9th CrysAC workshop on
“Bio-Apatite, humans, archaeology and environment”
Department of Geosciences, University of Padova
Via G. Gradenigo 6, 35131 Padova, Italy
Tuesday, 17th September 2024

Chairs: Gilberto Artioli (CrysAC past-Chair), Elisabetta Boaretto (Weizmann Institute of Science)
Organizing Committee: Gregorio Dal Sasso (Consiglio Nazionale delle Ricerche CNR-IGG), Yotam Asscher (University of Haifa), Lior Regev (Weizmann Institute of Science)

9.00 Opening Gilberto Artioli, CrysAC past-Chair
Elisabetta Boaretto, Chair (Weizmann Institute of Science)

9.30 - 10.00 Daniel Harlov (GFZ Helmholtz Centre, Potsdam)
“Apatite: A mineral for all seasons”

10.00 - 10.30 Henrik Birkedal (Aarhus University, Denmark)
“Bone apatite hierarchical structure”

10.30 - 11.00 DISCUSSION + BREAK

11.00 - 11.30 Mailys Richard (CNRS, Bordeaux)
“Investigating tooth diagenesis using cathodoluminescence, infrared spectroscopy: implication for radiometric and trapped-charge dating”

11:30 - 12:00 Gregorio Dal Sasso (CNR-IGG) and Yotam Asscher (Haifa University)
“Bone apatite: microstructure, crystallinity and defects”

12.00 - 12.15 DISCUSSION

12.15 - 13.30 LUNCH

13.30 - 14.00 Steve Weiner (Weizmann Institute of Science)
“Bone Structure and Macromolecule Preservation”

14.00 - 14.30 Ina Reiche (C2RMF, Ministère de la Culture, Paris)
“Apatite in museums. From ivory objects to restoration treatments”

14.30 - 15.00 DISCUSSION + BREAK

15.00 - 15.30 Christophe Drouet (CNRS-University of Toulouse)
“Bone apatite: chemical composition, structure, and synthesis of synthetic analogs”

15.30 - 16.00 José Manuel Delgado-López (Universidad de Granada)
Biomimetic nano-apatite: eco-friendly nanotechnology for more sustainable agricultural practices”

16.00 - 16.30 DISCUSSION
“Carbonates, humans, archaeology and environment”

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9.00  Opening  Steve Weiner (*Weizmann Institute of Science*)
9.10 - 9.40  Emma Cantisani (*CNR-ISPC*)
             “Multi-analytic approach for evaluating the origin of calcite in ancient mortars”
9.40 - 10.10  Michael Toffolo (*Centro Nacional de Investigación sobre la Evolución Humana CENIEH*)
              “Insights into the crystallinity of calcite based on Raman line widths”
10.10 - 10.50  DISCUSSION + BREAK
10.50 - 11.20  Mariaelena Fedi (*LABEC - Weizmann Institute of Science*)
               “Dating calcite from mortars: technical aspects when dealing with very small carbon samples”
11.20 - 11.50  Elisabetta Boaretto (*Weizmann Institute of Science*)
               “Carbon isotopes in archaeological carbonate: do they contribute to understanding formation processes and diagenesis”
11.50 - 12.15  DISCUSSION
12.15 - 13.30  LUNCH