

Average shear work estimation of Nojima fault from fission-track analytical data

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Zircon fission-track (FT) thermochronometry is suitable to provide the age of the seismogenic pseudotachylytes and to constrain the seismic histories of the faults in tectonically active regions because recent high-temperature and short-term annealing experiments indicate that spontaneous FTs in zircon are totally annealed at the temperature-time conditions of ordinary pseudotachylyte formation [Murakami et al., 2006]. Murakami and Tagami, [2004] determined zircon FT age of ~2 mm thick pseudotachylyte collected from the trench of Nojima fault, and found that the zircon FT system of the pseudotachylyte was totally reset at ~56 Ma. We apply the FT thermochronological data to estimate average shear work of the fault quantitatively.