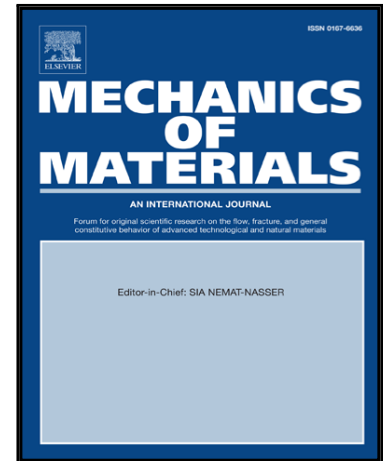


## Accepted Manuscript

Modeling of thermal and lattice misfit stresses within a thermal barrier coating

Hani Abu El Hawa , Abir Bhattacharyya , David Maurice

PII: S0167-6636(17)30631-2  
DOI: [10.1016/j.mechmat.2018.03.009](https://doi.org/10.1016/j.mechmat.2018.03.009)  
Reference: MECMAT 2857



To appear in: *Mechanics of Materials*

Received date: 8 September 2017  
Revised date: 9 March 2018  
Accepted date: 27 March 2018

Please cite this article as: Hani Abu El Hawa , Abir Bhattacharyya , David Maurice , Modeling of thermal and lattice misfit stresses within a thermal barrier coating , *Mechanics of Materials* (2018), doi: [10.1016/j.mechmat.2018.03.009](https://doi.org/10.1016/j.mechmat.2018.03.009)

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

- Lattice orientation and lattice misfit affect interfacial stresses and defects
- High defect concentrations are expected to enable delamination via thermal stresses
- Deposition temperatures impact which interfaces experience higher stresses in use
- Magnitude of stress range, but not mean stress, function only of operating conditions

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/7178515>

Download Persian Version:

<https://daneshyari.com/article/7178515>

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