

报告题目及摘要/ Title & Abstract *		
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报告题目 /Title	MICROSTRUCTURE OF CEMENT-BASES COMPOSITES CONTAINING ROCK WOOL PARTICLES	
摘要/ Abstract	<p>Rock wool is an inorganic fibrous substance produced by steam blasting and cooling molten glass. Like other industry by-products, rock wool particles can be used as cementitious materials or ultra fine fillers in cement-based composites. This study investigated the microstructure of cement-based composites with addition of various rock wool particles in mortar specimens. Compressive strength, rapid chloride penetration test (RCPT), X-ray diffraction analysis (XRD), thermo gravimetric analysis (TGA) and scanning electronic microscopy observation (SEM) were conducted to evaluate the properties of cement-based composites. Test results indicated that inclusion of rock wool particles had higher compressive strength than control specimens. Rock wool specimens also had lower chloride ion penetration based on the results of RCPT. In addition, less <math>\text{Ca}(\text{OH})_2</math> was found in rock wool specimens and rock wool specimens had dense internal structure as illustrated by SEM observation.</p>	