Mt. Sanbe's Hot Springs

Hot springs originate as geothermically heated groundwater that rises up from beneath Earth's crust. Usually their warmth comes from contact with rocks heated by thermal radiation from within Earth's mantle, but in volcanically active areas, springs may instead be heated through direct contact with magma. This is the case with Mt. Sanbe's hot springs. In fact, they are the only sources of magma-heated water in the Chūgoku region.

The spring that supplies Sanbe Onsen comes from a rocky crevice in the valley between the peaks of Mt. Magosanbe and Mt. Hikageyama. From the crevice, water at between 39° and 41° C spills down the slope at a rate of 360 liters per minute. The rocks in the streambed and around the spring's mouth have been stained golden-red by the spring waters, whose high iron content coats the rocks with ruddy precipitate.

The Ikeda radium spring, which flows from Sanbe's western foothills, is known for having the highest concentration of radon of any spring in the world: about 89,338 becquerels per liter. (By comparison, the baseline concentration for a radioactive spring is 111 becquerels per liter.) Radon is produced by the radioactive decay of uranium, which is found naturally in igneous rock. The spring's radioactive elements pose no risk to humans. In fact, some studies have indicated that low-dose exposure to radiation has a hormetic effect that stimulates the body's immune system and promotes health.