

Evaluation of thermal stability in spectrally selective few-layer metallo-dielectric structures for solar thermophotovoltaics

Makoto Shimizu , Asaka Kohiyama , Hiroo Yugami

PII: S0022-4073(17)30840-3  
DOI: [10.1016/j.jqsrt.2018.02.037](https://doi.org/10.1016/j.jqsrt.2018.02.037)  
Reference: JQSRT 6032



To appear in: *Journal of Quantitative Spectroscopy & Radiative Transfer*

Received date: 9 November 2017  
Revised date: 24 January 2018  
Accepted date: 9 February 2018

Please cite this article as: Makoto Shimizu , Asaka Kohiyama , Hiroo Yugami , Evaluation of thermal stability in spectrally selective few-layer metallo-dielectric structures for solar thermophotovoltaics, *Journal of Quantitative Spectroscopy & Radiative Transfer* (2018), doi: [10.1016/j.jqsrt.2018.02.037](https://doi.org/10.1016/j.jqsrt.2018.02.037)

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**

- An extremely high-thermal-stability few-layer structure is proposed.
- A  $\text{HfO}_2$  layer on a Mo substrate is more stable than that on a W substrate at 1473 K.
- The degradation of the structure at 1473 K is due to Mo thin-film oxidation.
- The potential stability of few-layer structures for high-temperature applications.

Download English Version:

<https://daneshyari.com/en/article/7845994>

Download Persian Version:

<https://daneshyari.com/article/7845994>

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