## عنوان مقاله:

Evaluation of Methods in order to attenuation of seismic amplification: cells full of lead and empty

## محل انتشار:

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## خلاصه مقاله:

On the base of different researches about site effects, considerable and destructive seismic amplifications due to different irregularities have been observed. The main purpose of this article is to investigate using some empty cells and ones full of lead materials around a triangullar hill subjected to vertically propagated incident SV waves. The soil medium is considered elastic, homogeneous and isotropic. The results indicate that seismic responses have been reduced up to 3% and 19% on cases with Empty Cells (EC) and Lead Cells (LC); according to the results, the LC method has been better than the EC one, because of its robost attenuation power on seismic amplifications. The set of lead cells could make a cloak zone so that some waves propagated at this zone, have been dispersed or disappeared. Thus, these materials have been considerably caused reduction of seismic responses. However, cost of implementing LC is more than EC. Generally, it can be mush appropriate using these methods on regions subjected to seismic or even explosion hazards to protect them well.

## کلمات کلیدی:

Irregularity, seismic amplification, reduction, SV waves