



## 论文摘要

中南大学学报(自然科学版)

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Vol.34 No.2 Apr.2003

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文章编号: 1005-9792(2003)02-0203-05

### 高强砖组合墙体抗侧力研究

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**摘要:** 对3批22片组合墙体在不同试验参数和试验条件下的试验结果进行了比较与分析,并对这种墙体的抗侧承载力进行了讨论;对影响组合墙体抗侧承载力的因素如高宽比、竖向压应力、纵向与水平钢筋的配筋率以及混凝土率等因素进行分析,指出其各自不同的作用机理和对抗侧承载力的贡献程度;对组合墙的正截面和斜截面的受力状况进行分析,给出了不同情况下正截面和斜截面抗侧承载力的计算公式,为该类房屋的设计提供了依据;对国内大量试验研究的数据进行了回归拟合. 研究表明,组合墙体是一种具有良好变形性能的结构形式.

**关键字:** 组合墙; 抗侧承载力; 砖砌体

### Research on the resistant capacity of lateral loading of composite walls made of bricks with higher compressive strength

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**Abstract:** The resistant capacity of lateral loading of the composite wall made of sintered shalefavinosecoal bricks with higher compressive strength is discussed by analyzing the different results of three series of walls about 22 pieces with different experimental parameters. Researches are made on the mechanism and effects on the resistant capacity of lateral loading of all kinds of factors, such as the ratio of rise to span, axial compressive strain, ratio of horizontal and vertical reinforcement and ratio of concrete. A simplified formula for calculating the resistant capacity of the normal section and the bevel section are suggested after a detailed analysis of loading conditions in the composite wall, which provides a sound basis for design of this type of construction. Some useful parameters are provided to guide the practical engineering by being fit to lots of other test results in our nation when the ratio of rise to span is changed. The results indicate that this kind of composite wall has the advantages of higher resistant capacity of lateral loading and has excellent practical value and good prospects.

**Key words:** composite wall; resistant capacity of lateral loading; masonry made of bricks

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