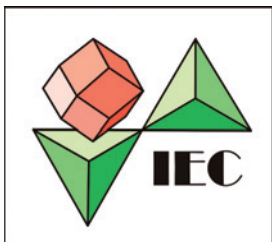


## 10<sup>th</sup> INTERNATIONAL ECLOGITE CONFERENCE, COURMAYEUR, ITALY



The 10<sup>th</sup> International Eclogite Conference (IEC) was held on 2–10 September 2013 in Courmayeur, a lovely town in the Aosta Valley, Italy, in the heart of the western Alps. The conference drew 126 participants from 21 countries on 6 continents. The meeting was skillfully organized by Professor Daniele Castelli, with much help

from eclogite aficionados Simona Ferrando, Chiara Groppo and Franco Rolfo, and from Professor Emeritus Roberto Compagnoni, Department of Earth Sciences, University of Turin, Italy. Abstracts, field trip guides and additional information about the conference are accessible at [www.iec2013.unito.it](http://www.iec2013.unito.it).

Field trips are the essence of the eclogite conferences, and this meeting was stellar in its inclusion of classic localities with new twists. Highlights included the pre-meeting trip to the ultrahigh-pressure oceanic terrane at Lago di Cignana to examine impure quartzites with garnet containing diamond-bearing fluid inclusions. The rocks are within view of a café, and chances are that hundreds of geologists walked past these special rocks on their way to get an espresso, before Maria Luce Frezzotti and co-workers reported on the microdiamonds in *Nature Geoscience* in 2011. Frezzotti was on hand to tell us about the discovery. The protoliths at Lago di Cignana may have originated in a pre-Alpine, hyperextended margin, similar to the “zone of exhumed subcontinental mantle” visited at the Petit St. Bernard Pass on the second day. The syn-conference trip to see and collect the beautiful Sesia Zone glaucophane eclogites was augmented by the new work of Martin Engi’s group at Bern University. Participants visited the “green granite” with preserved jadeite + K-feldspar + phengite at the Argentera quarry in Settimo Vittone, where everyone received a polished slab as a souvenir. The post-meeting trip included a hike to the overturned eclogite facies ophiolite on the lower flanks of Monviso and a pilgrimage



Aggregate of small (50–300  $\mu\text{m}$ ), manganiferous garnet crystals intergrown with biotite, in phengite-bearing quartzite from Lago di Cignana, Zermatt-Saas ultrahigh-pressure unit, Valtournenche, Italy. Individual garnets contain microdiamond inclusions and diamond-bearing fluid inclusions. View is 10 cm wide. PHOTO BY J. GILOTTI



Marco Beltrando, research fellow at the University of Turin, explaining the pre-Alpine contact of continental basement with ultramafic rocks in the area of the Petit St. Bernard Pass, with Mont Blanc clearly visible in the background. PHOTO BY B. MCCLELLAND

to the famous pyrope quartzite of the Dora-Maira massif, escorted by Po River Park authorities. Remarkably, the sun shone on every excursion, treating the participants to fantastic views of Mont Blanc, the Matterhorn and Monviso.

Three days of the meeting were dedicated to 48 talks and 87 posters. Sessions were organized around the topics of micro- to nanostructures, high- and ultrahigh-pressure fluids, pressure–temperature–time–deformation paths, and the geodynamics of eclogite terranes. The invited speakers—Larissa Dobrzhinetskaya, Jacques Touret, Horst Marschall, Maya Kopolova, Bradley Hacker and Peter van Keken—each introduced one of the technical sessions. A number of presentations addressed the uses of in situ analytical techniques, such as oxygen isotope analysis of geochronometers, to understand the evolution of fluids that are essential to zircon growth, for example. The role of fluid in the growth of microdiamonds and in the transformation of diamond to graphite were emphasized. Geodynamic issues related to intermediate-depth seismicity in subduction zones and to the contribution of subduction to the spatial distribution of eclogite in the cratonic mantle figured prominently. The student presentations at the meeting were of excellent quality. Many utilized compositional mineral maps together with isochemical phase equilibrium diagrams, which were elegantly presented with the free software XMap Tools, developed by Pierre Lanari. The award for the best student poster went to Lorraine Tual (Lund University, Sweden), and the best student talk was given by Thais Hyppolito (University of São Paulo, Brazil).

Planning for the 11<sup>th</sup> IEC is underway. The meeting will be held in the Dominican Republic in early 2015 and will be organized by Hans-Peter Schertl and Walter Maresch, Ruhr-University Bochum, Germany.

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