



Department of Civil and Environmental Engineering
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Aquatic Environmental Science

5. pH and Redox potential

1. Acidity of Water
 - Definition of pH
 - Equilibrium constant
 - pH in natural waters
 - Calculation of pH
 2. Dissolved Oxygen
 - Oxygen availability
 - Solubility of oxygen
 - Saturation of dissolved oxygen
 3. Oxidation and Reduction
 - Definition of oxidation and reduction
 - Oxidant and reductant
 - Redox potential (ORP, E_h)
 - pE-pH diagram
 - Chemical equilibrium model
 4. Exercise
 5. Basic Analytical Chemistry (appendix)
 - Units for water quality assessment
 - General procedure for determining solute concentrations
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