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.

◆ A study on new evaluation method of salt penetration that can be considered stagnation and continuation of advection and diffusion
◆ A study on new durability design frame that is based on evaluation of liquid water penetration as alternative to neutralization
◆ A study on the relationship between micro pore structure and mass transfer in cementitious material using micro/ nano technology
◆ A study on mechanism of water flow reduction due to air bubble generation in crack
◆ Development of simplified evaluation method of concrete surface quality
◆ Development of self-healing technology of concrete crack

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

Self-healing process of self-healing concrete

Water flow reduction due to generation of air bubble

Phenomenon of salt penetration stagnation

Evaluation of concrete surface quality

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 Twente university

Institute of Industrial Science