

Time schedule EGU2020 session SSP1.5 “(Bio)mineral archives of past environmental conditions: from the Precambrian to the present”

Monday, May 4th, 14:00 – 18:00 CET

Block 1: Mineralization in the sedimentary record | Chair: Patrick Meister & Silvia Frisia

14:00 **General Opening by Patrick Meister**

14:10 **Wolf** *From solutes to solids: towards a supramolecular view on mineralization processes*

14:20 **Frisia et al.** *Continental carbonates growth pathways, fabrics and diagenesis*

14:30 **Mentner et al.** *Palygorskite in a Paleosol from Zagros mountain belt, NE Iraq*

14:40 **Ni et al.** *Early diagenesis in benthic foraminifera under anoxic conditions from the Landsort Deep, Baltic Sea (IODP Site M0063)*

14:50 **Molnár et al.** *Nanostructure of biogenic aragonite: a study of otoliths and bivalve shells from a freshwater environment*

Block 2: Experimental biomineralization and proxy development | Chair: H. Jurikova, S. Viehmann & A. Rodler

15:00 **Intro to Block 2 by Hana Jurikova**

15:05 **van der Land et al.** *Microbial control on Anthropocene carbonates in slag drainage waters*

15:15 **Mehta et al.** *Biogeochemical significance of Intracellular calcification by Cyanobacteria*

15:25 **Langley et al.** *Palaeo cell size: A Novel Technique to Investigate the Cocosphere Fossil Record using Imaging Flow Cytometry*

15:35 **Schnabel et al.** *Links between shell chemistry and microstructure-A case study using *Arctica islandica**

15:45 **Mid-session break**

16:15 **Evans et al.** *Building amorphous calcium carbonate into geochemical biomineralisation models*

16:25 **Henehan et al.** *Latest Cretaceous foraminiferal ecology and palaeoceanographic inferences from chamber-specific LA-ICPMS analysis.*

16:35 **Buisson et al.** *$\delta^{11}B$ and B/Ca ontogenetic variability within *Globigerina bulloides**

Block 3: Proxy validation and climate reconstruction | Chair: Johan Vellekoop & Niels de Winter

16:45 **Intro to Block 3 by Niels de Winter**

16:50 **Höche et al.** *Exploring the biomineral morphology of crossed-lamellar bivalve shells as a water temperature proxy*

17:00 **Clark et al.** *Lutetian conid snails from the Paris and Hampshire Basins as seasonality archives of the middle Eocene*

17:10 **Dämmer et al.** *A chemical investigation of microstructural changes in oyster (*Magallana gigas*) shells*

17:20 **de Winter et al.** *Absolute temperature seasonality from skeletal carbonates—Techniques and limitations of oxygen- and clumped isotope analyses*

17:30 **Meister and Reyes** *The carbon-isotope signature of diagenetic carbonates*

17:40 **Bajnai et al.** *Combined clumped isotope measurements resolve kinetic biases in carbonate formation temperatures*

17:50 **Bonnin et al.** *Testing the effect of crystal growth rate on foraminiferal calcite microchemistry using Sr/Ca of individual day/night bands*

18:00 **Closing remarks & General discussion (chat closes at 18:30)**