

KISHI LAB.

Physical properties of concrete and durability of concrete structure



Department of Human & Social Systems

Concrete Engineering and Recycling

<http://wdnsword.iis.u-tokyo.ac.jp>

We research on (1) physical property, performance assessment, deterioration mechanism of cementitious materials, (2) development and practical application of new material and (3) quality inspection / maintenance of concrete structure.

- Moisture movement and shrinkage mechanism of cement paste, with fly ash and slag
- New maintenance design frame based on combination evaluation of liquid water penetration and neutralization (carbonation)
- Regularity of flow based on velocity profiles in coaxial cylinders
- Mechanism of water flow reduction due to the existence of air-water interface in crack
- The multi-scale understanding of early-age cracking problems
- Development of self-healing technology of concrete crack

