

The preliminary rupture of 2000 Tottori-ken seibu earthquake

Yasuhiro Umeda[1], Misako Hirata[2], Koji Yoshii[3], Shiro Ohmi[4], Kiyoshi Ito[5]

[1] DPRI Kyoto Univ., [2] School Sci.Engr.,Ritsumeikan Univ., [3] RCEP, DPRI, Kyoto Univ., [4] D.P.R.I., Kyoto Univ., [5] Disas. prev. Res. Inst, Kyoto Univ.

The earthquake with M_j 7.3 occurred in the western part of Tottori prefecture. A clear preliminary rupture preceding large rupture of the main shock was detected by KIK-net and other strong motion data. The duration time, $T=3$ second, satisfy the empirical relation $\text{Log}T=0.5M-3$. Magnitude 6 of preliminary rupture was estimated from the average velocity wave amplitude ratio of the preliminary and second rupture. After the preliminary rupture propagated 7 km to south-east and deep direction, second large rupture started.