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Earthquake and stress around the inland active faults - in-situ stress measurements at Gofukuji and Hagiwara fault -

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Earthquakes occur when the shear stress accumulated and exceeds the shear strength on the fault plane. We think the distribution of stress around the fault is important for the earthquake forecasting. We reports results of in-situ stress measurements at Gofukuji and Hagiwara fault. As for the Gofukuji fault, more the 1000 years have passed and the forthcoming earthquake is regarded to be impending. After The 2011 off the Pacific coast of Tohoku Earthquake, a large earthquake occurred near the Gofukuji fault. The Hagiwara fault also does not generate earthquake for more than 1000 years. In addition, due to effects of the 2011 off the Pacific coast of Tohoku Earthquake, the long term probability of earthquake occurrence on this fault might become to be higher than that before the earthquake (Headquarters for Earthquake Research Promotion 2012). It is considered the stress states around the inland active faults are significant to forecast the forthcoming earthquake.

Keywords: In-situ stress measurement, Earthquake occurrence, Inland active fault, Gofukuji fault, Hagiwara fault