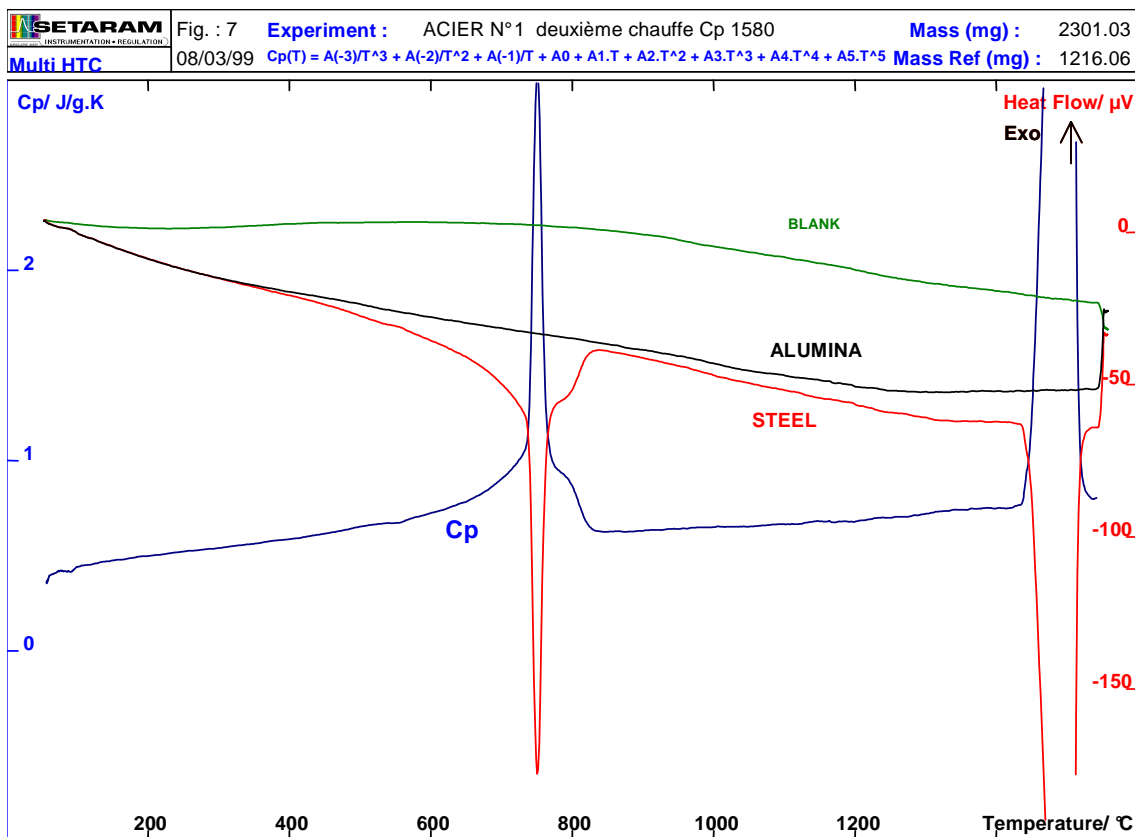


Heat capacity of a steel



Experimental :

AMulti HTC is used with heat flux DSC transducer.

Sample : steel

Sample size : \varnothing 5,0 mm, h=15 mm.

The analysis is done in a platinum crucible + alumina sleeve.

The determination of Cp requires three successive heating :

- without sample
- with a piece of alumina as a standard
- with a piece of steel

The three heating have been done from ambient up to 1550 $^{\circ}$ C at 10 K.min $^{-1}$.

The used atmosphere is helium

Conclusion:

The heat capacity of the steel is calculated from the experimental curves.

The Cp could be calculated also in the liquid state at 1550 $^{\circ}$ C.

Temp. / $^{\circ}$ C	Cp / J.g $^{-1}$.K $^{-1}$
200	0.50
400	0.58
600	0.73
900	0.63
1000	0.65
1200	0.68
1400	0.75
1550	0.80

Instrument :

MHTC96
-20 up to 1600 $^{\circ}$ C



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