Fault rocks along a low-activity fault (Komachi-Odani lineament) in the western Tottori Prefecture, Japan


We described meso- and microstructural characteristics of fault rocks along the Komachi-Odani lineament running parallel, about 9 km northeast, to the aftershock area of the 2000 Tottori-ken Seibu earthquake (Mj 7.3). Two trenches (Komachi and Odani sites) were excavated. Along the most recent ruptures in these sites, reddish brown fault gouges partly accompanied carbonate cement (fault core) and foliated cataclasites (surrounding damaged zone) occur. Based on structural analysis, sinistral movements are detected from the Komachi site and another three outcrops. These gouges may have formed under the deeper level and/or in the earlier age compared with the gouges along the 2000 earthquake faults and the Nichinanko lineament running parallel, about 6 km southwest.