

Poster Presentation

MS113.P07

National crystal growing competition in Uruguay: three years of success.

Leopoldo Suescun¹, Ivana Aguiar¹, Natalia Alvarez¹, Miriam Barros¹, Isabel Galain¹, Romina Keuchkerián¹, Maia Mombrú¹, Ivana Núñez¹, Guzmán Peinado¹, Mauricio Rodríguez²

¹Facultad De Química, Universidad De La República, Montevideo, Uruguay, ²Centro Universitario Regional del Este, Universidad de la República, Rocha, Uruguay
E-mail: leopoldo@fq.edu.uy

During the IYCr-2014 Uruguay held its First National Crystal Growing Competition (CNCC – Concurso Nacional de Crecimiento de Cristales). The competition was organized by an interdisciplinary group within the Facultad de Química, Universidad de la República (School of Chemistry, University of Uruguay) which continued the work throughout 2015 and 2016.

The contest's main objective, aligned with that of the International Crystal Growing Competition, is to reach-out to the community, increasing public awareness of science in general and crystallography in particular, and encouraging young people to participate in scientific activities. Participation of young students from primary and secondary level education and social institutions was especially encouraged. Growing a crystal garden (for ages 6 to 12) or single crystals (for ages 13 to 18) within a 5-week time frame, with the guidance of a trained tutor, were the main rules imposed to participants. For the first two years tutors participated in hands-on training workshops dictated by the organizing group in over 30 different locations across the country, whereas in 2016 we were able to produce audiovisual material available on-line [1] and distributed an Spanish-translation of chapters 7 and 8 of the book "Cristalografía: La visione a raggi X" [2] to replace face-to-face workshops. Participants sent their crystals/gardens to Facultad de Química for evaluation by a panel of experts (including a former Dean and retired Prof. of Crystallography). In 2015 and 2016 the crystal/garden was accompanied by a 3-minutes video record of the process. This video was expected to be suitable to be sent to the International Crystal Growing Competition organized by the IUCr where one mention (2014) and two prizes (2015) were obtained [3].

Winning teams received a variety of prizes and mentions ranging from tablets for secondary school students to crystal growing kits for primary schools. For high school participants the first prize is a hands-on activity named "Chemist for one day", where they are introduced to organic and inorganic synthesis and characterization techniques including single crystal and powder X-ray diffraction. During the three years the competition we reached more than 2000 participants and over 100 institutions, including schools, high-schools, social aid and pleasure clubs and a youth detention center. Every year the finalists with their tutors got together on a closing ceremony where they shared their experience with the organizers, their families and close friends.

The three editions of the CNCC obtained funding from local agencies and institutions ANII (PR_PCTI_2014_14131), PEDECIBA (2014-2015), CSEAM-UdelaR (2014-2016) and Facultad de Química (2014-2016) and donations from Droguería Uruguay S.A. (2014) and PERRIN S.A. (2014-2016). The availability of funding has been irregular and the difficulties to fund the 2016 edition took a toll in the number of participants (~60 groups) that decreased significantly from 2014 and 2015 editions (~200 groups each year). Even though this has been honorary work and there are difficulties to sort-out, so far the experience has been a very positive success and we plan on continuing it in 2017 and beyond.

[1] <http://www.cncc.fq.edu.uy/>

[2] S. Galli, M. Moret & P. Roversi (2014) "Cristalografía. La Visione a Raggi X"

[3] <http://www.iycr2014.org/participate/competition-winners/2015-winners>



Keywords: [crystal growing competition](#), [Uruguay](#)