

Frequency-Modulated Wave Thermography for Non-Destructive Characterisation

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Abstract

A new, quantitative, whole field, non-contact and nondestructive technique for sub-surface defect detection is presented based on frequency modulated thermal wave imaging (FMTWI). Electro-thermal modeling and MATLAB-SIMULINK simulation has been carried out for the proposed technique. Experimental results for both lock-in thermography (LT) and frequency modulated thermal wave imaging are reported, and comparisons made.

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