



Dipartimento di Scienze e Tecnologie

ACADEMIC YEAR 2017/2018

STUDY COURSE IN GEOLOGICAL SCIENCE AND TECHNOLOGY
TEACHING: IDROGEOCHEMISTRY PART B (6 CFU)

PROFESSOR DOMENICO CICCHELLA

- Water properties
- Solubility and hydrolysis of the main minerals
- Factors that influence the behavior of chemical elements in water and soil: ionic potential, pH, oxidation potential, adsorption, bacterial activity, etc.
- pH-Eh Diagrams
- Chemical composition of marine and continental waters
- Graphical representation of the water chemical composition
- Water Quality Parameters
- Italian, international and WHO guidelines
- Water intended for human consumption: mineral waters and tap water
- Natural and anthropogenic pollution
- Site Characterization. D.L. 152/2006
- Characterization plan
- Sampling methods
- Sample analysis and protocols
- Quality controls (accuracy and precision)
- Statistical analysis of geochemical data
- Determination of background and anomalous values
- Data Processing
- Geochemical mapping using geographic information systems (GIS)
- Risk analysis in contaminated sites
- Remediation of contaminated sites

References

- Course materials prepared by professor