

Precise hypocenters of the earthquake swarm off the east coast of Izu peninsula in 1998, and its source mechanisms.

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Using the modified technique of the joint hypocenter determination and high precision readings of P and S onset times based on the waveform correlations, we re-examined the hypocenters of the earthquake swarm occurred in 1998, and found out the following points. 1) The main part of the earthquake swarm was located on the single thin circular plane. The normal direction of the plane coincided with that of the tectonic extension. 2) Aseismic area existed at the center of the plane. 3) Earthquakes occurred intermittently, and their locations migrated outward on the plane, sequentially. 4) Fault plane of each earthquake did not match with the planar alignment of the hypocenters. We proposed that the above characteristics are induced by the dike intrusion, and estimated its process.