

10th URA International Seminar

Date: Friday 5th January 2018

Time: 14:30-16:30

VENUE: 50th Anniversary Hall Conference – Room (2nd Floor)

Understanding the beauty of crystal structures: A no frontier review over the ages and Importance of exchanges on the progress of knowledge

The discovery of the origins of minerals and crystals shapes, and ultimately the discovery of their atomic structure, was the result of a long series of experiments and debates. Each of them contributed in improving the initial understanding of X-rays nature, then of the atomic organization within crystals and matter.

In a similar way, in the 17th century, the surprise of the "diamond which evaporates" initiated a multitude of questions and works on diamond and carbon phases. Those efforts ultimately lead to the discovery of the origin of diamond, of its atomic structure and also of its possible synthesis by researchers !

Nowadays, modern crystallography is extended to the study of very small crystals and poorly-ordered materials. It also relates crystal structure to physical-chemical-biological properties. Such developments opened up crystallography to biology, to artificial materials like nanostructures and to materials of the "real world". All those examples underline the key role of exchanges and controversial discussions between researchers.

NB: The talk is for all audiences including students.

Advance registration:

(The participation is free of charge, but the registration would be required for the convenience of preparation.)

Co-organized by

Global Science Campus in Okayama
Educational Center for Researchers
of the Next Generation



岡山大学大学院
自然科学研究科
GRADUATE SCHOOL OF
NATURAL SCIENCE AND TECHNOLOGY
OKAYAMA UNIVERSITY

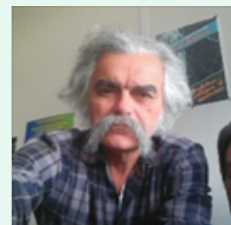
<http://www.science.okayama-u.ac.jp/sakidori/>

<http://ura.okayama-u.ac.jp/> <https://www.gnst.okayama-u.ac.jp/>

SPEAKER

Dr. Jean Louis HODEAU
Directeur de Recherche
CNRS, (Senior researcher)

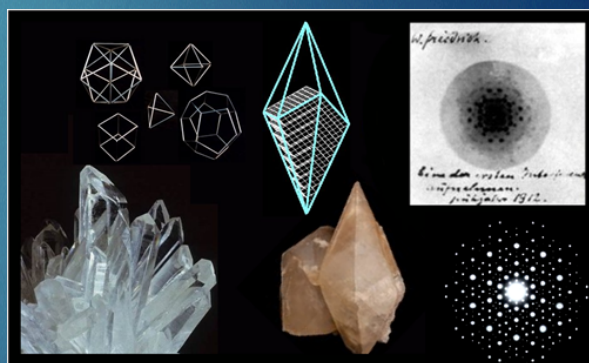
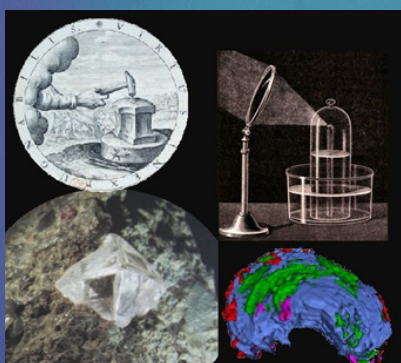
Short BIO: Professor HODEAU's research focuses on the interplay between physics and chemistry: the relationship between structure and physical properties. To reach his goals, he combined several traditional structural methods and developed new ones. A specificity of his studies is to develop original methods using several unique characteristics of synchrotron beams available at ESRF, the European Synchrotron Facility in Grenoble – France. This allowed a range of studies of heterogeneous materials by contrast analysis. Detailed investigations of cultural heritage materials, visualization of C60 carbon transformations in polymerized phase either in graphite or in diamond could be performed.



In addition to his research work, Professor HODEAU is strongly involved in scientific knowledge dissemination activities. A major achievement in the field, is a mobile exhibition initiated with the Grenoble Museum and then developed for the World Year of Physics in 2014 : the exhibition titled "Journey into the Crystal" focuses on the discovery of crystals and crystallography. It has been translated into 10 languages for a range of countries: <http://www.iycr2014.org/resource-materials/travel>

In 2018, the Exhibition reaches Japan and Okayama as a first step.

He has also contributed to the creation of the site "Krystallopolis.fr" which is aimed at all audiences with different levels of reading. Its goal is to surprise the public with the discovery of crystal and materials in order to illustrate science in daily life: <http://www.krystallopolis.fr/>



[Inquiry]

Bernard CHENEVIER
Senior URA, Okayama University
bernard-chenevier@cc.okayama-u.ac.jp

Takayoshi SUZUKI
Professor, The Graduate School of Natural Science
and Technology Okayama University
suzuki@okayama-u.ac.jp