KISHI LAB.

[Property of material concrete and durability of concrete structure]

Department of Human & Social Systems

http://wdnsword.iis.u-tokyo.ac.jp/index_e.shtml

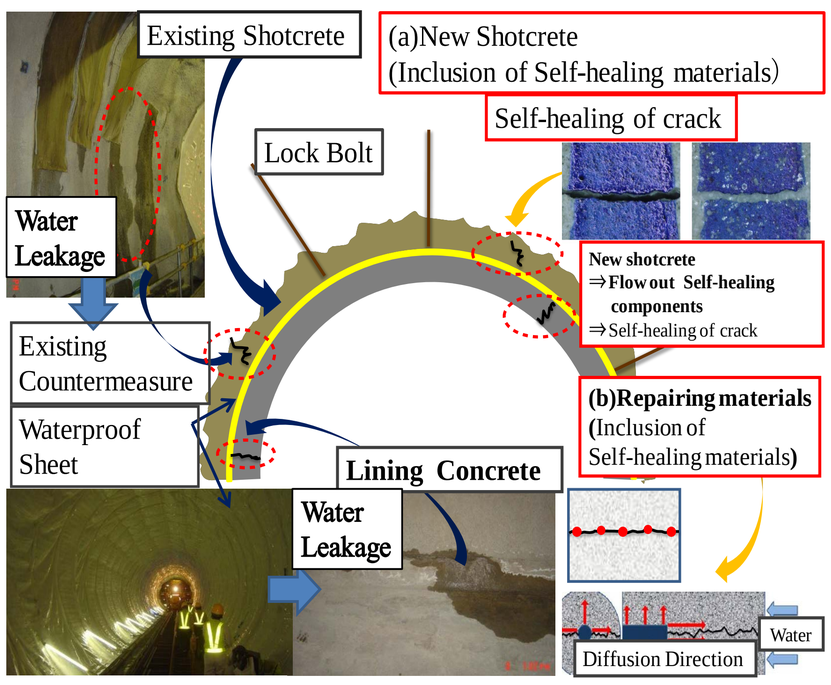
Concrete & Recycling Engineering

Dept.of Civil Eng.

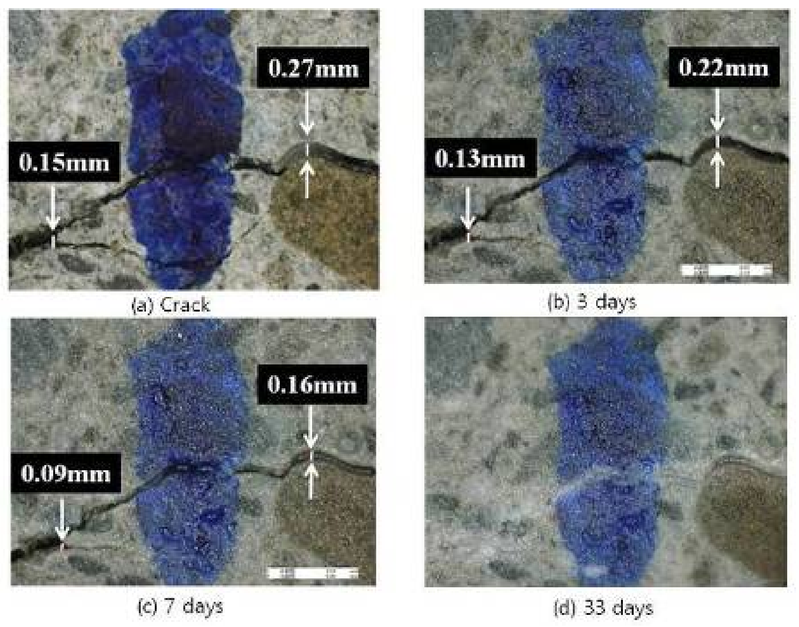
Property and durability of concrete

Kishi laboratory undertake research on (1) cement-based material resolving its physical property, performance assessment, development and practical application of new material and (2) quality inspection / maintenance of concrete structure.

- **Investigation of durability and quality assessment on the surface concrete**
- **Application of self-healing technology to various civil infrastructures**
- **A study on the relationship between micro pore structure and mass transfer in cementitious material using micro/ nano technology**
- **Thermal stress relaxation by hybrid use between expansive additive and light weight aggregate （using Thermal Stress Testing Machine）**
- **A study on salt penetration property of concrete using various admixtures**

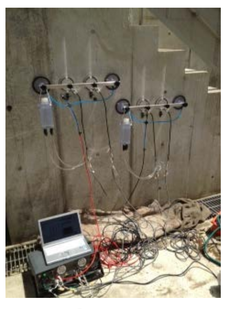


Application of self-healing concrete for water leakage of underground infrastructures as tunnels



Self-healing process of self-healing concrete

Concrete canoe competition
(Made of self-healing concrete)



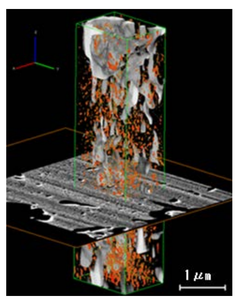
Surface Water Absorption test （SWAT）

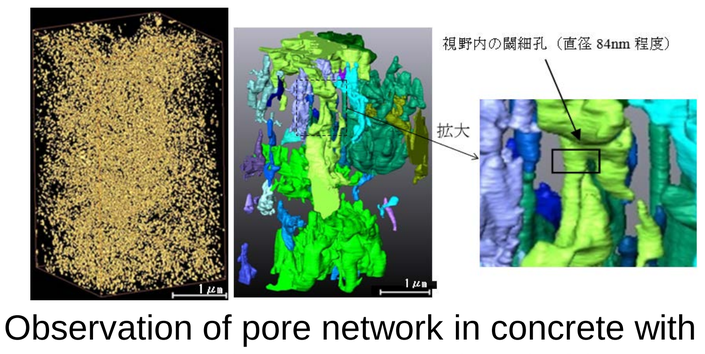
Surface air permeability test (Torrent method)

Repeated water flow test

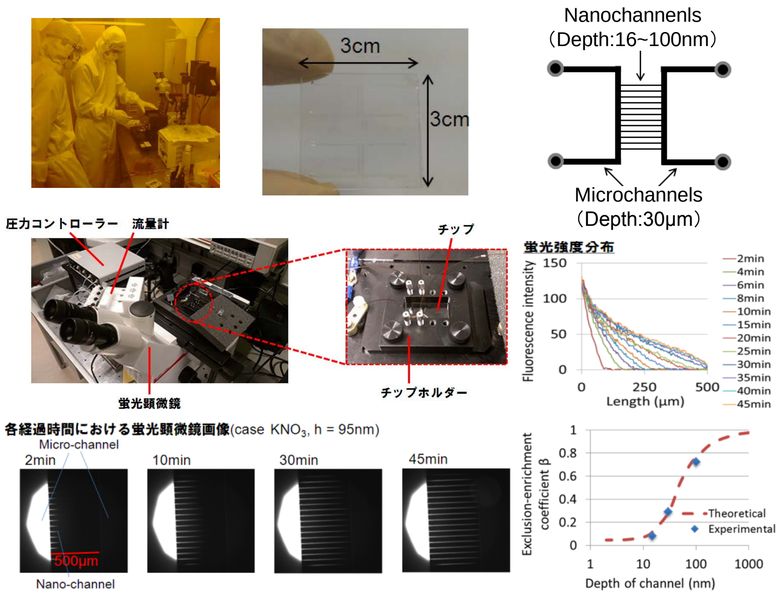
Evaluation of concrete surface quality

Conducted at Hitachi high-technologies





Observation of pore network in concrete with FIB-SEM and extraction of threshold pore diameter which governs mass transport



Mass transport in micro/nano channel

Under the guidance of Hibara lab. In 4th division (now in Tokyo Institute of Technology) and Prof. Eijkel in Twehte university