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*Short Communication*

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**THERMOPHYSICAL PROPERTY DETERMINATION  
OF HIGH TEMPERATURE ALLOYS BY THERMAL  
ANALYSIS**

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**Abstract**

Differential scanning calorimetric measurements to determine solidus and liquidus temperatures and latent heat of fusion of two high temperature materials, PWA1484 and an experimental gamma titanium aluminide alloy, are presented. The solidus and liquidus temperatures of PWA1484 are 1340 and 1404°C. The solidus and liquidus temperatures of the titanium aluminide alloy are 1453 and 1522°C. Solidus and liquidus temperatures determined from actual heating and cooling curves, which were measured using imbedded thermocouples and analyzed by a pseudo-differential thermal analysis technique are found to be in good agreement with the differential scanning calorimetric measurements.

**Keywords:** DSC, DTA, latent heat of fusion, melting, PWA1484, solidification, titanium aluminide