



Using stable isotopes and hydrologic data to establish the shallow groundwater flow system in two Andesitic volcanic rock regions, Taiwan

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Water samples including rain water, surface water and groundwater from 9 wells in two different regions, the south and north of Cising Mountain, in the Tatun volcano group (TVG), Taiwan were collected and analyzed. The groundwater levels and precipitation data were integrated with oxygen and hydrogen isotopes data to identify the recharge periods and establish the shallow groundwater flow system of the region. The preliminary result shows that the major groundwater recharge to the south Cising Mountain region comes from the Caigongkeng Mountain. On the other hand, the groundwater recharge for the north Cising Mountain region primary comes from the Eastern Cising Mountain with minor contribution from the Caigongkeng Mountain. Winter seasons are the main recharge season for the northern Cising Mountain region while summers are the main recharge season of groundwater in the south of the mountain.