Fresh concrete

座長:河合研至(土木),山本武志(建築)

Wed. Jun 26, 2024 3:20 PM - 5:20 PM Room 1 (小展示室A)

[1152]EVALUATING CONCRETE RHEOLOGY USING AN INTENSIVE CONCRETE MIXER WITH HELICAL IMPELLER RHEOMETRY

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Keywords: Concrete rheology、helical impeller rheometer、coaxial cylinder rheometer、yield stress、plastic viscosity

Acknowledging the limitations slump test to measure concrete workability, this paper advocates for a shift towards evaluating workability using scientific principles of concrete rheology. This study introduces a newly developed an intensive concrete mixer with a helical impeller rotor tool, that could serve as a rheometer. Preliminary assessment confirms the capability of the helical impeller rheometer to evaluate concrete rheology similar to that of coaxial cylindrical rheometer, which is the foundational principle of concrete rheology measurement. The study also lays the groundwork for exploring additional functions like measuring optimum mixing time and thixotropy.

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