



Contribution ID: 202

Type: **not specified**

## **Basic research using synchrotron radiation and commercialization of waste heat recovery technology from ILC**

*Tuesday, 16 May 2023 17:30 (10 minutes)*

We are conducting research to recover and utilize the energy discharged from the ILC facility under the concept of Green ILC. As the candidate site for construction, Iwate Prefecture, which has the Kitakami site, is 80% mountainous, and an effective model for heat energy circulation and utilization that suits the regional characteristics is required. Therefore, we aim to commercialize an off-line waste heat circulation model using an innovative adsorption-type heat storage material called "HASClay," which can be regenerated at low temperatures. Here, we introduce fundamental research aimed at understanding the structural changes caused by the adsorption and desorption of water molecules into the fine pore structure of HASClay using a synchrotron radiation facility, as well as conducting demonstration tests to achieve commercialization.

**Presenter:** MITOYA, Goh (Higashi Nihon Kidenkaihatu Co., Ltd., Japan)

**Session Classification:** Sustainability Plenary