

The international crystallization schools "IS(B)C" of granada

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Crystallization plays a key role in most chemical, physical and biological fields and is exploited today in thousands of applications, from production of fine chemicals, pharmaceuticals, new materials or food ingredients to that of diffraction-quality crystals of both small molecules and macromolecules for structural determination. The International Crystallization Schools (ISBC and ISC), auspiced by the IUCr, are designed for postgraduate and post-doctoral students as well as research scientists from academy and industry that deal routinely with crystallization but seek knowledge of fundamental aspects of the crystallization phenomenon, the behaviour of crystallizing solutions, the control of physical and morphological properties of crystals or, simply, the most adequate crystallization techniques. The ISC focuses on the applications to the fields of pharmaceutical compounds, foods, agrochemicals, minerals and new materials while the Biological Crystallization School (ISBC) focuses on crystallization of biological macromolecules, biominerals and biomimetic materials. The event takes place at downtown of the beautiful city of Granada, an ideal place to promote close scientific and social interactions among the attendees. Both schools have been held since 2006 in alternate years the last week of May. In the five editions of each School more than 700 students from 25 countries of four continents, have been immersed into the crystallogenesis world by more than 25 experts per edition.

The most distinctive characteristic of Granada' Schools is the Demonstrations Fair, a practical training session, organized in an innovative and lively format. During the fair a number of stands offers the opportunity of attending short (20-40 minutes) practical demonstrations ranging from atomic force microscopy characterizations to crystallization in gel, carried out by specialists at scheduled times during a full day. The students are free to arrange their own demos-programme. The second most important feature is the poster sessions that are held each day and that turn out to be a very valuable time in which students discuss their results with teachers. This interaction ends the last day with the oral presentation of the selected posters, awarded during the closing ceremony. The social program, also very much appreciated by the participants, allows students to interact with teachers in more informal way when walking during the night tour to the Moorish palaces of the Alhambra or at the flamenco party in the Arab district of the Albayzin.

The Demonstration Fair of the International Crystallization Schools of Granada is a very demanding event in terms of organization and working task. It needs every year to move a large number of laboratory apparatus from our Laboratorio de Estudios Cristalográficos to the Hotel at the downtown of Granada. Then, we need to organize there -in just five hours- more than twenty ready to use mini-labs-stands with everything needed for hand-on teaching. Our experience to prepare space missions from Cape Cañaveral to Baikonur was precious at the beginning. But most important is the help and skill of many students and co-workers during the last years, especially Dr. Luis Gonzalez-Ramirez, Dr. Duane Choquesillo, Dr. Alfonso García-Caballero and Dr. Cristobal Verdugo.

A view of the Demonstrations Fair carried out at the Crystallization Schools of Granada



Keywords: [crystallization schools](#), [demonstrations fair](#), [posters exhibition](#)