

## Offset in radiocarbon ages between shell and plant pairs in the Holocene sediments around the Korea

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Since 2009, a research project to evaluate the marine reservoir effects of the coastal sites of Korea has been progressed by KIGAM. Estimating the reservoir effect of this area is difficult because age-known marine samples obtained before AD 1950 are rare. In order to solve this problem, 61 sediment cores were collected with 1 m intervals by a percussion drilling tool from 52 coastal sites in the southern area of the Korean Peninsula. These drilling sites were roughly preselected by the interpretation of modern air photos of internet map services provided by the websites such as Daum and Google. Topographic maps in 1918-1926 with 1/50000 scale and old air photos were also used for the site selection. The length of each core was less than 5 m and the total length was 132 m. Based on analysis of lithology and mollusk assemblages, we selected marine shell and terrestrial plant pairs from same horizons. These samples were cleaned by physical and chemical pretreatments, and reduced by automatic graphitization system in KIGAM. The radiocarbon ages of the samples were measured by the AMS facility of KIGAM. This presentation will report about spatial and historical variation of radiocarbon marine reservoir effect around Korea.

Keywords: Radiocarbon dating, Marine reservoir effect, Coastal sediments, Korea