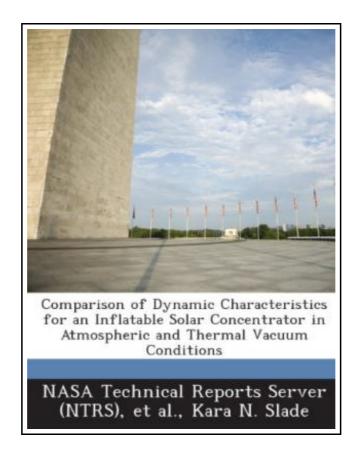
# Comparison of Dynamic Characteristics for an Inflatable Solar Concentrator in Atmospheric and Thermal Vacuum Conditions



Filesize: 4.35 MB

### Reviews

This is the very best book i actually have read till now. It is loaded with knowledge and wisdom I am just easily could get a satisfaction of reading a created ebook.

(Ena Huel)

# COMPARISON OF DYNAMIC CHARACTERISTICS FOR AN INFLATABLE SOLAR CONCENTRATOR IN ATMOSPHERIC AND THERMAL VACUUM CONDITIONS



BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 30 pages. Dimensions: 9.7in. x 7.4in. x 0.1in.Dynamic testing of an inflatable solar concentrator structure in a thermal vacuum chamber as well as in ambient laboratory conditions is described in detail. Unique aspects of modal testing for the extremely lightweight inflatable are identified, including the use of a noncontacting laser vibrometer measurement system. For the thermal vacuum environment, mode shapes and frequency response functions are compared for three different test article inflation pressures at room temperature. Modes that persist through all the inflation pressure regimes are identified, as well as modes that are unique for each pressure. In atmospheric pressure and room temperature conditions, dynamic measurements were obtained for the expected operational inflation pressure of 0. 5 psig. Experimental mode shapes and frequency response functions for ambient conditions are described and compared to the 0.5 psig results from the thermal vacuum tests. Only a few mode shapes were identified that occurred in both vacuum and atmospheric environments. This somewhat surprising result is discussed in detail, and attributed at least partly to 1.) large differences in modal damping, and 2.) significant differences in the mass of air contained by the structure, in the two environments. Results of this investigation point out the necessity of testing inflatable space structures in vacuum conditions before they can be launched. Ground testing in atmospheric pressure is not sufficient for predicting on-orbit dynamics of non-rigidized inflatable systems. This item ships from La Vergne, TN. Paperback.

- Read Comparison of Dynamic Characteristics for an Inflatable Solar Concentrator in Atmospheric and Thermal Vacuum Conditions Online
- Download PDF Comparison of Dynamic Characteristics for an Inflatable Solar Concentrator in Atmospheric and Thermal Vacuum Conditions

# You May Also Like



### **Animalogy: 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...

Read Book »



# The Whale Tells His Side of the Story Hey God, Ive Got Some Guy Named Jonah in My Stomach and I Think Im 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...

Read Book »



# 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...

Read Book »



# **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...

Read Book »



#### Molly on the Shore, BFMS 1 Study score

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 26 pages. Dimensions: 9.7in. x 6.9in. x 0.3in.Percy Grainger, like his contemporary Bela Bartok, was intensely interested in folk music and became a member of the English...

Read Book »



### Magnificat in D Major, Bwv 243 Study Score Latin Edition

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 70 pages. Dimensions: 9.8in. x 7.2in. x 0.3in.Bach composed the first version of this piece in 1723 using the key of E-flat major for the Christmas Vespers

Read ePub »



#### DK Readers Animal Hospital Level 2 Beginning to Read Alone

DK CHILDREN. Paperback. Book Condition: New. Paperback. 32 pages. Dimensions: 8.9in. x 5.8in. x 0.1in.This Level 2 book is appropriate for children who are beginning to read alone. When Jack and Luke take an injured

Read ePub »



#### DK Readers Plants Bite Back Level 3 Reading Alone

DK CHILDREN. Paperback. Book Condition: New. Paperback. 48 pages. Dimensions: 9.0in. x 5.8in. x 0.2in.With Eyewitness Readers, children will learn to read --then read to learn! There are plants that prickle, sting, or even munch

Read ePub »



#### Coronation Mass, K. 317 Vocal Score Latin Edition

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 56 pages. Dimensions: 9.6in. x 6.7in. x 0.1in.Otto Taubmanns classic vocal score of Mozarts Coronation Mass was first issued in the early 20th century and has become

Read ePub »



# Angels Among Us: 52 Humorous and Inspirational Short Stories: Lifes Outtakes - Year 7

Publishing Inspiration. Paperback. Book Condition: New. This item is printed on demand. Paperback. 132 pages. Dimensions: 9.0in. x 6.0in. x 0.3in.52 Humorous And Inspirational Short Stories!52 humorous and inspirational short stories from year 7 of

Read ePub »