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Young Scientists' Researches

Contribution to the decay estimation for the construction elements by freezing and thawing process

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Summary

During the service life, a real structure has been always subjected to environmental attacks; these attacks have a large influence depending on the intensity and the duration. One of most important factor which causes damages to structures is temperature variation. These damages may lead to the loss of structural performances or even failure of the structure prior to its expected service life.
The theses analyze the phenomena of freezing-thawing regarding civil constructions and especially the concrete structures. The paper has five chapters; in the first one is the introduction, the second one refers to degradation process such as frost attack in cement-based porous materials increases the costs to maintain structures especially in the north countries; the third one is about durability structures with the internal and external factors which attack the civil constructions, this chapter has an important classification of the damage factors; the chapter four

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refers to experimental research regarding freezing and thawing and the final chapter are the conclusions.

Keywords: freezing-thawing phenomena, durability

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