

# Regional water balance and quantitative evaluation of rainfall-runoff processes in mountainous igneous rock aquifer

# Naohiko Takamoto[1]; Jun Shimada[2]

[1] Dep't Earth Sci., Kumamoto Univ.; [2] Fac. of Sci., Kumamoto Univ.

Although many studies on unconsolidated aquifer of Tertiary or Quaternary formations have been done in Japan, little study has been conducted on the mountainous bedrock groundwater aquifer for the development of new water resources. Therefore, the research on the mountainous bedrock groundwater relatively becomes important for the new water resource development. This study clarified hydrological characteristic of the mountainous igneous rock aquifer by comparing the runoff characteristic of Hon-ura River and Nishi-ura River in the basin. This study is a part of the research project titled as 'Groundwater flow system study of mountainous bedrock aquifer and its evaluation as a water resources' which has been conducted in Ei-noo district, Shiranui, Kumamoto Prefecture.