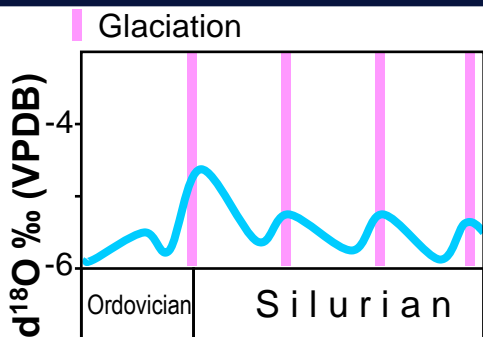
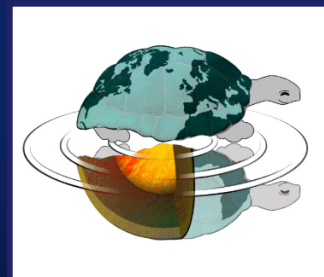




UNIVERSITÀ DEGLI STUDI DI MILANO

Corso di Dottorato in  
Scienze della Terra

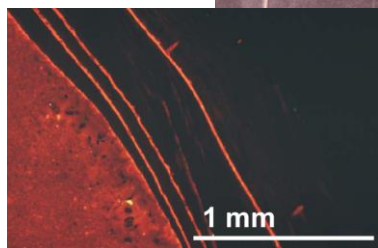
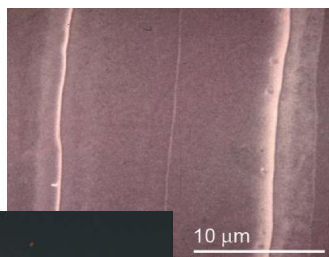


Milano - 2-5 May 2017 - Short course (4 cfu)

Stable isotope and their applications in carbonate paleoenvironment, chemostratigraphy and diagenesis

#### PROGRAM

Introduction  
Decay mechanisms  
Fractionation of stable isotopes  
Hydrogen and oxygen  
Carbon, Sulfur, Strontium  
Isotope signatures of diagenetic cements  
Evaluation of carbonate preservation  
Applications of stable isotopes in chemostratigraphy, paleoclimatology, paleoceanography, diagenesis



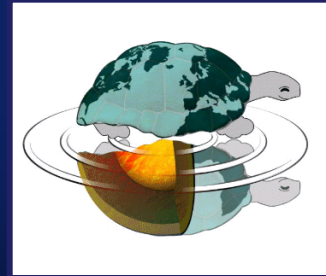
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**Prof. Karem Azmy**  
Dipartimento di Geoscienze  
Università di Padova



# UNIVERSITÀ DEGLI STUDI DI MILANO

## Corso di Dottorato in Scienze della Terra



Milano - 2-5 May 2017 - Short course (4 cfu)

### Training objectives:

*The course will provide an introduction to aspects of stable isotope geology particularly those of carbon, oxygen, strontium, and sulfur and their applications in geosciences.*

*The student will be able to understand how to evaluate the reliability of measured isotope signatures using pre-screening petrographic (regular thin sections, cathodoluminescence, and scanning electron microscope - technique principles with examples will be explained) and geochemical (trace element composition) approaches.*

*Examples (case studies) of primary/near-primary signals of various isotopes will be discussed as a part of training on the reconstruction of paleoenvironmental conditions (paleoceanographic and paleoclimatic patterns).*

*On the other hands, the course will explain the utilization of geochemical signatures of secondary calcite phases (e.g., cements), particularly those of oxygen isotopes and trace elements, for the reconstruction of the geochemical composition of the parent diagenetic fluid. This requires the combination of microthermometric measurements with the stable isotopes (case studies will also be discussed), a techniques that will be also introduced during the course.*

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