

## Experimental Research on Ductility of Regional Confined Concrete Beam

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**Abstract :** In efforts to study the shear ductility of regional confined concrete beam, 5 reinforced concrete beams were tested to examine its shear performance. These beams has the same shear span ratio, concrete strength, different ratios of tension reinforcement and shapes of stirrup. The purpose of the test is studying the effects of stirrup shape and tension reinforcement ratio on failure mode and shear ductility. The test shows that the regional confined part can be used as an independent part and the rest of the beam is good to work together so that the ductility of the beam is more one time higher than that of the normal confined concrete beam. The related laws of the effect of tension reinforcement ratio and stirrup shapes on beam's shear ductility are founded.

**Keywords :** ratio of tension reinforcement, stirrup shapes, shear ductility, failure mode

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