Reduction of Micro-pressure Wave Emitted from Portal of Side Branch of High-speed Railway Tunnel

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When a high-speed train enters a tunnel equipped with branches, micro-pressure waves emit from the portals of the branches as well as from those of the main tunnel. They can cause environmental problems for high-speed railways, especially in urban areas. In this study, we investigate a countermeasure against the micro-pressure wave from the portals of the branches. It is shown that a branch divided in two parts by a partition inside near the portal end, one side as closed, can be effective to reduce the magnitude of the micro-pressure wave.