

Effects of chemical alteration on mechanical and flow properties of a limestone: A multi-scale approach

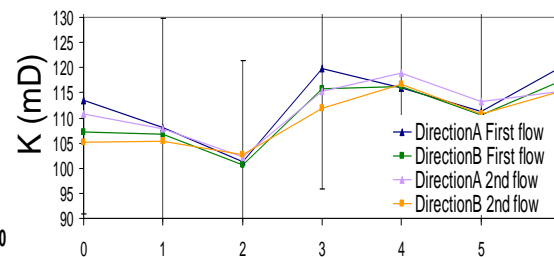
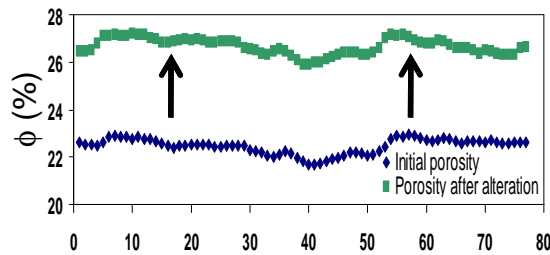
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Macroscale

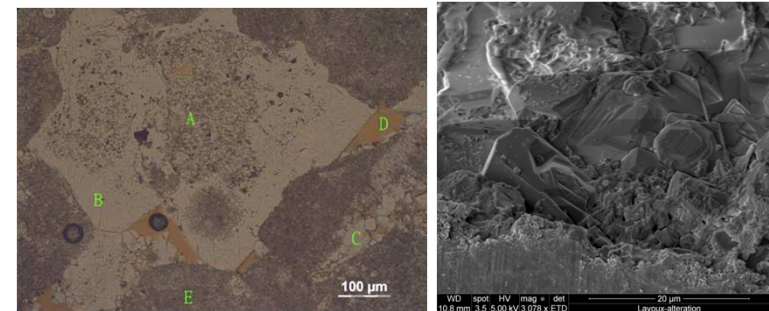
Mesoscale

Microscale

Validation of homogeneous alteration procedure
Measurements of permeability evolutions with alteration
Impact on both petrophysical and mechanical properties



Microstructural evolutions :
HPMI, MNR, Thin section, SEM, μ -CT

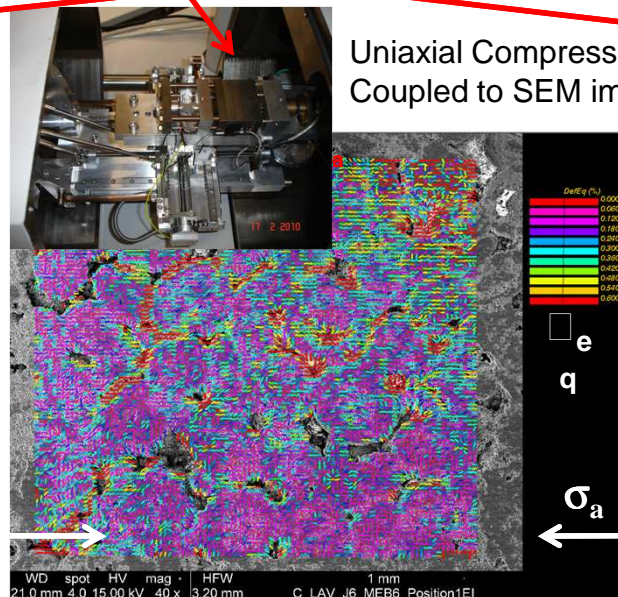


Full Field Measurements / 2D and 3D Digital Image Correlation

Optical observation of macroscopical samples under uniaxial compression



Uniaxial Compression
Coupled to SEM imaging



Triaxial cell coupled to
laboratory μ -CT facility.

