

## عنوان مقاله:

Buckling Analysis of Cantilever Nanoactuators Immersed in an Electrolyte: A Close Form Solution Using Duan- Rach Modified Adomian Decomposition Method

## محل انتشار:

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## خلاصه مقاله:

A new modified Adomian Decomposition Method (ADM) is utilized to obtain an analytical solution for buckling of the nanocantilever actuators immersed in liquid electrolytes. The nanoactuators in electrolytes are subject to different nonlinear forces including ionic concentration, van der Waals, external voltage and electrochemical forces. The Duan–Rach modified Adomian decomposition method is utilized to obtain a full explicit solution for the buckling of nanoactuators free of any undetermined coefficients. The results are compared with the results of Wazwas ADM as well as the results of a finite element method available in the literature and found in excellent agreement.

## کلمات کلیدی:

Nanoactuator; Duan and Rach ADM; Analytic Solution; Electrolyte

## لینک ثابت مقاله در پایگاه سیویلیکا:

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