

## **Report about Research Stay at Shandong University**

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Concerning: Research stay (07.05.2018 – 28.05.2018) supported by the U5 Strategic Partnerships Scholarship

**Date:** June 9, 2018

Thanks to the support of U5 Strategic Partnerships Scholarship, I got the golden opportunity to have a fruitful research stay lasting 3 weeks during May 7<sup>th</sup> to May 28<sup>th</sup>, 2018 in Professor Lijie Ci's research group in School of Materials Science and Engineering at Shandong University (SDU), in Jinan, China.

I was glad that weeks before my arrival Professor Ci helped me to build contacts with Ms. Qiong Chen and Ms. Yuyan Wang at Shandong University, the PhD student and the assistant of Professor Ci, respectively, who provided me with many useful information and all the necessary paperwork as well as helpful hints for traffic and accommodations for my stay in Jinan. Upon arriving in Jinan I met Qiong and Yuyan, and they helped me to settle down and get familiar with their campuses during the first two days of my stay. I visited Professor Ci's labs, which are located on different campuses of Shandong University. The lab-tour was guided by Qiong, she gave me a detailed introduction to the current major research topics of Professor Ci's group and how their experimental set-ups and instruments work in their labs. Qiong is also my direct partner of our collaborating project. Before I visited SDU, she had posted me some materials she synthesized for my study on infrared absorption spectroscopy. The materials performed very well in my experiments, and the inspiring results were almost enough for writing a joint research paper. However, I knew little about the materials information, which hindered the manuscript writing. Fortunately, I got some perfect chances to discuss our work with Qiong and Professor Ci face to face during this research stay. It must be mentioned that face-to-face discussions were indeed much more efficient than communicating *via* sending emails as we did before. I described

my experimental procedures and presented meaningful results in detail, and afterwards they also demonstrated the synthesis procedure and characterization of the corresponding materials I tested in Ulm. We had meaningful and constructive exchanges of ideas, thoughts, and opinions on our present work and potential collaborations. Some doubts and ambiguities were finally resolved. Moreover, with the permission of Professor Ci and the assistance of Qiong and some other group members in the host institution, for the first time, I tried to synthesize some more materials by myself. Coming from a background of analytical chemistry (particularly spectroscopy), I rarely had a chance to get to know a complete procedure of preparation, synthesis, separation and purification of materials, which really took a great deal of time and effort. Through this first-hand experience, I have got much more familiar with the materials I used.

Throughout my research visit, I had full access to the laboratories of the institution. The laboratory colleagues thoroughly showed interest in my research topic by fruitful discussions and suggestions from a professional point of view. With different research background, we are complementary in many aspects, so we had a lot to learn from each other. The expertise of the whole research group in material synthesis and the excellent working conditions have stimulated a fresh sense of inspiration for my future research. What's more, all group members were always patient and friendly, and did their best to make me feel welcome in Jinan. Definitely, my stay in SDU was really a wonderful experience, promoting the communication between our two institutions.

Last but not least, I would like to say a massive thankyou to my home institution Ulm University and DAAD for financial support and to my supervisor Professor Boris Mizaikoff for encouraging me to take part in this project. Thanks a million to Ms. Elena von Klitzing and Ms. Veronika Ansorge for helping me in the scholarship application process. I am also very grateful to all persons in the host institution especially Professor Lijie Ci, with whom I have had great pleasure to work during my stay.