

Basement configuration of Osaka basin based on dislocation model by Uemachi and surrounding faults

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The N-S trending 42-km-long Uemachi faults traverse in the central part of the Osaka city. The Uemachi faults have been investigated for countermeasures against earthquake disaster. The Ministry of Education, Culture, Sports, Science and Technology started the project to survey of the Uemachi faults. The Disaster Prevention Institute of Kyoto University is carried out various surveys from 2009 to 2012 for 3 years. Kusumoto et al. (2001) reported that surrounding faults enable to form the similar basement relief without the Uemachi faults model based on a dislocation model. We performed various parameter studies for dislocation model, which were designed based on the distribution of the real faults. The model was consisted 11 faults, the Rokko-Awaji, ATL, MTL, Ikoma, Eastern Nara, Osaka-wan, Kongo, the North and South Uemachi faults and, Sakuragawa and Suminoe flexures. The dislocation was calculated based on the Okada et al. (1985). The results show the similar basement displacement pattern to the actual basement configuration.

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