

The groundwater flow system in the Aso caldera

Makoto Kagabu[1]; Jun Shimada[2]; Yasuo Shimano[3]

[1] Graduate school, Kuamoto University; [2] Grad. Sch. of Sci. & Tech., Kumamoto Univ.; [3] Bunsei Art Univ.

<http://www.sci.kumamoto-u.ac.jp/~hydrolab/index.html>

We separate the Aso caldera area into four regions based on the water chemistry and stable isotope analyzed by previous study. In this study, CFCs analysis was adopted to evaluate the residence time of groundwater in each regions. As a result, the residence time of groundwater in the root of the Aso rim was 20 years with Ca-HCO₃ type and in the confined aquifer and volcanic aquifer was 28 years with Ca-SO₄ type.