



## **Geoacoustic models of Coastal Bottom Strata at Jeongdongjin in the Korean continental margin of the East Sea**

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Geoacoustic models provide submarine environmental data to predict sound transmission through submarine bottom layers of sedimentary strata and acoustic basement. This study reconstructed four geoacoustic models for sediments of 50 m thick at the Jeongdongjin area in the western continental margin of the East Sea. Bottom models were based on about 1100 line-km data of the high-resolution air-gun seismic and subbottom profiles (SBP) with sediment cores. The 4 piston cores were analyzed for reconstruction of the bottom and geoacoustic models in the study area, together with 2 long cores in the adjacent area. P-wave speed in the core sediment was measured by the pulse transmission technique, and the resonance frequency of piezoelectric transducers was maintained at 1 MHz. Measurements of 42 P-wave speeds and 41 attenuations were fulfilled in three core sediments. For actual modeling, the P-wave speeds of the models were compensated to in situ depth below the sea floor using the Hamilton method. These geoacoustic models of coastal bottom strata will be used for geoacoustic and underwater acoustic experiments reflecting vertical and lateral variability of geoacoustic properties in the Jeongdongjin area of the East Sea.

**Keywords:** geoaoustic model, bottom model, P-wave speed, Jeongdongjin, East Sea

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