

## Dynamics of surface water and groundwater interaction at a coastal zone in Saijo plain, Ehime prefecture, western Japan

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An interaction process of surface water and groundwater was investigated using a multi-tracer approach at a coastal zone of Saijo plain, Ehime prefecture, Shikoku island, Japan. The surface water and the groundwater were sampled in an alluvial fan and a coastal area, and the inorganic constituents concentrations, CFCs concentrations, stable isotopes of hydrogen and oxygen, strontium isotopes were determined for those samples. The three groundwater wells at the coastal region were especially monitored according with tidal fluctuations of the ocean. The diurnal variation of the tracing elements of the groundwater was explained by the hydrological processes and the geochemical processes under the effect of the tidal fluctuation.

Keywords: sea water intrusion, alluvial fan, coastal region, groundwater