D2 J1/J3-beta phase diagram at K = 0

(task85, task98, task140 and earlier simulations, L = 12, 5000 samples; 30 March 2016 )

J1/J3      beta\_c by susceptibility peak

biaxial-uniaxial transition (D2 - Dinfh)

0.00     infinite

0.05     13 +/- 2 (can be skipped)

0.10     7.1 +/- 1

0.15     4.8 +/- 0.3 (can be skipped)

0.20     3.8

0.25     2.8 +/- 0.1 (can be skipped)

0.30     2.36

0.35     2.1 +/- 0.1 (can be skipped)

0.40     1.89

0.45     1.74 (can be skipped)

0.50     1.63

0.55     1.54 +/- 0.02

0.60     1.46 +/- 0.02 (tricritical/triple point)

uniaxial-liquid transition (D\_infh - O3)

0.00     1.8 +/- 0.05

0.05     1.72 +/- 0.05 (can be skipped)

0.10     1.71 +/- 0.05

0.15     1.70 +/- 0.05 (can be skipped)

0.25     1.68 +/- 0.05

0.35     1.63 +/- 0.05 (can be skipped)

0.40     1.6

0.45     1.55 (can be skipped)

0.50     1.5

0.60     1.46 +/- 0.02 (tricritical/triple point)

biaxial-liquid transition (D2-O3)

0.60     1.46 +/- 0.02 (tricritical/triple point)

0.65     1.39 +/- 0.02

0.75     1.27 +/- 0.02 (can be skipped)

0.80     1.22 +/- 0.02

0.85     1.18 +/- 0.02 (can be skipped)

0.90     1.13 +/- 0.02 (can be skipped)

0.95     1.09 +/- 0.02 (can be skipped)

1.05     1.02 +/- 0.02 (can be skipped)

1.10     0.99 +/- 0.02 (can be skipped)

1.15     0.96 +/- 0.02 (can be skipped)

1.20     0.93 +/- 0.02

1.25     0.91 +/- 0.02 (can be skipped)

1.40     0.84 (can be skipped) (data from here are new)

1.60     0.76

1.80     0.70 (can be skipped)

2.00     0.64

2.20     0.6

2.40     0.56 (3-point)

biaxial-biaxial\* transition (D2-D2h)

2.40     0.56 (3-point)

2.60     0.53

2.80     0.51

3.00     0.48

biaxial\*-liquid transition (D2h-O3)

2.40     0.56 (3-point)

2.60     0.5

2.80     0.47

3.00     0.43