

Al

Source of data: JANAF [FCC_A1, LIQUID]
 RWTH Aachen, Unpublished work [BCC_A2, BCC_A12]
 Kaufman [CUB_A13]
 Saunders et al. [HCP_A3]

Data for Al in the form of G-HSER

FCC_A1

-7976.15 + 137.093038 T - 24.3671976 T ln(T) - 1.884662E-3 T² - 0.877664E-6 T³ + 74092 T⁻¹ (298.15 < T < 700)
 -11276.24 + 223.048446 T - 38.5844296 T ln(T) + 18.531982E-3 T² - 5.764227E-6 T³ + 74092 T⁻¹ (700 < T < 933.47)
 -11278.378 + 188.684153 T - 31.748192 T ln(T) - 1.231E28 T⁹ (933.47 < T < 2900)

LIQUID

3028.879 + 125.251171 T - 24.3671976 T ln(T) - 1.884662E-3 T² - 0.877664E-6 T³ + 74092 T⁻¹ + 7.934E-20 T⁷ (298.15 < T < 700)
 -271.21 + 211.206579 T - 38.5844296 T ln(T) + 18.531982E-3 T² - 5.764227E-6 T³ + 74092 T⁻¹ + 7.934E-20 T⁷ (700 < T < 933.47)
 -795.996 + 177.430178 T - 31.748192 T ln(T) (933.47 < T < 2900)

BCC_A12

2107.25 + 132.280038 T - 24.3671976 T ln(T) - 1.884662E-3 T² - 0.877664E-6 T³ + 74092 T⁻¹ (298.15 < T < 700)
 -1192.84 + 218.235446 T - 38.5844296 T ln(T) + 18.531982E-3 T² - 5.764227E-6 T³ + 74092 T⁻¹ (700 < T < 933.47)
 -1194.978 + 183.871153 T - 31.748192 T ln(T) - 1.231E28 T⁹ (933.47 < T < 2900)

BCC_A2

2106.85 + 132.280038 T - 24.3671976 T ln(T) - 1.884662E-3 T² - 0.877664E-6 T³ + 74092 T⁻¹ (298.15 < T < 700)
 -1193.24 + 218.235446 T - 38.5844296 T ln(T) + 18.531982E-3 T² - 5.764227E-6 T³ + 74092 T⁻¹ (700 < T < 933.47)
 -1195.378 + 183.871153 T - 31.748192 T ln(T) - 1.231E28 T⁹ (933.47 < T < 2900)

CUB_A13

2944.29 + 132.281438 T - 24.3671976 T ln(T) - 1.884662E-3 T² - 0.877664E-6 T³ + 74092 T⁻¹ (298.15 < T < 700)
 -355.8 + 218.236846 T - 38.5844296 T ln(T) + 18.531982E-3 T² - 5.764227E-6 T³ + 74092 T⁻¹ (700 < T < 933.47)
 -357.938 + 183.872553 T - 31.748192 T ln(T) - 1.231E28 T⁹ (933.47 < T < 2900)

HCP_A3

-2495.15 + 135.293038 T - 24.3671976 T ln(T) - 1.884662E-3 T² - 0.877664E-6 T³ + 74092 T⁻¹ (298.15 < T < 700)
 -5795.24 + 221.248446 T - 38.5844296 T ln(T) + 18.531982E-3 T² - 5.764227E-6 T³ + 74092 T⁻¹ (700 < T < 933.47)
 -5797.378 + 186.884153 T - 31.748192 T ln(T) - 1.231E28 T⁹ (933.47 < T < 2900)

Data relative to FCC_A1

LIQUID

11005.029 - 11.841867 T + 7.934E-20 T⁷ (298.15 < T < 933.47)
 10482.382 - 11.253974 T + 1.231E28 T⁹ (933.47 < T < 2900)

BCC_A12

10083.4 - 4.813 T (298.15 < T < 2900)

BCC_A2

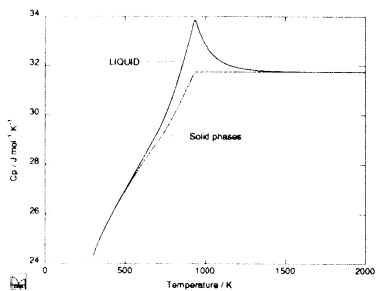
10083 - 4.813 T (298.15 < T < 2900)

CUB_A13

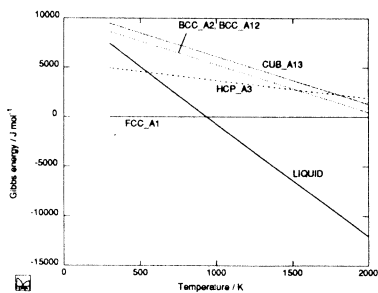
10920.44 - 4.8116 T (298.15 < T < 2900)

HCP_A3

5481 - 1.8 T

 $(298.15 < T < 2900)$ 

Heat capacity of Al



Gibbs energy of phases of Al relative to FCC_A1