

Department of Civil Engineering
2010 Summer Semester
Yoshimura Chihiro

Aquatic Environmental Science

7. Particle and colloid

Outline (7 June 2010)

1. Report submission
 2. Size continuum of particles
 - Dissolved and particulate
 - Inorganic and organic
 3. Sediment
 - Particle sedimentation
 - Wash load, bed material load, suspended load
 - Sediment dynamics in rivers
 - Erosion and sedimentation
 - Dynamics of river channels
 4. Organic particles
 - DOM, FPOM, CPOM
 - Colloids
 - Humic substances
 - Size distribution of organic particles
 5. Solid - water interface
 - Chemical bonding
 - Adsorption
 - Adsorption isotherm
 6. Exercise
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