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Determination of Small Shear Modulus of Clayey Sand Using Bender Element Test

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Abstract : In this article, the results of a series of carefully conducted laboratory test program were represented to determine the small strain shear modulus of sand mixed with a range of kaolinite including zero to 30%. This was experimentally achieved using a triaxial cell equipped with bender element. Results indicate that small shear modulus tends to increase, while clay content decreases and effective confining pressure increases. The exponent of stress in the power model regression analysis was not sensitive to the amount of clay content for all sand clay mixtures, while coefficient A was directly affected by change in clay content.

Keywords : small shear modulus, bender element test, plastic fines, sand
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