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Two Cretaceous cauldrons in the central Chugoku District, SW Japan -the Futakamiyama and Sakuto cauldrons-

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Cretaceous volcanic and plutonic rocks are widely distributed in the inner zone of Southwest Japan. Some cauldrons have been revealed in these volcanic rocks (Takeda and Imaoka, 1999; Igawa and Imaoka, 2001; Yamamoto, 2003; Yamada et al., 2005; Kishi et al. 2007.). However, in the middle Chugoku District, these volcanic rocks have not been described in detail, except the Niimi cauldron and the Kisa volcanic rocks (Sato et al., 1999; Matsumoto, 1994). We report the structure of the Futakamiyama and Sakuto cauldrons (Sato and Imaoka, 1992) in this district.
The infill of the Futakamiyama cauldron consists of trachytic andesite, a thick rhyolitic pyroclastic rocks (densely welded), and basaltic andesite lava, in ascending order. The Sakuto cauldron is mostly filled with the rhyolitic pyroclastic rocks. The andesitic and rhyolitic volcanic activities occurred in the Futakamiyama cauldron, while the Sakuto cauldron ejected only rhyolitic materials.
The Cretaceous volcanism is divided into about 105Ma: the stage of the Kanmon Group (Imaoka et al., 1993), 95~85Ma: the stage of the Shunan-Abu Group (Kishi et al., 2007; Yuge et al., 1998; Igawa and Imaoka, 2001) and 75~65Ma: the stage of the Gotsu, Aioi and Arima Group (Imaoka et al., 1982; Matsuura et al., 1995; Ozaki et al., 1995; Yamamoto et al., 2000). The volcanic region of 95~85Ma mainly occupied the western part of the Chyugoku Distruct, whereas that of 75~65Ma mainly lay in the eastern Chugoku District.
The Futakamiyama and Sakuto cauldrons were formed in the boundary zone of these regions. The age of the Futakamiyama cauldron has been believed to be 85Ma or more based on the intrusion of the Utano granite of 85Ma (Sato and Imaoka, 1992). However, the Utano granite is in fault contact with the Futakamiyama cauldron, and the intrusive relation between them is not observed. Accordingly, the ages of Futakamiyama and Sakuto cauldrons are unknown yet.

Keywords: cauldron, Futakamiyama, Sakuto