

Geochemical simulation for hydrothermal activity

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The estimation of geochemical change in volcanic and geothermal process is important. And the geochemical calculator (simulator), for example, Solveq-Chiller, is useful tool to calculate of fluid change. Especially, in Hijiori EGS field, calcite precipitate with CO₂ gas release with pH increasing from hot water fluid due to rapidly super-saturated as calcite calculated by Solveq-Chiller.

And we calculated in the case of reaction between CO₂ gas and fluid, mass balance and case study of CO₂ gas injection simulation using Hijiori EGS system.

And the phase balance have to be considered in other volcanic and geothermal system and we will show other field examples.

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