

عنوان مقاله:

Buckling analysis of graphene nanosheets based on nonlocal elasticity theory

محل انتشار:

مجله بین المللی ابعاد نانو، دوره 2، شماره 4 (سال: 1391)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

This paper proposed analytical solutions for the buckling analysis of rectangular single-layered graphene sheets under in-plane loading on all edges simply is supported. The characteristic equations of the graphene sheets are derived and the analysis formula is based on the nonlocal Mindlin plate. This theory is considering both the small length scale effects and transverse shear deformation effect. Nonlocal elasticity theory takes into account the small length scale effects as examining nanostructures such as nanoplates. It is presented graphically that the small scale .or nonlocal effects on the nondimensional buckling loads in the presence of aspect ratio and buckling modes

کلمات کلیدی:

Buckling, Graphene Nanosheet, Nonlocal elasticity

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