

عنوان مقاله:

Experimental Investigation of Nano Zinc Oxide Effect on Creep Compliance of Hot Mix Asphalt

محل انتشار:

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خلاصه مقاله:

In recent years, many researches were down to improve service life of asphalt pavement quality against vehicles dynamic loads. For this purpose, researchers investigated different ways such as changing the aggregate gradation and using of additive material to modify bitumen and asphalt mixture. One of this ways is using of additive materials to improvement of asphalt properties against dynamic loads. Due to unique characteristics of nano materials, using of them in asphalt mixtures has been interested. Therefore, in this study the effect of nano zinc oxide (ZnO) in improvement of mechanical properties of hot mix asphalt (HMA) has been investigated. To achieve this goal, mixtures with different content of bitumen and nano zinc oxide were made and the effect of these parameters was investigated on the modified mixture in compare with conventional asphalt mixture. The results showed that adding of nano zinc oxide to HMA had a great effect in the improvement of permanent deformation of HMA.

کلمات کلیدی:

HMA, Nano Materials, Creep Compliance, Permanent Deformation

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