

S a a (Ga, M

$$\Delta \hat{H}_y / \Delta H_y = E / J_0 + (2x-1)J_1 + \sum_{j=1}^{\infty} J_j D_j H_j(\sigma) + \sum_{j=1}^{\infty} J_j D_j H_j(\sigma) \quad (1)$$

$$\Delta \hat{H}_y / \Delta H_y = E / J_0 + (2x-1)J_1 + \sum_{j=1}^{\infty} J_j D_j H_j(\sigma) + \sum_{j=1}^{\infty} J_j D_j H_j(\sigma)$$

$$\Delta \hat{H}(x) = 0 \quad (3)$$

$$(111) < (100) < (110) < (201) \quad (111)$$

$$(111) < (100) < (110) < (201) \quad (3)$$

$$\Delta H(x) / \Omega_1 x(1-x) + \Omega_2 x^2(1-x) + \Omega_3 x^3(1-x) \dots \quad (4)$$

$$\Omega_1 / 2 \cdot 3, \Omega_2 / 3 \cdot 0, \Omega_3 / 23$$

$$E_1, E_2, \dots$$

$$(100) \quad x/0, 1, \dots / 1, 2, \dots$$

$$x/1, \dots x/0, \dots$$

$$\{J\}$$

II. METHOD OF ESTABLISHING THE CLUSTER EXPANSION

$$\Delta \hat{H}_y / \Delta H_y = E / J_0 + \Delta \hat{H}_y$$





4  
 ( )  
 $4 \times 4 \times 4$   
 $\Delta H_{y_1} / 2.04$ ,  $\Delta H_{z_1} / 2.4$   
 $32$   
 $(x_1)$   
 $(x_2)$  (301)  
 $0.2$   
 $0.2$   
 $\Delta H_{y_1}(\sigma)$

$$\Delta H_{y_1}(x) / \langle \Delta H_{y_1}(\sigma) \rangle. \quad (13)$$

$\Delta H_{y_1} / 41.32$ ,  $\Delta H_{z_1} / 40.04$   
 $(x_1)$   
 $x_1 = 0$   
 $(x_1)$   
 $(x_2)$   
 (110)  $(x_3)$   
 $\Delta H_{y_1} / 22.33$ ,  $\Delta H_{z_1} / 23.00$   
 $\Delta H_{y_1} / 30.00$ ,  $\Delta H_{z_1} / 32.04$   
 $(x_1)$   
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 $(x_{99})$   
 $(x_{100})$

C. T a a

$(13)$   
 $x/0$   
 $(4)$   $\Omega_1 / 2 \cdot 3$ ,  $\Omega_2 /$   
 $3 \cdot 0$ ,  $\Omega_3 / 23$   
 $(4)$   
 $33$

$$\Delta G(x) / \Omega_1 x(1-x) + \Omega_2 x^2(1-x) + \Omega_3 x^3(1-x) + \dots [x_1(x) + (1-x) \dots (1-x)], \quad (14)$$

where

$$\sqrt{\sum_{\sigma=1}^n |\Delta \hat{H}_{z_1}(\sigma) - \Delta \hat{H}_{y_1}(\sigma)|^2}, \quad (12)$$

$0.2$ ,  $1.34$

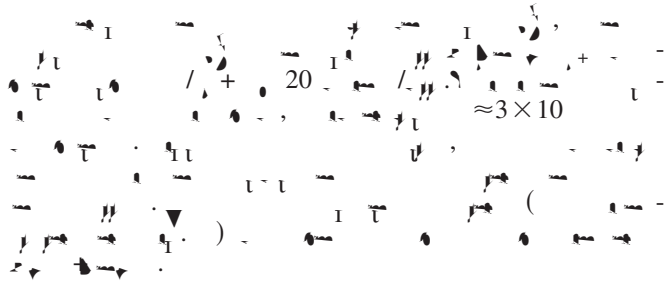
D.  $T=0$

a

a

a

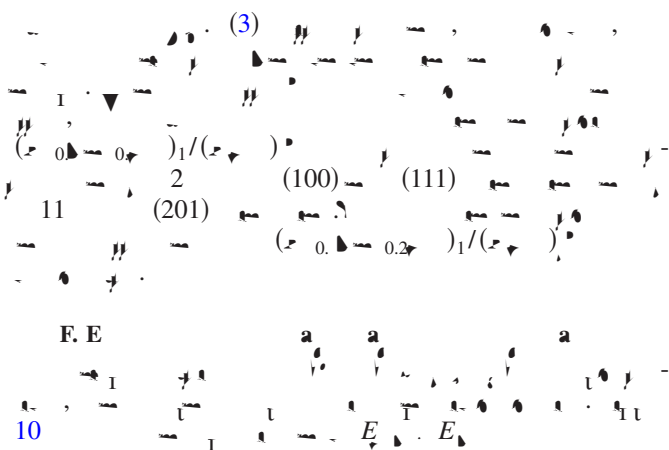
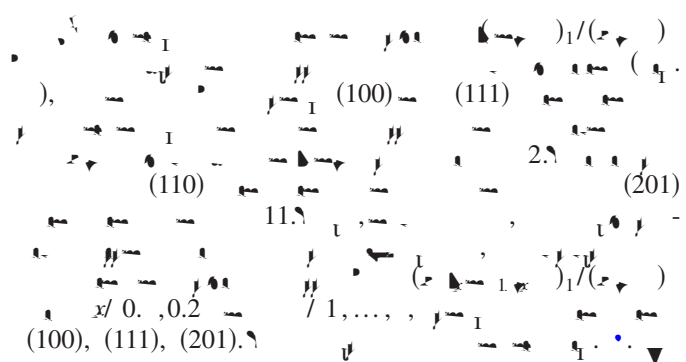
$\rightarrow \rightarrow \rightarrow \rightarrow$



E. S

a





$(\dots)_1 / (\dots),$   
 $(\dots) / (\dots),$   
 $(\dots)$

$(111)$   
 $(\dots)_2 (\dots)_1 (\dots)_4 (\dots)_1,$

$(201)$   
 $(201)$

$0.3$   
 $0.2$

$22_0 0 22_6 0. \cdot +04 123 - .3 - 10 \backslash 2 / 1 \cdot \cdot \cdot * ,442 \cdot 11 \backslash 1.42 10 \cdot \cdot \cdot / 3 \cdot \cdot \cdot$

$0.2$   $0.2$   $0.2$   $0.2$   $-434.$   $-434.$   $.1$   $3-434.$   $3-434.$   $2$

$4 \cdot \cdot \cdot -33 \cdot \cdot \cdot - .1 2 -1.1 \cdot \cdot \cdot / \cdot \cdot \cdot 1.040 \cdot \cdot \cdot / 3 \cdot \cdot \cdot 0.3 2 \cdot \cdot \cdot$



