Re-assessment of γ' ($L1_2$-Ni_3Al)
from that published in Acta Mater. 2008.

C. E. Campbell

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NIST/Metallurgy Division

Order Contributions to γ´ Mobility

Ordered Mobility Parameters	Value (J/mole) 11/07	Valule (J/mole) 7/08
Ni		
$\Delta^{\gamma'}Q^{Ni}_{Ni:Al} = \Delta^{\gamma'}Q^{Ni}_{Cr:Al}$	+85 746+3.55*T	-101347-3.12*T
$\Delta^{\gamma'}Q^{Ni}_{Al:Ni} = \Delta^{\gamma'}Q^{Ni}_{Al:Cr}$	+538 530	-674704+42.63*T
$\Delta^{\gamma'}Q^{Ni}_{:Ni:Cr} = \Delta^{\gamma'}Q^{Ni}_{Cr:Ni}$	+7 812	+7812
$\Delta^{\gamma'}Q^{Ni}_{Al,Ni:Al}$	+665 270	-222275
$\Delta^{\gamma'}Q^{Ni}_{Al,Ni:Ni}$	-50 181	612177
Al		
$\Delta^{\gamma'}Q^{Al}_{Ni:Al} = \Delta^{\gamma'}Q^{Al}_{Cr:Al}$	-78 012-7.2*T	-2780+4.61*T
$\Delta^{\gamma'}Q^{Al}_{Al:Ni} = \Delta^{\gamma'}Q^{Al}_{Al:Cr}$	-668 230+2.15*T	-220214-50.98*T
$\Delta^{\gamma'}Q^{Al}_{:Ni:Cr} = \Delta^{\gamma'}Q^{Al}_{Cr:Ni}$	+18 970	+18976
$\Delta^{\gamma'}Q^{Al}_{Al,Ni:Al}$	+26 279	475293
$\Delta^{\gamma'}Q^{Al}_{Al,Ni:Ni}$	+554 020	435391
Cr		
$\Delta^{\gamma'}Q^{Cr}_{Cr:Al}$	+85 746+3.55*T	-101347-3.12*T
$\Delta^{\gamma'}Q^{Cr}_{Al:Cr}$	+538 530	-674704+42.63*T
$\Delta^{\gamma'}Q^{Cr}_{Ni:Al}$	-22 170	-22181
$\Delta^{\gamma'}Q^{Cr}_{Al:Ni}$	+38 240	+38248
$\Delta^{\gamma'}Q^{Cr}_{Ni:Cr} = \Delta^{\gamma'}Q^{Cr}_{Cr:Ni}$	+7 812	+7812

Mobility Parameters for Disordered FCC	Value (J/mole)
Al	
$\Delta^{\gamma}Q_{Al}^{Al}$	-142000+RT*LN(1.71E-4)
$\Delta^{\gamma}Q_{Cr}^{Al}$	-235000-82*T
$\Delta^{\gamma}Q_{Ni}^{Al}$	-284000+RT*LN(7.5E-4)
$\Delta^{\gamma}Q_{Al,Ni}^{Al}$	-41300-91.2*T
$\Delta^{\gamma}Q_{Al,Cr}^{Al}$	335000
$\Delta^{\gamma}Q_{Cr,Ni}^{Al}$	-53200
Cr	
$\Delta^{\gamma}Q_{Al}^{Cr}$	-261700+RT*LN(0.64)
$\Delta^{\gamma}Q_{Cr}^{Cr}$	-235000-82*T
$\Delta^{\gamma}Q_{Ni}^{Cr}$	-287000-64.4*T
$\Delta^{\gamma}Q_{Al,Ni}^{Cr}$	487000
$\Delta^{\gamma}Q_{Al,Cr}^{Cr}$	-118000
$\Delta^{\gamma}Q_{Cr,Ni}^{Cr}$	-68000
Ni	
$\Delta^{\gamma}Q_{Al}^{Ni}$	-145900+RT*LN(4.4e-4)
$\Delta^{\gamma}Q_{Cr}^{Ni}$	-235000-82*T
$\Delta^{\gamma}Q_{Ni}^{Ni}$	-287000-69.8*T
$\Delta^{\gamma}Q_{Al,Ni}^{Ni}$	-113000+65.5*T
$\Delta^{\gamma}Q_{Al,Cr}^{Ni}$	211000
$\Delta^{\gamma}Q_{Cr,Ni}^{Ni}$	-81000

Parameters from Engström A, Ågren J. Assessment of Diffusional Mobilities in Face-ceneterd Cubic Ni-Cr-Al Alloys. *Z. Metallkd*. 1996;87:92.

Ni Tracer Diffusivity in γ´

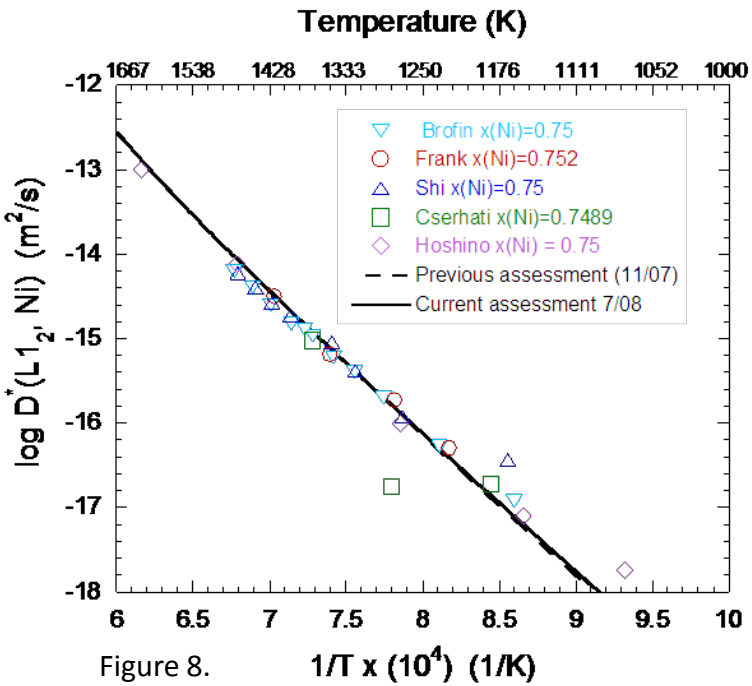

Figure 8.

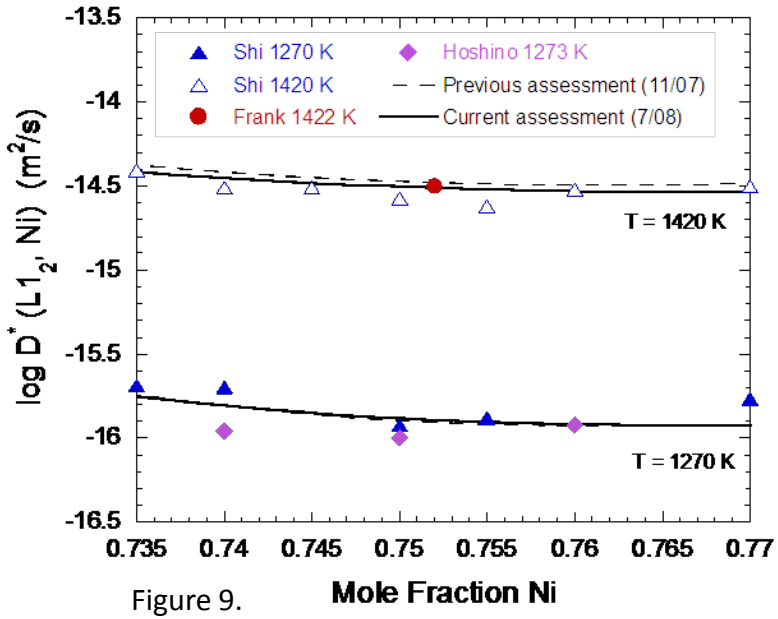

Figure 9.

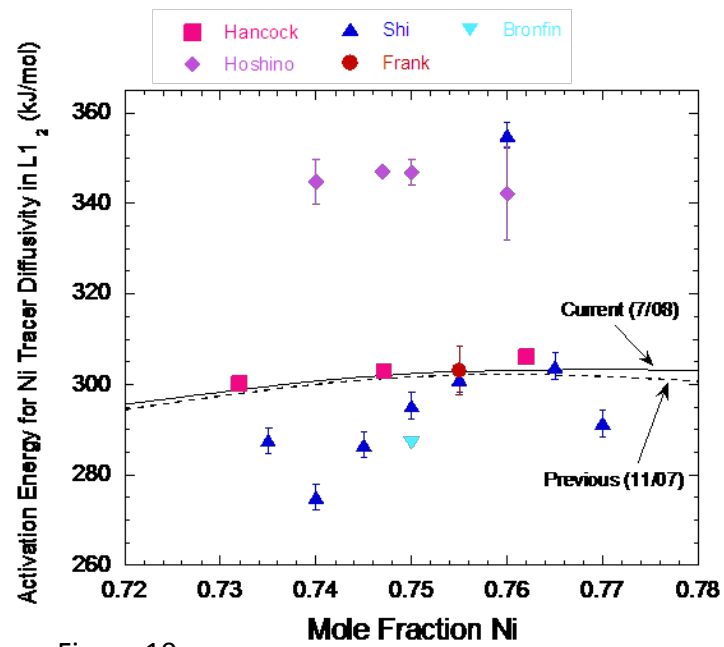

Figure 10.

Al Tracer Diffusivity in γ´

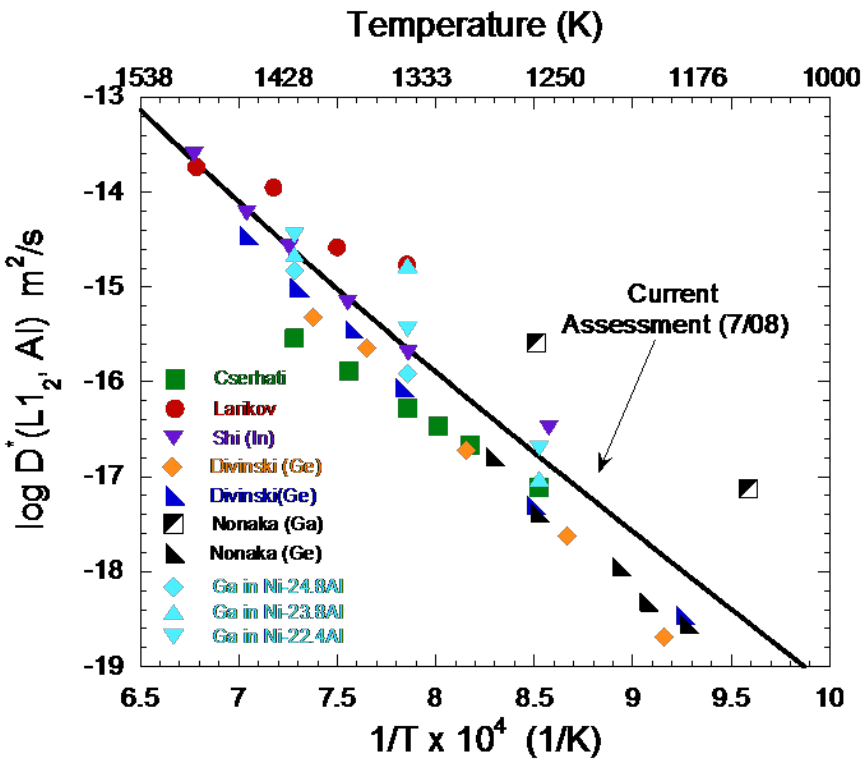

Figure 11.

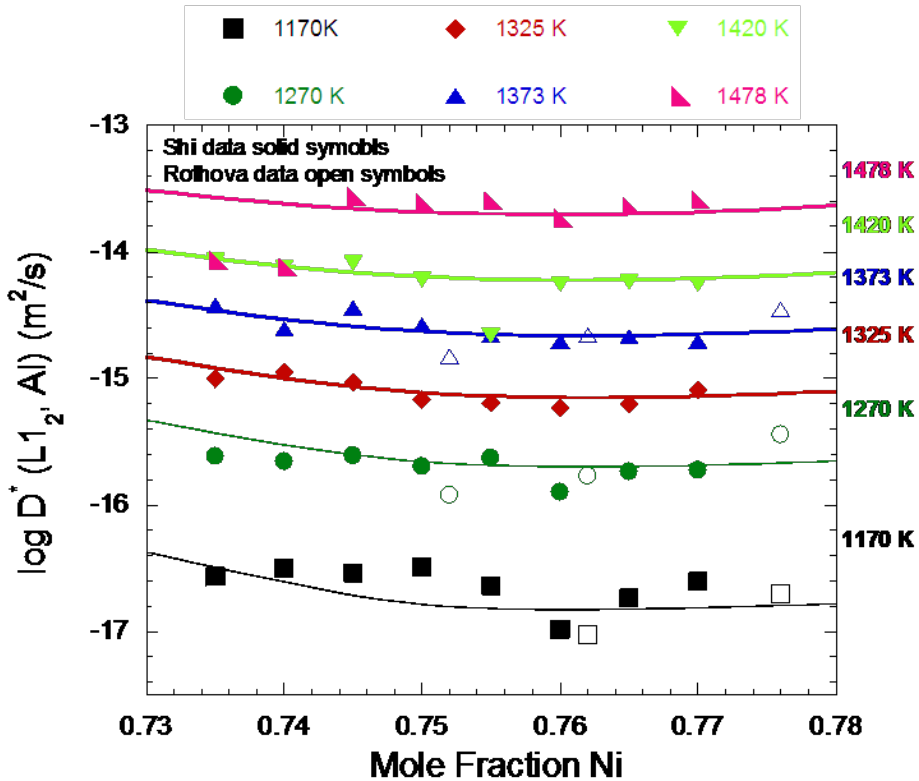

Figure 12.

γ´ Interdiffusion

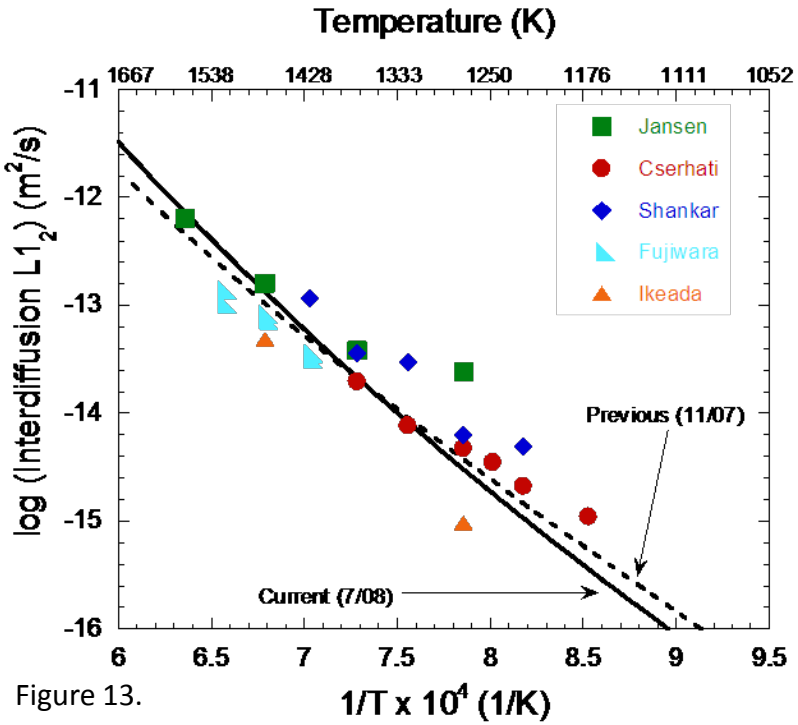

Figure 13.

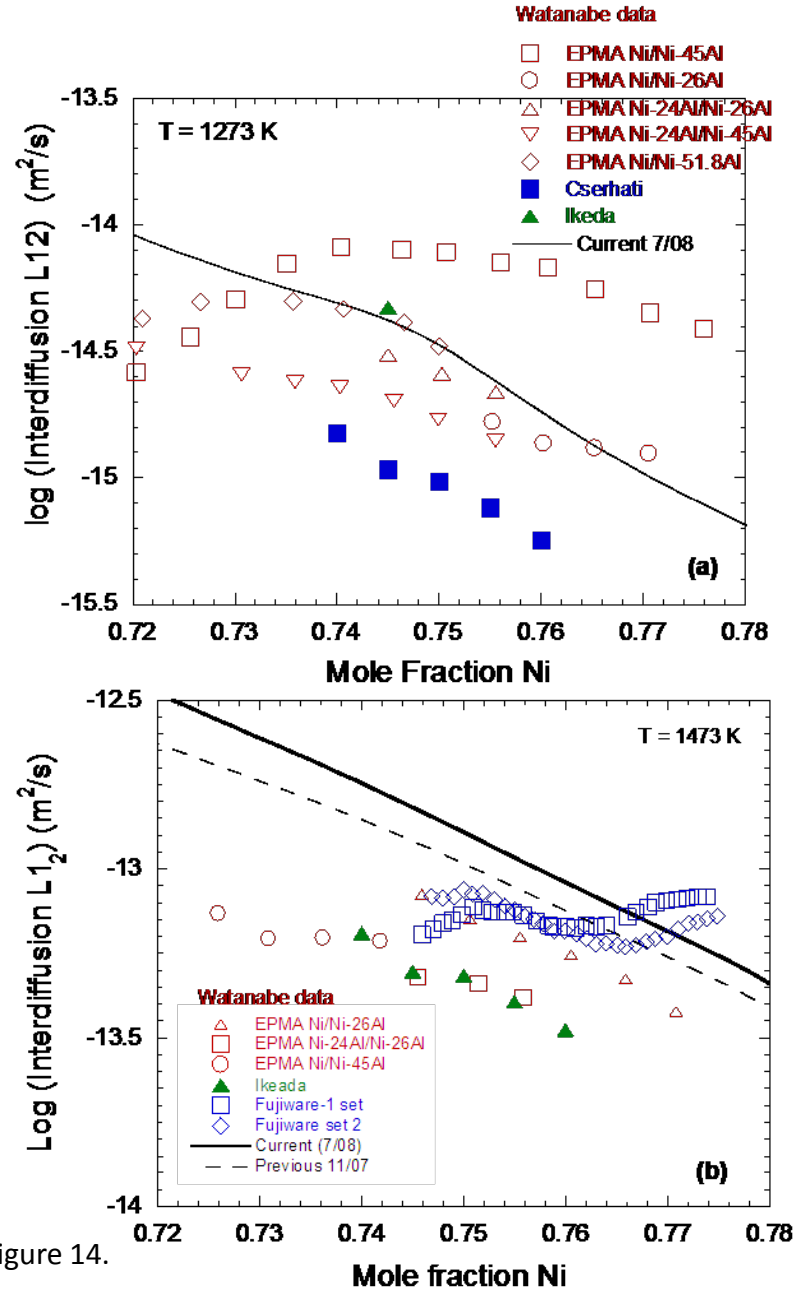

Figure 14.

Cr Tracer Diffusivity in γ´

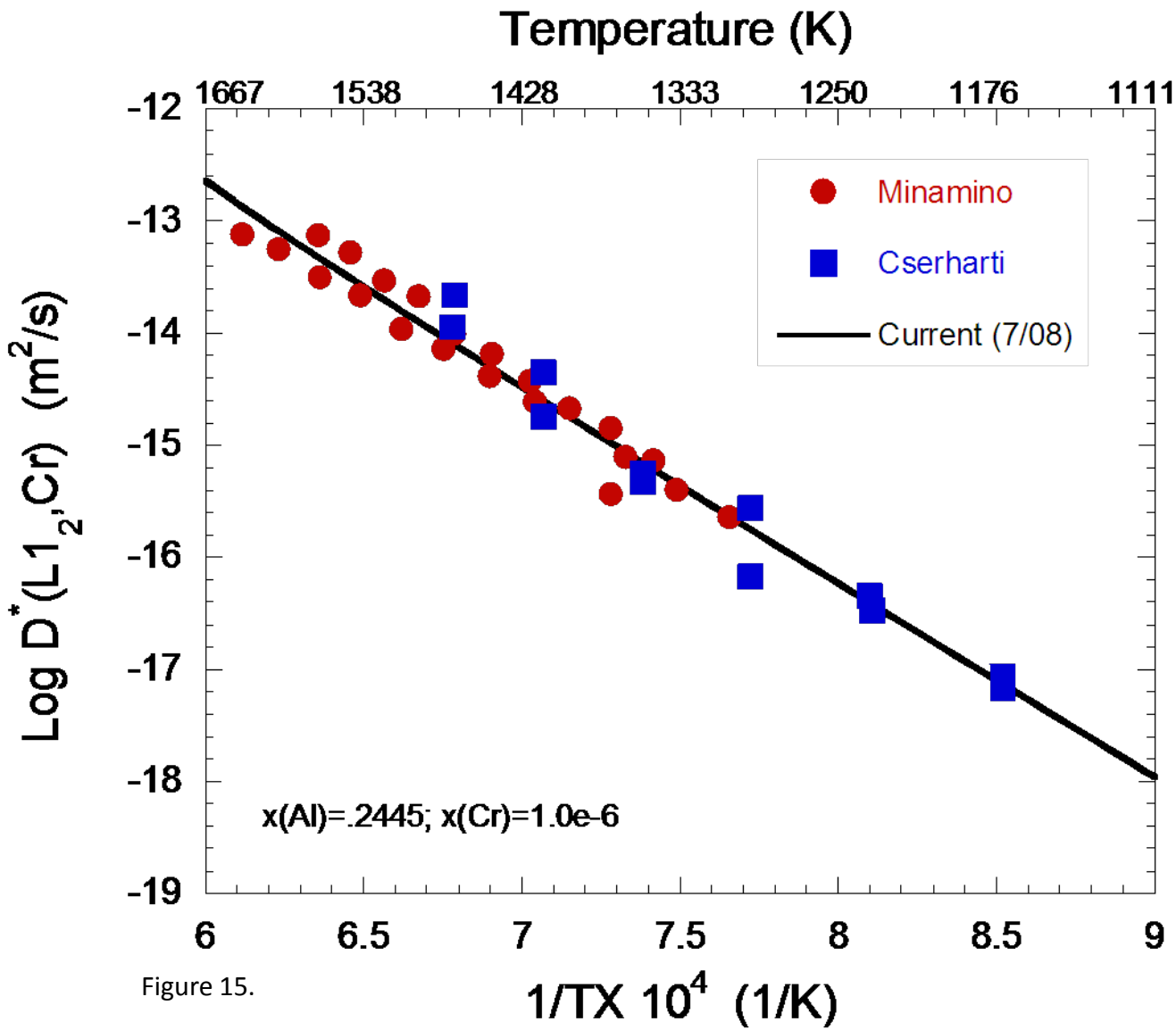

Figure 15.