D2d J1/J3-beta phase diagram at K = 0

(29 March 2016)

J1/J3     beta\_c/J3 by Cv peak    beta\_c by susceptibility peak

biaxial-uniaxial transition (D2d-Dinfh)

(task99, L = 12, 5000 samples)

0.1     10.5 +/- 0.2       10.1 +/- 0.2

0.2     5.3 +/- 0.1         5.2 +/- 0.1

0.3    3.56 +/- 0.04      3.52 +/- 0.06

0.4     2.66 +/- 0.06     2.6 +/- 0.06

0.5     2.18 +/- 0.04     2.18 +/- 0.04

0.6     1.9                         1.9

0.7     1.68 +/- 0.03     1.68 +/- 0.03

0.8     1.54 +/- 0.02     1.54 +/- 0.02

0.9     1.42 +/- 0.02     1.42 +/- 0.02 (true 3-point)

1.0     1.34 +/- 0.01     1.33 +/- 0.01 (old 3-point)

uniaxial - liquid transition (Dinfh-O3)

0          1.8

0.1       1.8

0.2     1.78 +/- 0.04

0.3     1.76 +/- 0.02

0.4     1.7

0.5     1.65 +/- 0.04

0.6     1.58 +/- 0.04

0.7     1.54 +/- 0.04

0.8     1.53 +/- 0.04

0.9     1.43 +/- 0.02 (true 3-points)

1.0     1.34 +/- 0.02  ( old 3-point)

biaxial-liquid transition  (D2d-O3)

0.9     1.42 +/- 0.02     1.42 +/- 0.02 (true 3-point)

1.0     1.34 +/- 0.01     1.33 +/- 0.01 (old 3-point)

1.1     1.26 +/- 0.01     1.26 +/- 0.01

1.2     1.19 +/- 0.01     1.19 +/- 0.01

1.25     1.16 +/- 0.01 ( since here task87, L = 12, 5000 samples)

1.30     1.13 +/- 0.01

1.40     1.08

1.50     1.03 +/- 0.01

1.60     0.99

1.70     0.95 +/- 0.01

1.80     0.92

1.90     0.89 +/- 0.01

2.00     0.86 +/- 0.01