MATERIALS AND STRUCTURES SYMPOSIUM (C2) Specialised Technologies, Including Nanotechnology (8)

Author: Mr. Michael Kio

National Space Research and Development Agency (NASRDA), United Kingdom, m.t.kio@cranfield.ac.uk

Dr. OLUFEMI ABGOOLA

National Space Research and Development Agency (NASRDA), Nigeria, agbula3@yahoo.com

MOLECULAR DYNAMIC SIMULATION OF HEAT TRANSFER OF GASES IN A SPACECRAFT HEATPIPE

Abstract

Statistical mechanics have been able to make us understand the connection between microscopic molecular motion and macroscopic dynamics. Potent tools for finding out about microscopic ranges in heat transfer can be obtained from the Molecular dynamics technique; this technique is suitable for gas, liquid and solid phase and its interfaces. This study seeks to show how gases are transported from one end of the heat pipe to another and how heat is distributed during such transfer using molecular dynamics technique.