


[DOWNLOAD](#)


## Universal Behavior of a Cyclic Oxidation Model

By James L. Smialek

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 26 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. A mathematical model has been generated to represent the iterative, discrete growth and spallation processes associated with cyclic oxidation. Parabolic growth kinetics ( $k(\text{sub } p)$ ) over and a constant spall area ( $F(\text{sub } A)$ ) were assumed, with spalling occurring interfacially at the thickest regions of the scale. Although most models require numerical techniques, the regularity and simplicity of this progression permitted an approximation by algebraic expressions. Normalization could now be performed to reflect all parametric effects, and a universal cyclic oxidation response was generated:  $W(\text{sub } u) = 12.3J(\text{sub } u)^{12} J(\text{sub } u)^{32}$  where  $W$ , is weight change normalized by the maximum and  $J(\text{sub } u)$  is the cycle number normalized by the number to reach maximum. Similarly, the total amount of metal consumed was represented by a single normalized curve. The factor  $(S(\text{sub } c) - 1) \sqrt{F(\text{sub } A) k(\text{sub } p) \Delta t}$  was identified as a general figure of merit, where  $S(\text{sub } c)$  is the mass ratio of oxide to oxygen and  $\Delta t$  is the cycle duration. A cyclic oxidation failure map was constructed, in normalized  $k(\text{sub } p) - F(\text{sub } A)$  space, as defined by the locus of points corresponding...



[READ ONLINE](#)  
[ 7.45 MB ]

### Reviews

*Thorough information for publication lovers. it was actually writtern extremely properly and useful. I found out this publication from my i and dad suggested this book to learn.*

-- **Dr. Garnett McLaughlin II**

*A new electronic book with an all new standpoint. It usually fails to charge too much. Its been printed in an exceedingly basic way in fact it is simply following i finished reading this book through which basically altered me, affect the way in my opinion.*

-- **Dr. Amie Bogisich**

## Related eBooks



### **The Red Leather Diary: Reclaiming a Life Through the Pages of a Lost Journal (P.S.)**

Harper Perennial. PAPERBACK. Book Condition: New. 0061256781 Never Read-12+ year old Paperback book with dust jacket-may have light shelf or handling wear-has a price sticker or price written inside front or back cover-publishers mark-Good Copy- I ship FAST with FREE tracking!! \*...



### **With Chatwin: Portrait of a Writer**

Knopf. Hardcover. Book Condition: New. 0679410333 Never Read-12+ year old Hardcover book with dust jacket-may have light shelf or handling wear-has a price sticker or price written inside front or back cover-publishers mark-Good Copy- I ship FAST with FREE tracking!! \* I...



### **Hoops to Hippos!: True Stories of a Basketball Star on Safari**

National Geographic Kids, United Kingdom, 2015. Paperback. Book Condition: New. 190 x 130 mm. Language: English . Brand New Book. NBA star Boris Diaw of the San Antonio spurs takes young readers on safari as he explores his off-court passion: wildlife photography!...



### **The Diary of a Goose Girl (Illustrated Edition) (Dodo Press)**

Dodo Press, United Kingdom, 2007. Paperback. Book Condition: New. Claude A Shepperson (illustrator). Illustrated. 229 x 152 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Kate Douglas Wiggin, nee Smith (1856-1923) was an American children s author and educator....



### **The Diary of a Goose Girl (Illustrated 1902 Edition)**

Echo Library, United States, 2008. Paperback. Book Condition: New. Illustrated. 203 x 127 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Kate Douglas Wiggin, nee Smith (1856-1923) was an American children s author and educator. She was born in...



### **The Romance of a Christmas Card (Illustrated Edition) (Dodo Press)**

Dodo Press, United Kingdom, 2007. Paperback. Book Condition: New. Alice Erle Hunt (illustrator). Illustrated. 229 x 147 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Kate Douglas Wiggin, nee Smith (1856-1923) was an American children s author and educator....