



MONASH University



**CSIRO Materials Science & Engineering
and
Monash University, Department of Materials Engineering**

would like to invite you to attend a talk on

“Alloy and process development of Ti and TiAl-based alloys”

**Professor Mike Loretto
Interdisciplinary Research Centre (IRC) in Materials
The University of Birmingham**

**CSIRO Materials Science and Engineering
North Seminar Room, Clayton
Monday 8 December 2008
2.30pm**

(Visitors must sign in at the reception as shown on the attached map)

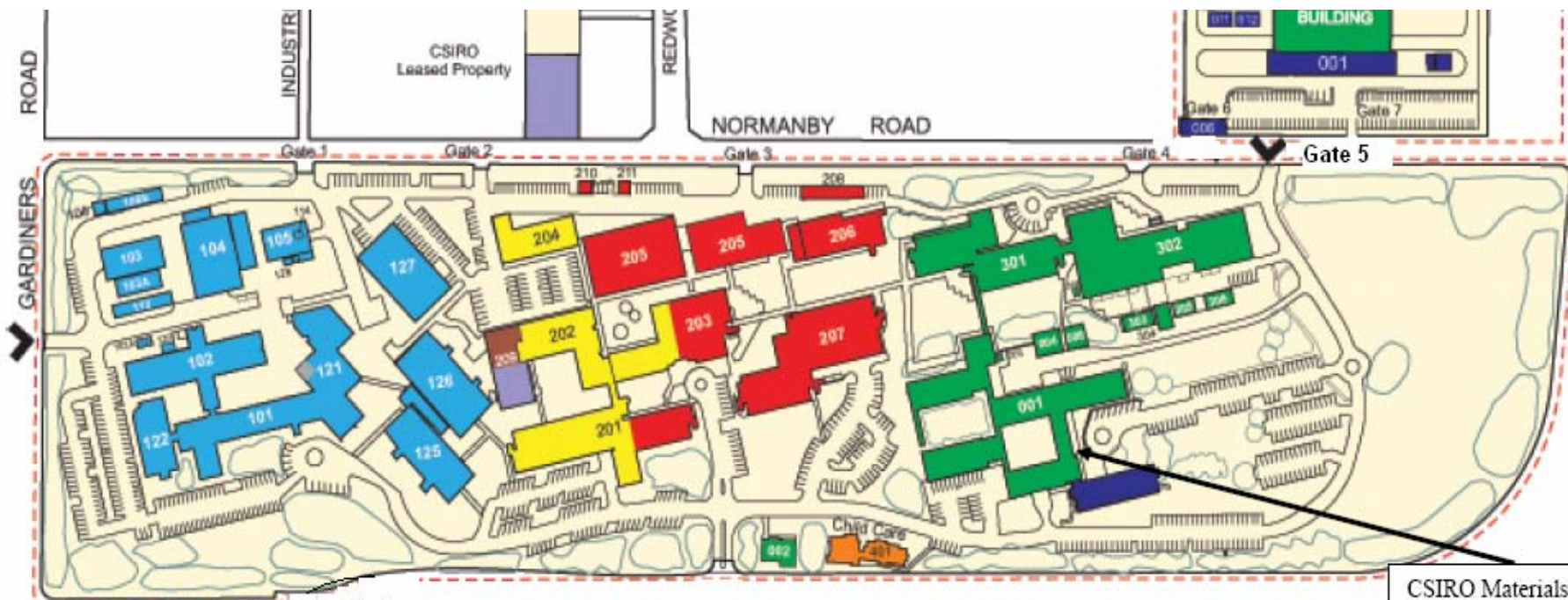
Abstract

Three areas will be discussed; firstly, the role of additions of carbon on the ageing response of near beta alloys. Secondly, the processing of powders to net shape and finally some recent work aimed at improving the properties of cast TiAl-based alloys.

The role of carbon additions on the nucleation of alpha in Ti-15-3, Ti25V15Cr2Al, Ti5553 and a model alloy Ti13Cr will be discussed. The detailed microstructural observations made on these alloys and the influence on the ageing response of three of these alloys will be discussed.

The influence of the microstructure of powders of Ti6Al4V and of Ti25V15Cr2Al 0.1C on their response to Net Shape HIPping will be discussed in terms of the factors that control the final properties of the components.

Finally in view of GE's and Rolls-Royce's decision that cast TiAl-based blades will be used in the next generation engines the response of cast Ti46Al(NbTa) to heat treatment to refine microstructures will be discussed.



CSIRO Materials Science & Engineering reception

Monash University
Clayton

Visitors must sign in at the reception and then escorted to the North Seminar Room which is in another building