

Permeability structure of Yanagase fault

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Yanagase fault-zone at an outcrop in Simizuhori, Imajyou-cho, Nanjyou-gun, Fukui Pref., consists of 300-500 mm thick fault gouge and about 3 m thick fault breccia. We measured permeability of these fault rocks constituting the country rocks using the oscillation method with nitrogen pore pressure at effective pressures P_e to 100 MPa. Permeability k of fault gouge markedly decreases with increasing P_e and is below 10^{-19} m² at $P_e = 100$ MPa, and tends to stay at about the same level upon reduction in P_e .