



Attendees of the IYCr OpenLab in Uruguay in front of the newly installed D8 VENTURE

Students from across Latin America attended the Bruker supported OpenLab, in Montevideo, Uruguay. This 9-day school was organized by Leopoldo Suescun (Facultad de Química, Universidad de la República) as part of the global IYCr activities. The school had a strong focus on single-crystal X-ray diffraction (SC-XRD) and took advantage from the brand-new D8 VENTURE. Beforehand, students were encouraged to bring real examples from their laboratories.

Claude Lecomte (vice president of the IUCr), Leopoldo Suescun, Ricardo Faccio, Alvaro W. Mombrú (Universidad de la República), Javier Ellena (IFSC-USP Sao Carlos, Brasil) and Bruce Noll (Bruker) provided intensive training covering the whole range from the principles of diffraction to practical aspects of the experiments. This enabled students to successfully perform the complete 3D structure determination on their own research samples. Every student who brought crystals left with data and some indeed presented their challenging crystals, often those not susceptible to a successful analysis on the instruments installed at home. Many of the weakly diffracting samples indeed required the intensity of the $1\mu\text{S}$ microfocus X-ray source. All made advantage of the shutterless operation of the PHOTON 100 detector and the most efficient data collection. With skills learned during the workshops, the students were able to analyze and refine the data using APEX2. In the end, students and the faculty left newly impressed about modern instrumentation's possibilities and the fascinating science of crystallography:



IYCr OpenLab

- "I discovered a great new world of possibilities"

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Crystallography

Innovation with Integrity

The OpenLab logo features a large red circle with a white outline, surrounded by several smaller red dots of varying sizes. To the right of this graphic, the text "IUCr-UNESCO" is written in a black, sans-serif font, and "OpenLab" is written in a large, red, sans-serif font.

Lorena M. : "The course [...] was a very good experience. [...] it was great [to have] the possibility of actually do the whole process of measuring and refining by ourselves, I mean, setting up the whole experiment with our own hands. This wouldn't have been possible without the help and almost infinite patience of Bruce Noll (I take this opportunity to express my gratitude)"

Guzmán P.: "It also was a great deal to have let everyone measure their own crystals on a diffractometer which was installed just one week before the OpenLab, and the help we received from Leopoldo and Bruce to work up our data was extremely useful. In particular, Bruce did an extensive, dedicated and always energetic job during the OpenLab. He never had any problem whatsoever to help anyone with anything, and he was very thorough by teaching me and my colleagues how to use the Bruker diffractometer and the APEX2 software [...]"

Lisandro O.: "As student of the course I can tell you that the experience was really rewarding. Everything was perfect and one could feel that nothing was done at random. I really enjoyed being part of it. [...] We recently bought a diffractometer D8 QUEST from Bruker and are solving difficult protein structures in-house, that is why we are really happy with the equipment. "

Ivana A.: "I enjoyed the OpenLab much [more] than I had thought in the beginning. I was not very familiar with Single Crystal X-ray Diffraction. So far I always worked with powder. I discovered a great new world of possibilities, and I realized that there are many things that I can do and I did not know. Besides, the professors were available at any time during a whole week, and they were really helpful. It is not easy to have this kind of assistance in a so personalized way. Although the course was a bit exhausting, I would strongly recommend it to my colleagues. It is worth it!"

