# Documents

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**Bending responses of an exponentially graded simply-supported elastic/viscoelastic/elastic sandwich plate**

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## Abstract
The bending response for exponentially graded composite (EGC) sandwich plates is investigated. The three-layer elastic/viscoelastic/elastic sandwich plate is studied by using the sinusoidal shear deformation plate theory as well as other familiar theories. Four types of sandwich plates are considered taking into account the symmetry of the plate and the thickness of each layer. The effective moduli and Illyushin's approximation methods are used to solve the equations governing the bending of simply-supported EGC fiber-reinforced viscoelastic sandwich plates. Then numerical results for deflections and stresses are presented and the effects due to time parameter, aspect ratio, side-to-thickness ratio and constitutive parameter are investigated. © 2011 The Chinese Society of Theoretical and Applied Mechanics.

## Author Keywords
EGC;  sinusoidal plate theory;  symmetric sandwich plates;  viscoelasticity

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