

## Accepted Manuscript

Modelling the structure of disordered cerium oxide thin films

José Juan Peña Leal, Rafael A. Barrio

PII: S0378-4371(17)30462-4

DOI: <http://dx.doi.org/10.1016/j.physa.2017.04.152>

Reference: PHYSA 18254

To appear in: *Physica A*

Received date: 17 February 2017

Revised date: 25 April 2017

Please cite this article as: J.J. Peña Leal, R.A. Barrio, Modelling the structure of disordered cerium oxide thin films, *Physica A* (2017), <http://dx.doi.org/10.1016/j.physa.2017.04.152>

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

- This work represents an application of the Stochastic Matrix Method (SMM) to the growth of rare earth materials.
- It is the first time that the oxidation state of a mixed valence compound is predicted theoretically depending on the conditions during the growth of the material.
- The model makes predictions that could be verified by experiments.
- The material under study is of great technological importance and has many applications.

Download English Version:

<https://daneshyari.com/en/article/5102732>

Download Persian Version:

<https://daneshyari.com/article/5102732>

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