

터널내의 흡음재 부착 효과 연구

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A Study for the Effect of Sound Absorbing Materials in the Tunnel

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ABSTRACT

Today, according to development of traffics, there are so many tunnels around us. Tunnels are used for trains, subway trains, cars, etc. Especially for subway, all of its routes are tunnels. So the noise of the subway train cannot radiated out of the station and the noise level in the station and train cabin is so high. There are some methods to reduce this noise and one of them is using absorbing materials. But the area of the tunnel and station is very large, so it is important to determine the effective position and amount of absorbing materials before attaching them. In this study, we studied the effect of sound absorbing materials in the tunnel using boundary element method. We applied BEM for general boundary conditions. With BEM calculations, we found the effect of absorbing materials and effective positions for the subway tunnel and station.

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