A Study on the Environment Change of Tidal Flat In the Hampyeong Bay Using Remotely Sensed Data

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Abstract: The purpose of this study is to analyze the geological environment changes of tidal flat in the Hampyeong Bay. Especially, it centers on the changes in the sedimentary environment using remote sensing data. Multi-temporal Landsat data were used in this study. Remote sensing methods can be effectively applied for quantitative analysis of geological environment changes in tidal flat.
Keywords: Hampyeong, Landsat, Sedimentary environment

1. Introduction

The surface sediments of Hampyeong Bay, the southwestern coast of Korea, show several distribution patterns in accordance with areal characteristics, widely ranging pebble to clay in grain size. The coarse sediments are distributed on the subtidal zone along the main tidal channel and on the bay-head intertidal zone which is broadly developed on the frontal region of the main tidal channel. On the other hand, the fine sediments are dominated in both sides of the intertidal zone of the main tidal channel. Most pebbles are relict sediments derived from nearshore and fluvial sediments which were deposited at the time of low stand of sea level. The pebbles may be derived from the weathering of granitic gneiss and volcanic rocks distributed in the coastal area of Hampyeong Bay. The coarse sediments, granule to fine sand derived from weathered granitic gneisses and gneissose granites around the study area, and the muddy sediments are transported from the seafloor of shelf and nearshore area.

Now, the surface sediments and remotely sensed data analysis for the study area are progressing. Therefore, we may show results on the study area during ACRS2003ISRS Conference period.

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