

## 12. Experiment of Flat Plate Structure - Part 2 Horizontal Loading Tests -

**Takeshi Kishimoto, Kunio Hayakawa,  
Yasuhiro Oka, Kazuo Hiramatsu**

Flat plate structure, which consists of columns and beam-less slabs, is a method for building skeleton infill houses. Since flat plate structures have no beams, spaces can be organized freely, but has been used combined with earthquake resisting elements, such as earthquake resisting walls and core walls, since its behaviors during earthquake have not been thoroughly understood. Structural experiments were conducted to investigate the properties of flat plate structures during earthquake and their design conditions as a step following the previous experiment, which revealed their basic properties. Assuming an application to an actual building, the effects of precasting slabs, long spans and the details of the top floor on the structural performances were investigated. This paper describes an overview of the experiments.

**Key words** : flat plate, reinforced concrete, slab