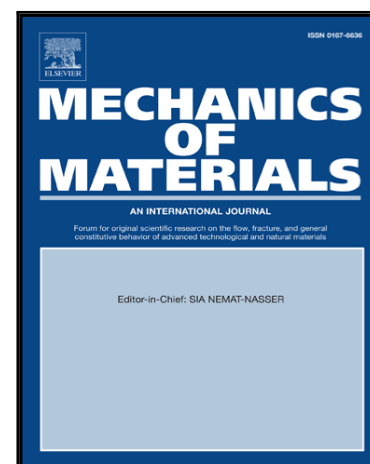


Accepted Manuscript

Laminate-based modelling of single and polycrystalline ferroelectric materials – application to tetragonal barium titanate

D.K. Dusthakar, A. Menzel, B. Svendsen

PII: S0167-6636(17)30195-3
DOI: [10.1016/j.mechmat.2017.10.005](https://doi.org/10.1016/j.mechmat.2017.10.005)
Reference: MECMAT 2806



To appear in: *Mechanics of Materials*

Received date: 17 March 2017
Revised date: 29 September 2017
Accepted date: 10 October 2017

Please cite this article as: D.K. Dusthakar, A. Menzel, B. Svendsen, Laminate-based modelling of single and polycrystalline ferroelectric materials – application to tetragonal barium titanate, *Mechanics of Materials* (2017), doi: [10.1016/j.mechmat.2017.10.005](https://doi.org/10.1016/j.mechmat.2017.10.005)

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

- Development of laminate-based models to study single crystalline ferroelectric materials
- A homogenisation procedure based on random orientation of the individual grains in a polycrystalline aggregate is considered to study the polycrystalline ferroelectric material response
- Model parameter identification based on experimental single crystal tetragonal ferroelectric hysteretic response
- The model as well as the algorithmic scheme are verified by solving representative boundary value problems

Download English Version:

<https://daneshyari.com/en/article/7178580>

Download Persian Version:

<https://daneshyari.com/article/7178580>

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