

Professor **Anders Meibom**.
Secretary: +41 21 693 80 15

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Postdoc and PhD-student openings at EPFL:

Studies of diagenetic processes in marine biogenic calcite

Funded by the ERC Advanced Grant UltraPal, the Laboratory for Biological Geochemistry at EPFL is opening several research positions at the Postdoc and/or PhD-student level during the fall of 2018.

The isotopic and elemental compositions of calcite structures formed by organisms (such as foraminifera, brachiopods, mollusks ...) are frequently used for paleo-environmental reconstructions. However, visually imperceptible, ultrastructure-level processes that occur during sediment burial/diagenesis can introduce a strong bias in these records. The objectives with UltraPal are to experimentally constrain these processes, quantify their impact, and correct paleo-environmental records.

For this work we are seeking people with a strong background or interest in the following disciplines:

- 1) biomineralization/biology of calcifying marine organisms
- 2) low-temperature geochemistry
- 3) petrology/mineralogy/surface chemistry

The selected candidates will work in a highly interdisciplinary environment with multiple international partners, on complementing projects that will include growth of bio-calcites under controlled laboratory conditions, stable isotope labeling and autoclave experiments, high precision stable isotope (incl. clumped isotopes) and trace element measurements, and correlated ultra-structural characterization with techniques such as TEM, SEM, AFM, and NanoSIMS.

Interested candidates are invited to submit a letter of motivation, CV and publication list, and contact information of three professional references to anders.meibom@epfl.ch.