Mesoscopic structure of the Nojima fault zone, Awaji Island, Southwest Japan

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Orientations and densities of small fault gouge zones and shear surfaces of outcrop scale were examined within 300 m of the southeastern side (Cretaceous granitic rocks) of the Nojima fault, Awaji Island, Southwest Japan. The fault gouge zones and shear surfaces strike NE-SW on the Nojima fault (D=0m), their strike change into N-S, NW-SE, E-W (D=50m), in order of their distance from the Nojima fault. The density of shear surfaces increases abruptly (over 80 surfaces per meter) within 30 m, and at a constant (about 10 surfaces per meter) far from the distance. Low angle surfaces tend to have low densities, and high angle surfaces tend to have high densities, only within 50 m. In conclusion, the thickness of the fracture zone of the Nojima fault (southeastern side) can be estimated at 50 m.

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