

# Strong acid waters in the tributaries of the Nishi River, Fukuoka Prefecture

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Chemical characteristics of strong acid waters in the tributaries of the Nishi River were studied, together with bottom precipitates. Waters of the five tributaries of the Nishi River show transparent but very low pH (2.6 - 4.2) and are enriched in  $\text{SO}_4$ , Ca, Fe, while the mainstream shows pH of 6.7 - 7.1. At the bottom of the tributaries, reddish-brown colored soft precipitates are always found, which are composed of amorphous iron hydroxide, containing goethite and schwertmannite. In this area, there occur abandoned coal-mine adits, from which we detected strong acid drainage. As the silicified woods in the coal waste around the old adit contain fine-grained pyrite, it is concluded that oxidization of pyrite in the coal bearing strata of the Nogata Group well explains the origin of Fe-rich strong acid river water.