On the base of the seismogenic zone in the Kakkonda geothermal area

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The base of the seismogenic zone is often explained by the brittle-plastic transition of the rock property due to temperature increase with depth. In the Kakkonda geothermal field, where NEDO has been conducting a project named "deep-seated geothermal resources survey", both detailed micro-earthquake locations and subsurface temperature distributions have been determined precisely. In that sense, the Kakkonda area is one of the best field for investigating the relationship between micro-earthquake focal depths and temperature. The distribution of micro-earthquakes and temperature are compared in detail and mechanisms which determine the base of the seismogenic zone are discussed in terms of (1)temperature distribution, (2)hydraulic property, and (3) stress field .