

## عنوان مقاله:

A SENSITIVITY ANALYSIS ON THE CHLORIDE-INDUCED CORROSION INITIATION TIME OF RC ELEMENTS

## محل انتشار:

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## خلاصه مقاله:

One of the most important causes for reinforcing steel corrosion is the presence, ingress and attack of chloride ions on RC elements. Reinforcement corrosion has been widely reported in the literature over the last two to three decades. They cause localized breakdown of the passive film that initially formed on steel as a result of the alkaline nature of the pore solution in concrete. In this paper, a sensitivity study was carried out on the influence of the effective parameters of corrosion on the corrosion initiation time, both in uncracked and cracked concrete elements. The results of the study shows a high sensitivity of the corrosion initiation time, regarding  $C_s$  (chloride surface concentration) and  $C$  (cover depth), in uncracked concrete, and on the other side, more sensitivity of the ratio of the  $w/l$  (crack width to crack spacing) in cracked concrete elements

## کلمات کلیدی:

reinforcement corrosion; sensitivity analysis; electrochemical process; corrosion initiation time cracked concrete

## لینک ثابت مقاله در پایگاه سیویلیکا:

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