Storming Media Pentagon Reports: Fast. Definitive. Complete.

Home About Us Contact Us View Cart My Account FAQ

username LOGIN New Account » Forgot Password? Aluminum Oxide GO Advanced Search »

Ads by Google

Take FTIR out of the lab
See our small, portable and rugged FTIR's
www.a2technologies.com

Infrared Pyrometers
Measure Critical Temps in Hard to Reach Places. Save Time and Money!
www.Raytek.com

Temperature Detectors
Low-Cost, High-Performance Heat Infrared Imagers. Get Free Book!
www.Fluke.com/Thermal

Laser Distance Sensors
Accurate measuring with MRL Laser Distance Sensors
www.metrologyresource.

Heat Flux and Infrared Spectral Measurements of Burning SRM Propellant (Preprint)

Authors: Marty Venner; James Parker; William McKeon; AIR FORCE RESEARCH LAB EDWARDS AFB CA PROPULSION DIRECTORATE

Abstract: On 23 August 2005 the Air Force Research Laboratory (AFRL) Propulsion Directorate at Edwards AFB conducted an open air burn of over 2000 kg of Titan IV solid rocket motor propellant. Multiple remote sensors were deployed to measure the heat flux and spectral emissions during the burn. The heat flux data was utilized to help determine the hazard classification for the propellant. An average normalized irradiance of 1.62 kW/m2 was obtained during a nominal portion of the burn and supports a classification of 1.4. A Fourier Transform Infrared (FTIR) spectrometer collected data over a spectral range of 1.4 - 14 micrometers. Those data show strong gaseous emissions from carbon dioxide, water, and hydrogen chloride as well as a continuum emission component due to the aluminum oxide particulates.

Adobe PDF - $18.95
Printed Format - $20.95
ADD TO CART
Please check the box for the format you wish to order.

Shipping Terms
About Electronic Delivery

Email This Abstract

Limitations:	APPROVED FOR PUBLIC RELEASE
Description:	Technical paper
Pages:	11
Report Date:	16 JUN 2006
Report Number:	A964654

Keywords relating to this report:

- *HEAT FLUX
- *INFRARED SPECTRA
- *REMOTE DETECTORS
- *SOLID PROPELLANT ROCKET ENGINES
- CARBON DIOXIDE
- FOURIER TRANSFORMATION
- INFRARED RADIATION
- MEASUREMENT
- MULTISENSORS

« Back to search

© 2001-2010 Storming Media LLC. All rights reserved.