

7th CrysAC workshop on

“Bio-Apatite, humans, archaeology and environment”

Benozio Auditorium, Weizmann Institute of Science, Rehovot, Israel
Sunday November 19th, 2023

Chairs: Gilberto Artioli, CrysAC past-Chair, Elisabetta Boaretto, Weizmann Institute of Science

Organizing Committee: Gregorio dal Sasso, 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 (<i>Potsdam</i>) “Apatite: A mineral for all seasons”
10.00-10.30		Henrik Birkedal (<i>Aarhus University, Denmark</i>)(web presentation) “Bone apatite hierarchical structure”
10.30-11.00		Discussion + Break
11.00-11.30		Maily Richard (<i>CNRS, Bordeaux</i>) “Investigating tooth diagenesis using cathodoluminescence, infrared and Raman spectroscopy: implication for radiometric and trapped-charge dating”
11.30-12:00		Gregorio Dal Sasso (CNR) 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 (<i>Weizmann Institute of Science</i>) “Bone Structure and Macromolecule Preservation”
14.00-14.30		Ina Reiche (<i>C2RMF, Ministère de la Culture, Paris</i>)(web presentation) “Apatite in museums. From ivory objects to restoration treatments”
14.30-15.00		DISCUSSION + Break
15.00-15.30		Christophe Drouet (<i>CNRS-University of Toulouse</i>)(web presentation) “Bone apatite: chemical composition, structure, and synthesis of synthetic analogs”
15.30-16.00		José Manuel Delgado-López (<i>Universidad de Granada</i>) “Biomimetic nano-apatite: eco-friendly nanotechnology for more sustainable agricultural practices”
16.00-16.30		Discussion + break
16.30-17.30		Student presentations

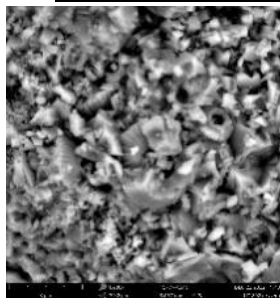


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“Carbonates, humans, archaeology and environment”

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Monday November 20th, 2023

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| 9.00-9:10 | Steve Weiner , Weizmann Institute of Science |
| 9.10-9:40 | Leor Kronik (<i>Weizmann Institute of Science</i>)
“Understanding infrared spectra of minerals with density functional theory” |
| 9:40-10:10 | Michael Toffolo (<i>Centro Nacional de Investigación sobre la Evolución Humana (CENIEH)</i>)
“Insights into the crystallinity of calcite based on Raman line widths” |
| 10.10-10.50 | Discussion + Break |
| 10:50-11.20 | Assaf Gal (<i>Weizmann Institute of Science</i>)
“Intracellular formation and extracellular modification of biogenic calcite in the ocean” |
| 11.20-11:50 | Elisabetta Boaretto (<i>Weizmann Institute of Science</i>)
“Carbon isotopes in archaeological carbonate: do they contribute to understanding formation processes and diagenesis” |
| 11:50-12.15 | Discussion |
| 12.15-13.30 | Lunch |
| 16:00-18:00 | Special Guided Tour of Old Jaffa |



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