

Occurrence of fault gouge zones in- and around the epicentral area of the 2000 Tottori-ken Seibu earthquake

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We described mesostructural characteristics of faults and fault rocks in the epicentral area (aftershock zone) of the 2000 Tottori-ken Seibu earthquake (Mj 7.3) and the surrounding area. In the northwestern margin of the aftershock zone, gravel bed which contains volcanic rocks (Miocene?) is exposed. Many narrow fault gouge zones which steeply dip northwest are developed. The major slip sense is dextral-normal movement. While, along the Nichinan-ko segment which is to the southwest of the aftershock zone, wide fault gouge zones which steeply dip northeast are developed in Cretaceous-Paleogene granitic rocks. In these areas, correspondence of attitude and size (length and width) were found, between the fault gouge zones formed over geological time, topographic feature (lineament) and the fault geometry (aftershock distribution) in 2000.