

## عنوان مقاله:

(Effect of cement based products containing Trass on expansion due to alkali silica reaction (ASR

## محل انتشار:

یازدهمین کنگره ملی مهندسی عمران (سال: 1398)

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## خلاصه مقاله:

Alkali silica reaction (ASR) is one the major durability problems of concrete in all over the world. Different methods exist to mitigate it. One of them is using supplementary cementitious materials (SCMs) as partial replacement to cement. It can reduce cracks due to ASR by binding alkalis and limiting their availability for reaction. In this study effect of cement based products containing trass and limestone on ASR examined by ASTM C1260. In this paper different levels of replacement (%10, %20, %35) of trass tested. Results proved that trass has a positive effect on ASR mechanism and can dramatically suppress it in sufficient substitution level. The minimum required dosage of trass to control expansions due to ASR that can be replaced with cement is 20%. Replacing the higher dosages than 20% (e.g. 35%) is desirable for other reasons

## کلمات کلیدی:

alkali-silica reaction(ASR), supplementary cementitious materials (SCMs), ASTM C1260, Trass

## لینک ثابت مقاله در پایگاه سیویلیکا:

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