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High- sensitivity capacitance method for measuring thermal diffusivity and thermal expansion: results on aluminum and copper / SPARAVIGNA A.; GIACHELLO G.; OMINI M.; STRIGAZZI A.. - In: INTERNATIONAL JOURNAL OF THERMOPHYSICS. - ISSN 0195-928X. - 11(1990), pp. 1111-1111.

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### High-sensitivity capacitance method for measuring thermal diffusivity and thermal expansion: Results on aluminum and copper

Journal International Journal of Thermophysics  
 Publisher Springer Netherlands  
 ISSN 0195-928X (Print) 1572-9567 (Online)  
 Issue Volume 11, Number 6 / November, 1990  
 DOI 10.1007/BF00500564  
 Pages 1111-1126  
 Subject Collection Physics and Astronomy  
 SpringerLink Date Monday, December 06, 2004

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**Received:** 13 November 1989

**Abstract** Thermal diffusivity and thermal expansion in high-conducting solids can be measured by means of a capacitance method, which turns out to be simple, reliable, and accurate and yields the first property with an accuracy of  $\sim 1\%$  and the second one with an accuracy of  $\sim 2\%$ . Preliminary results, which are consistent with the literature, have been obtained on pure aluminum (99.999%) and on commercial copper, both at near room temperature.

**Key words** capacitance method - thermal diffusivity - thermal expansion

References secured to subscribers.

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