SEISMOLOGY



Due to the long absence of near-fault observations, earthquake nucleation physics on Inatural faults remain poorly understood

The M_w 5.0 earthquake



- ◆Located in the Weiyuan Shale Gas Field, Sichuan Basin, China
- ◆A reverse faulting event strikes at NE with shallow hypocenter (4.7 km)
- ◆Near-fault stations with closest distance of 1.3 km

Fig. 2. Location of the M_w 5.0 earthquake with activation foreshocks and **aftershocks plotted.** $M_L \ge 3.5$ events are highlighted in stars.

Nucleation of An M_w 5.0 Earthquake: Fault Activation, Immediate Foreshocks and Seismic Nucleation Phase

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Pre-slip might be involved

Horizontal particle motions in three stations.

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