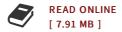




# Laser Pulse Heating of Surfaces and Thermal Stress Analysis

By Yilbas, Bekir S. / Al-Dweik, Ahmad Y.

Condition: New. Publisher/Verlag: Springer, Berlin | This book introduces laser pulse heating and thermal stress analysis in materials surface. Analytical temperature treatments and stress developed in the surface region are also explored. The book will help the reader analyze the laser induced stress in the irradiated region and presents solutions for the stress field. Detailed thermal stress analysis in different laser pulse heating situations and different boundary conditions are also presented. Written for surface engineers. | PREFACE.- ACKNOWLEDGEMENTS.-INTRODUCTION.- EQUILIBRIUM LASER PULSE HEATING AND THERMAL STRESS ANALYSIS.-INTRODUCTION.- STEP INPUT LASER PULSE HEATING.- STRESS FREE BOUNDARY AT THE SURFACE.- STRESS CONTINUITY BOUNDARY AT THE SURFACE.- TIME EXPONENTIALLY VARYING LASER PULSE HEATING.- STRESS FREE BOUNDARY AT THE SURFACE.- STRESS FREE BOUNDARY AND CONVECTION AT THE SURFACE.- STRESS BOUNDARY AT THE SURFACE.- ENTROPY ANALYSIS DUE TO THERMAL STRESS FIELD.- FINDINGS AND DISCUSSIONS.- STEP INPUT PULSE HEATING.-TIME EXPONENTIALLY VARYING LASER PULSE HEATING.- ENTROPY ANALYSIS DUE TO THERMAL STRESS FIELD.- ANALYTICAL SOLUTION OF CATTANEO AND THERMAL STRESS EQUATIONS.-INTRODUCTION.- SURFACE HEAT SOURCE CONSIDERATION.- STEP INPUT PULSE HEATING.-EXPONENTIAL PULSE HEATING.- VOLUMETRIC SOURCE CONSIDERATION.- STEP INPUT PULSE HEATING.- EXPONENTIAL PULSE HEATING.- ENTROPY ANALYSIS.- FINDINGS AND DISCUSSION.-SURFACE HEAT SOURCE CONSIDERATION.- VOLUMETRIC HEAT SOURCE CONSIDERATION.-...



## Reviews

This ebook is amazing. It can be rally interesting throgh looking at time. You may like how the author compose this ebook.

-- Nikko Bashirian

This ebook is amazing. I actually have read and i also am certain that i will going to read once more again down the road. I found out this pdf from my dad and i advised this book to discover.

-- Isaiah Swaniawski

## You May Also Like



## DK Readers Disasters at Sea Level 3 Reading Alone

DK CHILDREN. Paperback. Book Condition: New. Paperback. 32 pages. Dimensions: 8.8in. x5.7in. x0.2in.From fog, ice, and rocks to cannon fire and torpedo attacks--read the story of five doomed sea voyages and the fate of those who took part in them....



#### Fox at School: Level 3

Penguin Young Readers Group, United States, 1993. Paperback. Book Condition: New. James Marshall (illustrator). Reissue. 224 x 147 mm. Language: English. Brand New Book. Using their cache of already published easy-to-read books, Puffin launched their Easy-to-Read program. Favorite stories by such...



## Stories of Addy and Anna: Japanese-English Edition

Mohd Shahran Bin Daud, United States, 2015. Paperback. Book Condition: New. Siti Haziqah Samsul (illustrator). 244 x 170 mm. Language: Japanese . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This book is bilingual (Japanese-English) edition. Delightful, Colorful and Fun Learning Book for...



## Stories of Addy and Anna: Chinese-English Edition

Mohd Shahran Bin Daud, United States, 2015. Paperback. Book Condition: New. Siti Haziqah Samsul (illustrator). 244 x 170 mm. Language: Chinese . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. This book is bilingual (Japanese-English) edition. Delightful, Colorful and Fun Learning Book for...



The Healthy Lunchbox How to Plan Prepare and Pack Stress Free Meals Kids Will Love by American Diabetes Association Staff Marie McLendon and Cristy Shauck 2005 Paperback

Book Condition: Brand New. Book Condition: Brand New.



On the Go with Baby A Stress Free Guide to Getting Across Town or Around the World by Ericka Lutz 2002 Paperback

 $Book\,Condition; Brand\,New.\,Book\,Condition; Brand\,New.$