



Italian Society of Mineralogy and Petrology

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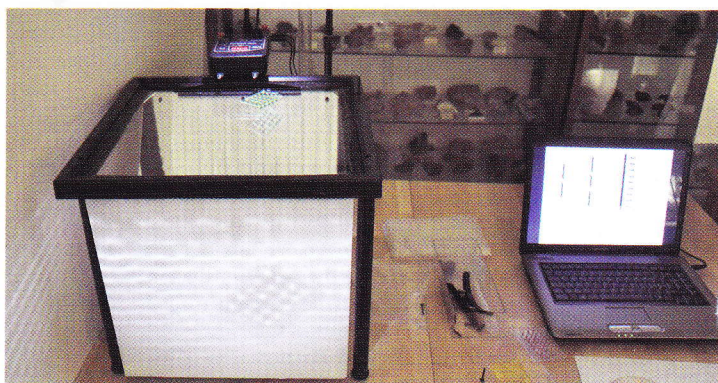
LAUE DAY IN ITALY: DECEMBER 12, 2012



Two examples of posters advertising Laue Day

Near the end of 2012, the informal Italian group Gruppo Nazionale di Mineralogia (GNM) promoted an event aimed at celebrating the centennial of Max von Laue's discovery of X-ray diffraction in crystals. The event was called Giornata Laue ("Laue Day") and was planned to be held simultaneously in a variety of universities all over Italy and to be open to high school students. The event was devoted to the scientific explanation of the principles and application of X-ray diffraction, with emphasis on the importance of crystallography and its impact on society. The selected day was December 12, 2012 (12/12/12).

A committee of eight GNM members from various universities (Elena Bonaccorsi, Pisa; Cristina Carbone, Genova; Franco Frau, Cagliari; Annalisa Martucci, Ferrara; Fabrizio Nestola, Padova; Emanuela Schingaro and Gennaro Ventrucci, Bari; Michele Zema, Pavia) was appointed to prepare a PowerPoint presentation to be used for delivering the same lecture in the different venues where Laue Day was held. The presentation was entitled "1912–2012: Un secolo di onde e cristalli – La scoperta di Max von Laue: la diffrazione dei raggi X nei cristalli" ("1912–2012: A century of waves and crystals – The Max von Laue discovery of X-ray diffraction in crystals") and was made available through the GNM website. It was aimed at a nonspecialist audience and covered the historical aspects of the Laue experiment, the physics



A ripple generator with a strobe light source used to show different kinds of wave patterns and their interactions

and instrumentation of X-ray diffraction, and the effect the discovery had on the development of mineralogy, chemistry, molecular biology, materials science, and Earth science.

Ten universities participated in the initiative: the universities of Bari, Cagliari, Genova, Modena, Napoli, Parma, Perugia, Pisa, Roma La Sapienza, and Torino. In most cases, the GNM PowerPoint presentation was followed by guided visits to museums of mineralogy and laboratories of crystallography, where available. In museums, educational itineraries with posters, exhibitions of old X-ray instrumentation, optical benches, ripple generators, etc., helped the students to familiarize themselves with the phenomenon of "diffraction," whereas in crystallography laboratories, modern X-ray instrumentation was shown and experiments were carried out. In other cases, Laue Day was organized as a one-day workshop, with a cycle of seminars in the morning and practical activities in the afternoon.



Introducing Laue Day before a large audience at the University of Parma

About 1700 high school students attended Laue Day. Enthusiastic comments from the students and their teachers were posted on the local organizers' Facebook pages or sent by e-mail; several requests for further editions of the initiative were received.

Laue Day was intended by GNM and the local organizers as the first of a series of educational events that, under the aegis of SIMP, AIC, and IUCr, will promote the dissemination of crystallographic culture. The culmination will be in 2014, declared by the United Nations as the official International Year of Crystallography. Laue Day is the most recent of many successful events promoted by GNM (visit their website at www.socminpet.it/GNM). It is also the last event organized by the outgoing president, Gabriella Lucchetti (University of Genova), and the outgoing Board of Directors (Fernando Cámara Artigas, Franco Frau, Francesco Princivalle, and Emanuela Schingaro). Special thanks and congratulations go to Gabriella Lucchetti for her tireless and efficient dedication to the task of promoting mineralogy through GNM's activities, in both its specific and its interdisciplinary aspects. Best wishes go to the new president, Francesco Princivalle, and the new Board of Directors (Giovanni Andreozzi, Paola Comodi, Marco Pasero, and Gabriella Salviulo), in anticipation of successful and exciting GNM initiatives in the three years to come.



(LEFT) Students visiting the mineralogical section of the Earth science museum at the University of Bari. (RIGHT) Presentation of the lecture "1912–2012: A century of waves and crystals" at the University of Perugia