

Accepted Manuscript

Size-dependent three-dimensional free vibration of rotating functionally graded microbeams based on a modified couple stress theory

Jianshi Fang , Jianping Gu , Hongwei Wang

PII: S0020-7403(17)32431-1
DOI: [10.1016/j.ijmecsci.2017.12.028](https://doi.org/10.1016/j.ijmecsci.2017.12.028)
Reference: MS 4092



To appear in: *International Journal of Mechanical Sciences*

Received date: 1 September 2017
Revised date: 24 November 2017
Accepted date: 18 December 2017

Please cite this article as: Jianshi Fang , Jianping Gu , Hongwei Wang , Size-dependent three-dimensional free vibration of rotating functionally graded microbeams based on a modified couple stress theory, *International Journal of Mechanical Sciences* (2017), doi: [10.1016/j.ijmecsci.2017.12.028](https://doi.org/10.1016/j.ijmecsci.2017.12.028)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- A three-dimensional model of rotating functionally graded microbeams is established.
- Modified couple stress theory and Hamilton's principle are used to derive the model.
- The size-dependent model contains the von Kármán geometric nonlinearity.
- The influence of size effect on dynamics is studied combined with other parameters.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/7173899>

Download Persian Version:

<https://daneshyari.com/article/7173899>

[Daneshyari.com](https://daneshyari.com)