

Single Crystal Fibers of Yttria-Stabilized Cubic Zirconia with Ternary Oxide Additions



Single Crystal Fibers of Yttria-Stabilized Cubic Zirconia with Ternary Oxide Additions

NASA Technical Reports Server
(NTRS), et al., F. J. Ritzert

Filesize: 5.78 MB

Reviews

I actually began looking over this ebook. I could possibly comprehended everything using this published e publication. You wont feel monotony at at any time of your time (that's what catalogues are for regarding if you request me).
(Arnold Nienow)

SINGLE CRYSTAL FIBERS OF YTTRIA-STABILIZED CUBIC ZIRCONIA WITH TERNARY OXIDE ADDITIONS



[DOWNLOAD PDF](#)

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 38 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. Single crystal fibers of yttria (Y₂O₃)-stabilized cubic zirconia, (ZrO₂) with ternary oxide additions were grown using the laser float zone fiber processing technique. Ternary additions to the ZrO₂-Y₂O₃ binary system were studied aimed at increasing strength while maintaining the high coefficient of thermal expansion of the binary system. Statistical methods aided in identifying the most promising ternary oxide candidate (Ta₂O₅, Sc₂O₃, and HfO₂) and optimum composition. The yttria, range investigated was 14 to 24 mol and the ternary oxide component ranged from 1 to 5 mol. Hafnium oxide was the most promising ternary oxide component based on 816 C tensile strength results and ease of fabrication. The optimum composition for development was 81 ZrO₂-14 Y₂O₃-5 HfO₂ based upon the same elevated temperature strength tests. Preliminary results indicate process improvements could improve the fiber performance. We also investigated the effect of crystal orientation on strength. This item ships from La Vergne, TN. Paperback.

- [Read Single Crystal Fibers of Yttria-Stabilized Cubic Zirconia with Ternary Oxide Additions Online](#)
- [Download PDF Single Crystal Fibers of Yttria-Stabilized Cubic Zirconia with Ternary Oxide Additions](#)

Related PDFs



Animology: Animal Analogies

Sylvan Dell Publishing. Paperback. Book Condition: New. Cathy Morrison (illustrator). Paperback. 32 pages. Dimensions: 9.8in. x 8.4in. x 0.4in. Compare and contrast different animals through predictable, rhyming analogies. Find the similarities between even the most incompatible...

[Save ePub »](#)



Good Night, Zombie Scary Tales

Feiwel & Friends. Paperback. Book Condition: New. Iacopo Bruno (illustrator). Paperback. 112 pages. Dimensions: 8.2in. x 5.4in. x 0.2in. Welcome. Have a seat. Ignore the shambling undead outside. Let us tell you a story. But be...

[Save ePub »](#)



The Whale Tells His Side of the Story Hey God, I've Got Some Guy Named Jonah in My Stomach and I Think I'm Gonna Throw Up

B&H Kids. Hardcover. Book Condition: New. Cory Jones (illustrator). Hardcover. 32 pages. Dimensions: 9.1in. x 7.2in. x 0.3in. Oh sure, well all heard the story of Jonah and the Whale a hundred times. But have we...

[Save ePub »](#)



God Loves You. Chester Blue

Henry and George Press. Paperback. Book Condition: New. Ursula Andrejczuk (illustrator). Paperback. 140 pages. Dimensions: 8.0in. x 5.2in. x 0.3in. BEAUTIFUL NEW ILLUSTRATIONS BRING THE STORY TO LIFE! A charming book about a mysterious bear that shows...

[Save ePub »](#)



Yearbook Volume 15

RareBooksClub. Paperback. Book Condition: New. This item is printed on demand. Paperback. 58 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. This historic book may have numerous typos and missing text. Purchasers can usually download a free...

[Save ePub »](#)