CO₂ reduction using natural chelating agents

Instructors: (Graduate School of Environmental Studies, Resources and Energy Security)

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The development of efficient and environmentally friendly carbon dioxide (CO_2) reduction technologies on a global scale is an important issue for achieving a sustainable low-carbon society. In this course, amino acids derived from plant and microbial metabolism will be utilized as natural chelating agents to accelerate the dissolution of minerals, thereby control the chemical state of water to accelerate the capture and fixation of atmosphere CO_2 . Through laboratory experiments, the amount of captured and fixed CO_2 will be quantified, and effectiveness evaluation of this CO_2 reduction system and practical CO_2 reduction system will be discussed.