

Ultrasonic and optical stimulation in IR thermographic NDT of impact damage in carbon composites

by V. Vavilov*, W. Świdorski** and D. Derusova*

* *National Research Tomsk Polytechnic University, Russia 634028, Tomsk, Savinykh St., 7, vavilov@tpu.ru*

** *Military Institute of Armament Technology, 05-220 Zielonka, Poland, waldemar.swiderski@wp.pl*

Abstract

A thermo mechanical problem of internal friction in zero-thickness cracks is numerically solved, and the theoretical predictions are qualitatively compared with experimental data. Some examples of the characterization of impact damage by applying both ultrasonic and optical material stimulation are presented.

This paper was published in the QIRT Journal 12.2