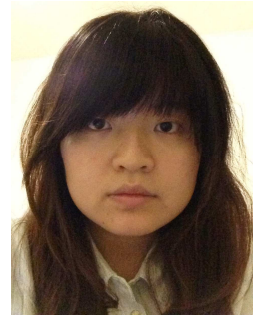


Feishu CAO
PhD student in Biochemistry



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Expertise

Feishu Cao is first year PhD student in Université Paris-Est. She received her bachelor degree in Applied Chemistry in 2010, and master degree in Biochemical Engineering in 2013 at Zhejiang Gongshang University, China. She received National Encouragement Scholarship of China in 2008, and her master thesis “Structural characterization and biosorption of exopolysaccharides from *Anoxybacillus* sp. R4-33 isolated from radioactive radon hot spring” was sponsored by Students National Innovation Fund of China. She has experience in applications of some analytical techniques (e.g. high performance liquid chromatography, flame atomic absorption spectroscopy), and kinetic and isotherm analysis in metal sorption process.

In 2013, she received Erasmus Mundus Fellowship and enrolled in the ETeCoS³ program. Her PhD thesis is mainly focusing on the interaction between metals and extracellular polymeric substance (EPS), which can contribute to understand the trace metals influence in anaerobic digestion. Nickel and Cobalt are the targeted metals, *Cupriavidus metallidurans* CH34 is chosen as the model bacteria in her research.

The main objectives of her PhD thesis include four aspects:

- effects of different carbon source on bacteria metabolisms and EPS composition and concentrations,
- effects of different metal concentrations on bacterial metabolism and EPS composition and concentrations,
- influence of EPS composition on metal sorption,
- effects of trace metals in anaerobic digestion performance.