

Workshop “Bringing the Sea to Berlin” 19 to 21 June 2023

DAY 1 / 19 June 2023 (Monday)		
13:00 - 14:00	Registration	KINO Foyer
14:00 - 14:30	OPENING REMARKS - Tali Mass, Antje Vollmer & Paul Zaslansky	KINO
14:30 - 15:30	SESSION I: Marine science meets Synchrotron science / Overview	KINO
14:30 - 15:00	Peter Fratzl Synchrotron studies of multiscale biomaterial behaviour	
15:00 - 15:30	Gert Weber Global plastic pollution and routes towards a sustainable circular economy for synthetic polymers	
15:30 - 17:10	SESSION II: Marine questions / Part I	KINO
15:30 - 15:50	Jaroslav Stolarski The so-called pristine preservation of fossil carbonate biominerals: myths and facts	
15:50 - 16:10	Igor Zlotnikov Dynamics of topological defects and structural synchronization in forming nacre	
16:10 - 16:30	Tobias Primel Multiscale correlative imaging of mussel byssus fabrication	
16:30 - 16:50	Stuart Stock Micro- and nanostructure of the mineralized centra of shark vertebrae	
16:50 - 17:10	Hadar Shaked Inhomogeneous Mg distribution within high Mg bearing mineralized tissues	
17:10 - 17:30	Coffee Break	KINO Foyer
17:30 - 18:30	SESSION III: Synchrotron landscape	KINO
17:30 - 18:00	Antje Vollmer The synchrotron radiation source BESSY II - research options for the international science community	
18:00 - 18:30	Andrea Lausi SESAME - Light for the middle east	
18:30 - 20:00	Guided Tours / BESSY II Experimental Hall	
20:00 - 22:30	POSTER SESSION / Part I	KINO Foyer

DAY 2 / 20 June 2023 (Tuesday)		
09:00 - 10:40	SESSION IV: Synchrotron Methods / Part I	KINO
09:00 - 09:20	Ivo Zizak Multimodal X-ray methods at mySpot	
09:20 - 09:40	Karpov Dmitry Nanoscale X-ray fluorescence and phase contrast bio-imaging at ID16A of the ESRF-EBS	
09:40 - 10:00	Emanuel Schneck Element-specific structural characterization of bimolecular layers and interfaces with standing-wave x-ray fluorescence	
10:00 - 10:20	Alexander Rack Microtomography Beamline ID19	
10:20 - 10:40	Stefan Werner Transmission X-ray Microscopy for nanoscale soft and tender Spectromicroscopy and Tomography	
10:40 - 11:10	Coffee Break	KINO Foyer
11:10 - 12:10	SESSION V: Marine questions / Part II	KINO
11:10 - 11:30	Ariel Chazan Functional metagenomics and microbial rhodopsins	
11:30 - 11:50	Giuseppe Falini Effects of intra-skeletal organic matrix in coral calcification process	
11:50 - 12:10	Marthe Rousseau Nacre (not only a beautiful material but also a biomaterial) under the X-rays	

12:10 - 16:00	Lunch Break & Networking Time	Canteens on-site
16:00 - 16:30	Coffee Break	KINO Foyer
16:30 - 17:50	SESSION VI: Synchrotron methods / Part II	KINO
16:30 - 16:50	Gianluca Lori BEATS: synchrotron computed tomography for the Middle East	
16:50 - 17:10	Manfred Weiss Fragment-Screening at the Helmholtz-Zentrum Berlin	
17:10 - 17:30	Lili Puskar Infrared beamline IRIS for the applications on Marine science	
17:30 - 17:50	Ioanna Mantouvalou Combined laboratory and synchrotron studies for elemental imaging from the nano- to the millimeter scale	
17:50 - 18:20	Coffee Break	KINO Foyer
18:20 - 20:00	SESSION VII: Marine questions / Part III	KINO
18:20 - 18:40	Dvir Gur The Cellular Regulation of Molecular Crystal-Forming Cells	
18:40 - 19:00	Oliver Spaker XRD/XRF mapping reveals cuticle modifications of <i>Limulus polyphemus</i> cornea leading to RI gradients	
19:00 - 19:20	Noy Shaked Studying guanine biomineral function in the green alga <i>Phacotus lenticularis</i>	
19:20 - 19:40	Amir Sagi Broad view of molt cycle, related gene expression and biomineralization in crayfish	
19:40 - 20:00	Avital Wagner Functional Molecular Crystals in Marine Biology	
20:00 - 22:30	POSTER SESSION / Part II	KINO Foyer

DAY 3 / 21 June 2023 (Wednesday)		
09:00 - 10:20	SESSION VIII: Marine questions / Part IV	KINO
09:00 - 09:20	Shai Shaked Two interesting instances of genes/proteins with respect to exoskeleton mineralization in crustaceans	
09:20 - 09:40	Benjamin Kruppke Crustacean proteins for modification of chitinous scaffolds – bioinspired bone substitute research	
09:40 - 10:00	Tal Luzzatto The microbes and chemistry in algae physiology	
10:00 - 10:20	Rodriguez Palomo Adrian Structure of narwhal tusk studied by X-ray dark field imaging	
10:20 - 10:50	Coffee Break	KINO Foyer
10:50 - 11:50	SESSION IX: Marine questions / Part V	KINO
10:50 - 11:10	Henrik Birkedal Biomineralization of Mantis Shrimp Dactyl Club during Development	
11:10 - 11:30	Ernesto Scoppola Structure and Composition of biomaterials investigated by X-ray Scattering and Fluorescence Tomography	
11:30 - 11:50	Marie Alberic The concomitant role of amorphous calcium carbonate and organic molecules in forming colorful sea urchin single crystalline biominerals with convoluted porous structures	
11:50 - 12:30	General Discussion & Summary	KINO