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Field Report

To whom it may concern:

I am a PhD student at the University of Innsbruck. Our workgroups research is focused on the understanding and utilization of helium nano droplets as an ultra-cold and inert matrix environment. We investigate the properties of those droplets and how one can manipulate those to produce cluster complexes with certain characteristics. Our investigative methods include mass spectrometry, action spectrometry and messenger type spectroscopy, which allow us to probe the size distribution of charged cluster complexes, find stable ion cluster configurations and investigate micro solvation of charged clusters. The support of the Marshall Plan Foundation allowed me to connect to the group of Prof. Vitaly Kresin at the University of Southern California, who uses different methods to utilize helium nano droplets to investigate the dopants within them. Prof. Kresin measures the deflection of doped helium droplets induced by an enharmonic electrical field. This in combination with Monte Carlo simulations allows the determination of the electrical dipole moment of complicated neutral molecules.

The time I spent in Los Angeles was an interesting experience and a very important one. Especially if one is considering a Post Doc in the near future. It was enlightening to experience how research is conducted in a different group. But the most important aspect of the stay abroad was the networking, which was facilitated by my host. I connected too many other scientists and enjoyed various discussions with researchers from different fields of expertise. The host gave me ample opportunity to look into other projects and study things that peaked my interest, even though I had a tight schedule to keep our planned goals on route. The planned research did not play out as intended, as we had to tackle through some problems with the experimental setup, but the intense work with an unfamiliar experiment helped me to further increase my engineering skills.

The Institute hosted several high profiled colloquiums and extracurricular activities. Including a trip to Catalina, an island 30 miles off the coast of Los Angeles. The Staff and Students of the institute were very welcoming and helped me to feel at home right away. The Institute combined with the Office for International Students offered more activities one could possibly attend. The letter one also offers contact with other foreign students and help with organisational stuff in case you need it.

It was a great stay which offered more than just doing research. The LA area is a very interesting place with impressive cultural diversity and wonderful natural environment.

Emphasizing the fact, that I really enjoyed my stay and would decide to do it again in a heart beat. There are some things to keep in mind when planning your stay, which I would do differently today.

First and foremost stay as long as possible, my stay was too short. Considering the huge effort with the administrative work and with which ease an experiment can be delayed I should have stayed twice as long.

The second thing I have to mention is how hard it is to find affordable accommodation in LA. Especially if you do not want to commute (In order to buy a car in California you have to have a Californian drivers licence!). This is even more difficult because most flats are rented out on short notice and require a personal interview.

In retro perspective all this complications do not outweigh the benefits of my time abroad. I am still in contact with the group of Prof. Vitaly Kresin and hopefully will continue to collaborate with them even after the project we started while I was visiting is finished.

I would fully recommend the University of Southern California as a destination to visit with a Marshall Plan Scholarship.

I like to thank the Austrian Marshall Plan Foundation for the financial support that gave me the opportunity to visit the University of Southern California. I also want to thank Vitaly Kresin and Paul Scheier for their support.

Yours sincerely,

Lorenz Kranabetter