D2h J1-J3 phase diagram

(task138, L = 10, 2000 samples, V 8.1.)

|  |  |  |  |
| --- | --- | --- | --- |
| J3 | J1(BU) | J1 (UL) | J1 (BL) |
| 0.0 |  |  | 1.34 |
| 0.4 |  |  | 1.32 |
| 0.8 |  |  | 1.26 |
| 1.0 |  |  | 1.18 |
| 1.3 | 1.04 | 1.04 | 1.04 |
| 1.5 | 0.96 | 0.78 |  |
| 1.6 | 0.88 | 0.62 |  |
| 1.7 |  | 0.26 |  |
| 1.8 |  | 0 |  |
| 2.0 | 0.8 |  |  |

D2 J1-J3 phase diagram

(task137, L = 10, 2000 samples, V 8.1.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| J3 | J1(BU) | J1 (UL) | J1 (BL) | J1(BB\*) | J1(B\*L) |
| 0.0 |  |  |  |  | 1.36 |
| 0.2 |  |  |  |  |  |
| 0.3 |  |  |  | 2 | 1.3 |
| 0.4 |  |  |  | 1.59 |  |
| 0.45 |  |  |  | 1.5 |  |
| 0.6 |  |  | 1.28 |  | 1.28 |
| 0.65 |  |  |  | 1.3 |  |
| 0.8 |  |  | 1.2 |  |  |
| 1.0 |  |  | 1.08 |  |  |
| 1.2 |  |  | 0.98 |  |  |
| 1.5 | 0.86 | 0.86 | 0.86 |  |  |
| 1.6 |  | 0.62 |  |  |  |
| 1.75 | 0.80 | 0 |  |  |  |
| 2.0 | 0.74 |  |  |  |  |

D3h J1-J3 phase diagram

(task137, L = 10, 2000 samples, V 8.1.)

|  |  |  |  |
| --- | --- | --- | --- |
| J3 | J1(BU) | J1 (UL) | J1 (BL) |
| 0.0 |  |  | 2.12 |
| 0.2 |  |  | 2.10 |
| 0.4 | 2.08 | 2.08 | 2.08 |
| 0.8 |  | 1.76 |  |
| 1.2 | 1.92 | 1.32 |  |
| 1.6 |  | 0.64 |  |
| 1.8 |  | 0 |  |
| 2.0 | 1.76 |  |  |

D3 J1-J3 phase diagram

(task137, L = 10, 2000 samples, V 8.1.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| J3 | J1(BU) | J1 (UL) | J1 (BL) | J1(BB\*) | J1(B\*L) |
| 0.0 |  |  |  |  | 2.12 |
| 0.15 |  |  |  | 3 |  |
| 0.2 |  |  | 2.1 | 2.1 | 2.1 |
| 0.4 |  |  | 1.94 |  |  |
| 0.6 | 1.68 | 1.69 | 1.68 |  |  |
| 1.0 | 1.48 | 1.28 |  |  |  |
| 1.4 | 1.46 | 1 |  |  |  |
| 1.6 |  | 0.6 |  |  |  |
| 1.75 |  | 0 |  |  |  |
| 2.0 | 1.32 |  |  |  |  |

D4h J1-J3 phase diagram

(task134, 135, L = 10, 2000 samples, V 8.1.)

|  |  |  |
| --- | --- | --- |
| J3 | J1 (BU) (task135) | J1 (UL) (task134) |
| 0.0 | 2.7 | 2.1 |
| 0.4 | 2.64 | 1.92 |
| 1.0 | 2.58 | 1.55 |
| 1.4 |  | 1.06 |
| 1.6 | 2.55 | 0.68 |
| 1.8 |  | 0 |
| 2.0 | 2.5 |  |

D4 J1-J3 phase diagram

(task136, L = 10, 2000 samples, V 8.1.)

|  |  |  |  |
| --- | --- | --- | --- |
| J3 | J1(BU) | J1 (UL) | J1(BB\*) |
| 0.0 | 2.74 | 2.07 |  |
| 0.2 |  |  | 3 |
| 0.25 |  |  | 2.75 |
| 0.4 | 2.62 | 1.98 |  |
| 0.8 |  | 1.50 |  |
| 1.0 | 2.49 |  |  |
| 1.2 |  | 1.14 |  |
| 1.6 |  | 0.63 |  |
| 1.75 |  | 0 |  |
| 2.0 | 2.45 |  |  |