

Redox buffer capacities of water-mineral-microbe system around Tono uranium deposit

Teruki Iwatsuki[1], Yuki Murakami[1], Takeshi Naganuma[2]

[1] JNC TGC, [2] School of Biosphere Sci., Hiroshima Univ.

Redox buffer capacities of sedimentary rocks were studied at Tono uranium deposits area. The analysis of redox reactions in the water-mineral-microbe system suggests that the reduction of sulphate ion derived from shallow depths by sulphate-reducing bacteria is dominant reaction to maintain reducing environment in the sedimentary rocks. Total contents of sulphur species in sedimentary rocks analyzed are surmised to be enough to preserve long-term reducing condition in such system.