

Accepted Manuscript

The ion-irradiation tolerance of the pyrochlore to fluorite $\text{Ho}_{(x)}\text{Yb}_{(2-x)}\text{TiO}_5$ and Er_2TiO_5 compounds: A TEM comparative study using both *in-situ* and bulk *ex-situ* irradiation approaches

Robert D. Aughterson, Gregory R. Lumpkin, Katherine L. Smith, Massey de los Reyes, Joel Davis, Maxim Avdeev, Mark C. Ridgway, Julie M. Cairney

PII: S0022-3115(17)31834-2

DOI: [10.1016/j.jnucmat.2018.05.026](https://doi.org/10.1016/j.jnucmat.2018.05.026)

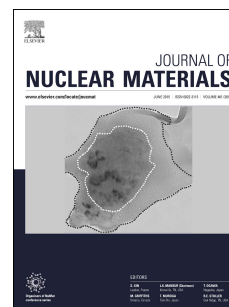
Reference: NUMA 50955

To appear in: *Journal of Nuclear Materials*

Received Date: 27 December 2017

Revised Date: 11 April 2018

Accepted Date: 8 May 2018



Please cite this article as: R.D. Aughterson, G.R. Lumpkin, K.L. Smith, M.d.I. Reyes, J. Davis, M. Avdeev, M.C. Ridgway, J.M. Cairney, The ion-irradiation tolerance of the pyrochlore to fluorite $\text{Ho}_{(x)}\text{Yb}_{(2-x)}\text{TiO}_5$ and Er_2TiO_5 compounds: A TEM comparative study using both *in-situ* and bulk *ex-situ* irradiation approaches, *Journal of Nuclear Materials* (2018), doi: 10.1016/j.jnucmat.2018.05.026.

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.

The ion-irradiation tolerance of the pyrochlore to fluorite $\text{Ho}_{(x)}\text{Yb}_{(2-x)}\text{TiO}_5$ and Er_2TiO_5 compounds: a TEM comparative study using both *in-situ* and bulk *ex-situ* irradiation approaches.

Robert D. Aughterson^{a, c, *}, Gregory R. Lumpkin^a, Katherine L. Smith^a,
Massey de los Reyes^a, Joel Davis^a, Maxim Avdeev^a, Mark C. Ridgway^b,
Julie M. Cairney^c

^a Australian Nuclear Science and Technology Organisation, Lucas Heights,
NSW 2234, Australia

^b Centre for Science and Engineering of Materials, Australian National
University, Canberra, ACT 0200, Australia

^c Australian Centre for Microscopy and Microanalysis, The University of
Sydney, NSW 2006, Australia

*Corresponding author: Robert D. Aughterson,

Email: roa@ansto.gov.au, Phone: +61 29717 3600

Gregory Lumpkin: gregory.lumpkin@ansto.gov.au

Katherine Smith: kath.smith@dfat.gov.au

Massey de los Reyes: massey.delosreyes@sa.gov.au

Joel Davis: joel.davis@ansto.gov.au

Maxim Avdeev: maxim.avdeev@ansto.gov.au

Julie Cairney: julie.cairney@sydney.edu.au

Download English Version:

<https://daneshyari.com/en/article/7963146>

Download Persian Version:

<https://daneshyari.com/article/7963146>

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