

The endeavor to the sustainable cooperation in the environment filed between China and Japan promoted by JSWE

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With the recommendation from the Chinese Society for Environmental Sciences and the support of the JSWE-IDEA International Exchange Award, I attended the 49th Annual Conference of JSWE held in Kanazawa from March 16-18, 2015. It is my great honor to be awarded and I thanks for all the support and help from both China and Japan sides.

My research filed is mainly focusing on biological nitrogen and phosphorus removal from wastewater, with consideration of the sustainable development of environmental technologies such as from the viewpoint of greenhouse gas emission. I joined the Graduate School at Shenzhen, Tsinghua University since May, 2010, and have been focusing on the above filed all the time. At present, water pollution control is still a tough task in China, and what we do is really important to help to improve water quality in both urban and rural areas.

During the annual conference, I gave the presentation about nitrous oxide emission during biological wastewater treatment, entitled "Sustainable biological nutrient removal from wastewater: mechanisms of nitrous oxide emission". With the development of society and urbanization, we are facing more and more serious environmental problems, such as global warming, water pollution and so on. Therefore, we have to deal with environment problems from an integrated viewpoint of sustainability. In the wastewater treatment, this means that we cannot transfer pollutants in the wastewater to another pollutant (such as nitrogen in the liquid to nitrous oxide in the atmosphere). During the study, we found that the aeration rate was an important factor controlling nitrous oxide emission during wastewater treatment in the multiple anoxic and aerobic process. In addition, possible mechanisms of nitrous oxide

emission were proposed. Wastewater treatment processes such as the multiple anoxic and aerobic mode, have been widely applied both in Japan and China. Our study could contribute to the further understanding this process from the sustainable viewpoint.

During the conference, I met lots of older friends and also make lots of new friends. Since I have worked in Shenzhen, I have made lots of Japanese friends both from universities and companies, especially through the symposium between environmental societies from China and Japan, and also through the Kyoto University-Tsinghua University Cooperative Research and Education Center for Environmental Technology. Several aspects have impressed me deeply during the travelling. The first is from the students. They are so kind and open-minded to explain their research results, which is really a good characteristic for scientific work. The second is the humor of Japanese. Most of the time, the serious attitude had been deeply implanted in my heart. However, this travelling has changed my impression about Japanese deeply. The last one is the culture spreading. In the city of Kanazawa, such as the architecture and also the river rehabilitation, every details can be a culture spreading media. This is really a sustainable approach to spreading our culture richness from one generation to another.

I am happy that I have known that lots of people have endeavored to advance the relationship between China and Japan. Many thanks for your effort all the time. I hope that both now and in future, I can join in this team and contribute myself to advance the communication and cooperation between China and Japan, especially in the environmental field.