

## Difference of Earthquake Characteristic between events in and outside the fracture zone of the 1984 Western Nagano Earthquake(2)

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The Ootaki seismic array consists of 48 stations with a sampling frequency of 10 KHz. It covers the whole focal area of the 1984 Western Nagano Earthquake with M6.8. Precise hypocenters for about 21,000 small earthquakes are determined by using P wave arrival times, which are measured with accuracy of about 1m sec. The average of RMS travel time residuals in the hypocenter location is 0.006 sec. We determined focal mechanisms for 6,141 events by using P wave polarity data more than 15 and stress drops for about 15,000 events by using seismograms recorded at a borehole station. It was shown from the distributions of focal mechanisms, stress drops and the characteristic of waveforms that there is a fault fracture zone along the fault zone of the main shock with thickness of 100 to 300m, where most events have strike slip faulting, low stress drop and unclear P wave onset. We found an earthquake whose fault is about 2km long and cuts the estimated fracture zone.