the stag beetles. Yet, this is an informal studying activity that some members are asked to present their recent work, and the elder members were also had to give their report in English. The English presentation is not only a practice for Japanese students, but also a gift for us Taiwanese that we can conceive the talks from the slides and speaking as well. After the summer school, we knew more about the researches carried on in this lab in a relatively efficient way, and this three-day living together also made us got more familiar to all the members.

To our surprise, we also had the chance to attend the Conference on Medical Spectroscopy held in Hamamatsu. Because almost all the talks were given in Japanese, to tell the truth, we could only catch little information from the Chinese characters written in the slides. The situation became even worse if some reports were full of the

profession of medical field. However, thanks to the poster session, we could eventually talk and discuss directly to the post owner, and knew their interesting discovery. In the second day afternoon after the conference, we were invited to have a tour in Hamamatsu Photonics, I was impressed in their photosensors and got a great excitement about the PET lab. This conference in Hamamatsu seems like a very new one, since the number of participants is not large and researches shown in some posters (those not from Prof. Hamaguchi's lab) are at preliminary stage. Nevertheless, to initiate a new communication or conference is quit a difficult task that needs not only several volunteers but great amount of financial supports as well. In Taiwan, it is a little pity that this kind of private activity is mostly restricted within the semiconductor industry only.

If I have to say anything that I wish to be improved for the next year program, it could be the length and the schedule of the whole project. I believe the student must be so aggressive that he/she wants to seize the valuable chance to Tokyo University; however, a three-week staying is too short for an eager-to-learn student. Besides, because it is the first time interaction between the two departments in Tokyo and Taipei, the communication between each other is not efficient enough, thus makes a little uncertainty in our schedule. If the applicants and the lab can have more communications before they go to Tokyo, both groups will have a firmer plan and good preparations.

From 7/11 to 7/29, a nineteen-day trip to Prof. Hamaguchi's lab, it was still like a dream to me. I want to say thank you again, especially to Prof. Hamaguchi for providing this chance, Huang San for taking so much care about our living in Tokyo and you everyone for being so friendly to us and teaching us so much. Sincerely speaking, I hope that I can keep in touch with you, no matter we just share our life or scientific thought, and some day in some where we would meet each other again and talk as old friends.

With all my best care,
James

Yi-Lin Wu

Department of Chemistry

National Taiwan University, Taipei, Taiwan

e-mail b91203049@ntu.edu.tw ; wuil69@gmail.com