

Germans support move from basic to applied research in Chile

Dr. Patricio Toro Estay of the University of Chile, Department of Chemical Engineering and Biotechnology, Santiago de Chile in Chile visited Fraunhofer IWS in Dresden, Germany.

What have you worked on during your visit?

In the Fraunhofer IWS-Dresden I have learned about large scale production of Carbon Nanotubes (CNT), in particular Single Wall Carbon nanotubes (SWCNT). It was possible to functionalize the SWCNT and also the Multi Wall Carbon nanotubes (MWCNT) and characterise their physical chemistry properties. Furthermore it was possible to prepare nanocomposites in epoxy polymer matrix and determine their mechanical tensile properties.

Why is that important for your research and for progress in nanotechnology?

The development of new polymer nanocomposites is critical for application in many future engineering applications. Accordingly our research work is focused in the elaboration of nanocomposites considering the incorporation of nano reinforcements such as the MWCNT in a polymer matrix.

Why did you come to this European research centre to do this project?

The IWS-Dresden has relevant and advanced expertise in nanotechnology making them a good partner for our continued development in this field.

What are the results? How will you disseminate them?

The obtained experience is important for our research work and will be considered in the current work in Chile. Combined with further research, it is possible to prepare publications in the scientific journals and also for Congress participations.

Is this the first contact between both organizations or is your visit part of existing collaboration?

This visit to Fraunhofer IWS-Dresden was the first contact and no collaboration existed before this program.

What are the plans for future collaboration?

The contact with the scientific group in IWS during this visit will be an important basis for develop new collaboration in the future.

Do you intend to apply for funding in the EU 7th Framework Programme for RTD?

This possibility will be considered in order to maintain contacts in Europe in the future with the visited research Institutions or other similar Institutes in the future.

How may your project in the long term benefit the development of your country or Latin America in general?

The scientific work related with the development of nanomaterials in our research Institutions in Chile has increased in the last five years but there are few relations with industrial production. The real contributions for our country's development will be possible with new orientation of the activities of the staff in the research Institutions. Our recent experience in Europe during the visit at Fraunhofer IWS-Dresden and maintaining contacts with foreign Institutions which can transfer knowledge relevant to the industrial area could be a great help to enhance this area in our academia-industrial relations.

What are your plans for disseminating the results of your visit outside the research community in your country?

Find ways to participate in the media outside the university within our country and in particular find contacts with the industrial area to disseminate our gained experience in the nanomaterials development.

Identification:

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