

## عنوان مقاله:

Nonlinear vibration of embedded annular Boron Nitride sheets using DQM

## محل انتشار:

بیست و دومین کنفرانس سالانه بین‌المللی مهندسی مکانیک (سال: 1393)

تعداد صفحات اصل مقاله: 6

## نویسندگان:

H Rahimipour - Pars Oil and Gas Co, Iran

A Ghorbanpour Arani - Professor, Faculty of Mechanical Engineering, University of Kashan

R Kolahchi - PhD Student; Faculty of Mechanical Engineering, University of Kashan

## خلاصه مقاله:

One of the most promising materials for nanotechnology is annular Boron Nitride sheets (ABNSs). In this study, however, differential quadrature method (DQM) and nonlocal piezoelectricity theory are used to investigate the nonlinear vibration response of embedded singlelayered annular Boron Nitride sheets (SLABNSs). The interactions between the SLABNSs and its surrounding elastic medium are simulated by nonlinear Pasternak foundation. A detailed parametric study is conducted to elucidate the influences of the nonlocal parameter, elastic medium, temperature change and maximum amplitude on the nonlinear frequency of the SLABNSs. The results are in good agreement with the previous researches.

## کلمات کلیدی:

Nonlinear vibration; SLABNS; DQM; nonlocal piezoelectricity theory; Nonlinear elastic medium

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/278007>

