

# The dissociation pressure of $\gamma$ -phase titanium hydride at 20-70 degrees C

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## Abstract

Thin films of titanium were allowed to interact with a continuous flow of hydrogen until they were saturated ( $r(H/Ti)=2$ ). Their dissociation pressure was  $1.2 \cdot 10^{-3}$  Torr at 20 degrees C and  $4 \cdot 10^{-2}$  Torr at 70 degrees C. These pressures are much higher than had been expected by previous workers, which could account for some of the anomalies in published work on the FCC-FCT transition, and the NMR and magnetic susceptibility data for titanium hydride.

## Indexed keywords

**Engineering controlled terms:** CRYSTALLOGRAPHY; HYDROGEN; MAGNETIC RESONANCE

**Engineering uncontrolled terms:** DISSOCIATION PRESSURE; PHASE TRANSITIONS; TITANIUM HYDRIDES

**Engineering main heading:** TITANIUM AND ALLOYS