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Dynamic properties of soils of the Chuseki-so from a sedimentary environments viewpoint

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An earthquake causes serious damage to infrastructures, and it cannot be avoided unfortunately in Japan. An earthquake hazard is strongly related to the soil mechanics properties, such as water content and grain size. However, the relationship between geological structure and the soil mechanics properties in Chuseki-so, which is the latest Pleistocene-Holocene incised valley fills, have not been understood. Therefore, it is important to apply geological structure to geotechnical engineering of urban earthquake hazard, especially Nakagawa and Arakawa lowland. Here, we discuss dynamic behavior of soil based on shear modulus, G , G_0 and G_{max} , measured by cyclic undrained triaxial tests and bender element.

Keywords: Chuseki-so