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ACG035-05

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## Nutrient discharge in a large tidal slope

Shin-ichi Onodera<sup>1\*</sup>, Mitsuyo Saito<sup>2</sup>, Koki Onishi<sup>1</sup>, Yuta Shimizu<sup>1</sup>, Minoru Tokumasu<sup>3</sup>

<sup>1</sup>Hiroshima University, <sup>2</sup>Ehime University, <sup>3</sup>Saijo City

To clarify spatial variation of nutrient discharge in one of a largest tidal slope of Seto Inland Sea, we observed subsurface flow and dissolved nitrogen, phosphorus, and silica, using piezometer and tracer method. The study area is located on Saijo city, Ehime prefecture, western Japan. The tidal slope has the width and length of 1km. We installed three piezometers for observing water potentials, collected pore water samples at the about 50 plots, and monitored <sup>222</sup>Rn of seawater at the edge of the tidal slope.

The <sup>222</sup>Rn and salinity of pore water indicated that discharges of shallow groundwater at the landside and deep groundwater at the shoreside of the tidal slope, respectively. The discharge volume was larger in shallow groundwater than in deep groundwater. The nutrient included the nitrogen as well as phosphorus and silica. Based on this observations, the large contribution of nutrient was confirmed from groundwater to coastal area.

Keywords: tidal slope, nutrient, groundwater, seawater, Radon