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Chemical characteristics of hot springs in Southwestern part of Taiwan

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Taiwan is located at the junction of the Ryukyu Trough and the Manila Trench which are the boundaries of the Philippine Sea Plate and the Eurasian plate. While the Philippine Sea plate is subducting beneath the Eurasian plate at the offshore of eastern Taiwan, the Eurasian plate is subducting beneath the Philippine Sea plate at Manila Trench at the south offshore of western Taiwan. The plate boundary is riding on the Taiwan Island in the vicinity of Kaohsiung, southern Taiwan, and the plate boundary appears as active faults to the north. Many faults striking NE - SW have been developed, and there are some hot springs and mud volcanoes (Hamada et al., 2009) along those faults.

We focused on the hot springs around Chiayi and Tainan, southwestern Taiwan in this study. These hot springs show temperature around 34 - 70 ℃ which are distributed about 20 km apart from the active faults to the east, arranging from north to south. We have conducted chemical analyses for the hot spring water taken from these springs and report the results of these analyses in this presentation.

Keywords: Taiwan, hot springs