



LIQUEFACTION POTENTIAL ESTIMATION BASED ON THE 7.5-ARC-SECOND JAPAN ENGINEERING GEOMORPHOLOGIC CLASSIFICATION MAP

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ABSTRACT: This study is examined the probability of liquefaction occurrence in terms of seismic intensities for each geomorphologic classification unit in the Japan Engineering Geomorphologic Classification Map based on the dataset of strong ground motion maps and the liquefied sites during the past nine earthquakes. The liquefaction probability functions of geomorphologic conditions are proposed based on cumulative normal distribution. Finally, the model was applied to the hypothetical Tonankai-Nankai earthquake and the liquefaction potential map with 250 m grid-cells was estimated.

Key Words: Liquefaction Probability, Geomorphologic Condition, Strong Ground Motion, Seismic Intensity, Interpolation, 7.5-arc-second Japan Engineering Geomorphologic Classification Map