

Abstracts

Nondestructive Microwave Evaluation of Ceramics

A.J. Bahr. "Nondestructive Microwave Evaluation of Ceramics." 1978 *Transactions on Microwave Theory and Techniques* 26.9 (Sep. 1978 [T-MTT]): 676-683.

The ability of microwave energy to penetrate some kinds of ceramic materials at frequencies of 100 GHz and above suggests that microwave techniques may be useful for the nondestructive evaluation (NDE) of such materials. This paper presents experimental results that demonstrate the basic feasibility of using these techniques to detect and locate various types of inclusions (including voids) in silicon nitride Si₃N₄. Inclusions as small as 0.005 in in diameter have been detected.

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