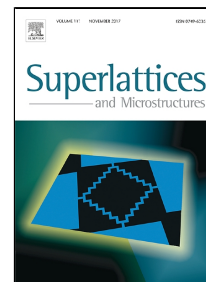


# Accepted Manuscript

Monte Carlo simulation of magnetic properties of a ferrimagnetic nanoisland with hexagonal prismatic core-shell structure

Wei Wang, Zhou Peng, Shan-shan Lin, Qi Li, Dan Lv, Sen Yang



PII: S0749-6036(17)32552-1  
DOI: 10.1016/j.spmi.2017.10.041  
Reference: YSPMI 5335  
To appear in: *Superlattices and Microstructures*  
Received Date: 24 October 2017  
Revised Date: 31 October 2017  
Accepted Date: 31 October 2017

Please cite this article as: Wei Wang, Zhou Peng, Shan-shan Lin, Qi Li, Dan Lv, Sen Yang, Monte Carlo simulation of magnetic properties of a ferrimagnetic nanoisland with hexagonal prismatic core-shell structure, *Superlattices and Microstructures* (2017), doi: 10.1016/j.spmi.2017.10.041

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 hexagonal prismatic core-shell ferrimagnetic nanoisland with spin-2 and spin-5/2 has been proposed.
- Effects of the single-ion anisotropies, the exchange couplings and temperature on magnetic properties have been investigated.
- Magnetization, susceptibility and internal energy have been discussed.
- The phase diagrams in different parameter planes were obtained.
- Multiple hysteresis loops behaviors such as double, triple and quadruple hysteresis loops have been discovered.

Download English Version:

<https://daneshyari.com/en/article/7939239>

Download Persian Version:

<https://daneshyari.com/article/7939239>

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