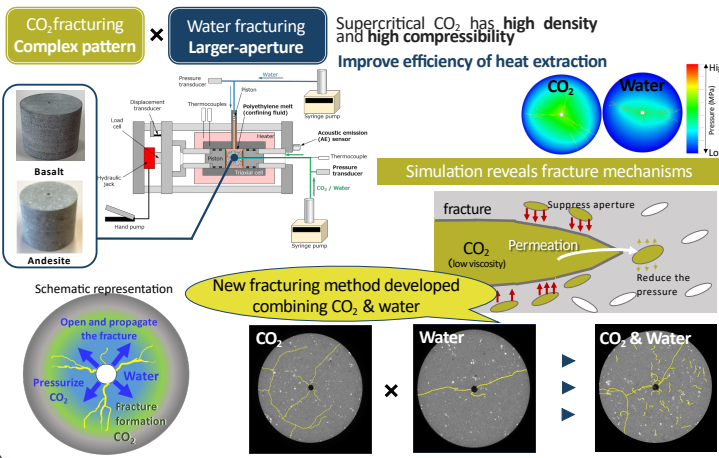


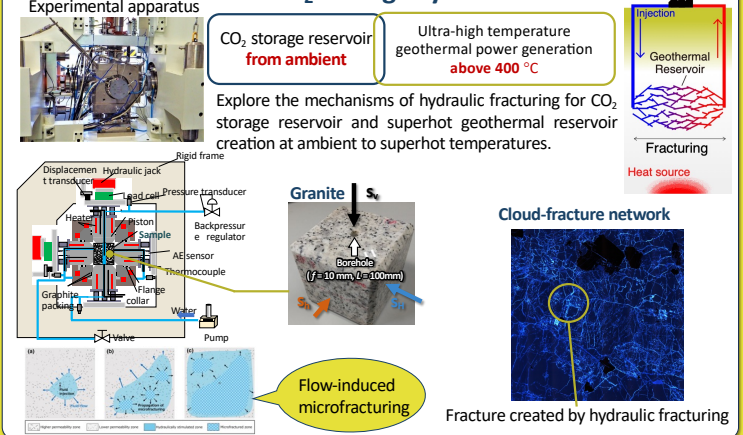
We conduct research on technologies for the development and production of sustainable and profitable energy resources. The research includes assessment and mitigation for environmental risks that may arise in the process of the development and utilization of the resources. Our research is based on the understanding of the properties of soil, rock, and fluids, as well as coupled phenomena of heat and fluid transfer, deformations, and chemical reactions, under various conditions resembling earth's surface and subsurface.



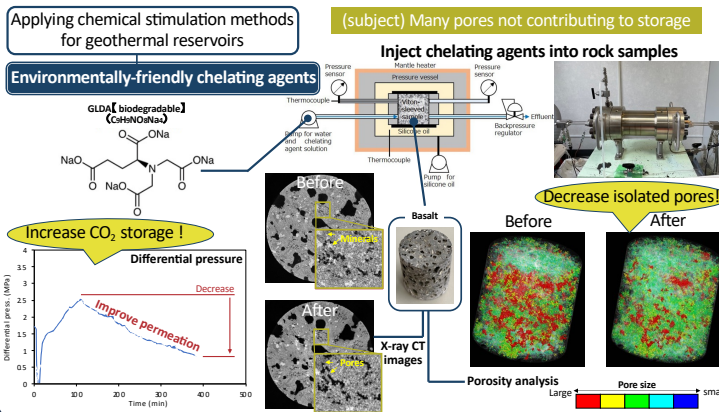
### CO<sub>2</sub> Utilization in geothermal development



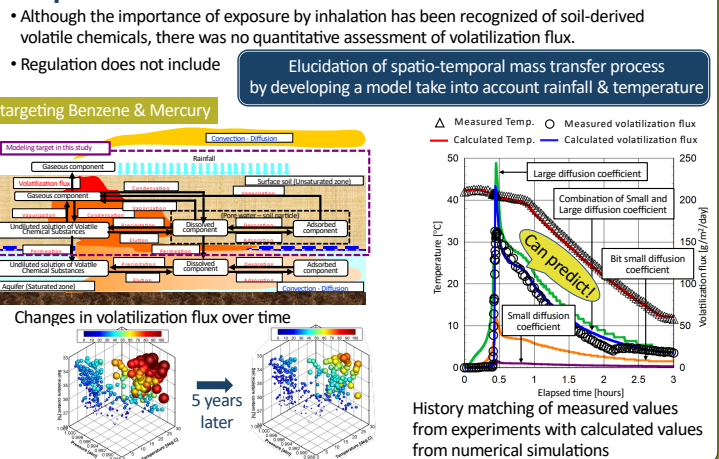
### Hydraulic fracturing of superhot geothermal system and CO<sub>2</sub> storage system



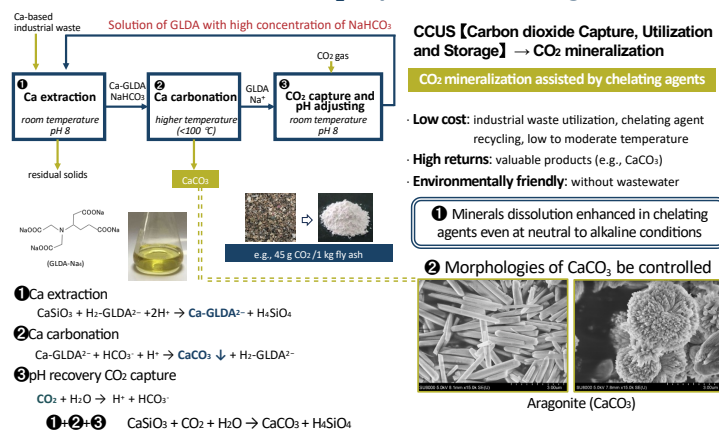
### Improving reactivity and permeability with chelating agents to facilitate CO<sub>2</sub> storage and mineralization



### Exposure Risk Assessment of volatile substances



### Chelating agent-looping process for enhanced CO<sub>2</sub> capture and storage



### Natural chelating agent enhances mineral dissolution for CO<sub>2</sub> reduction

