

S a a (Ga, M

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

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

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

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

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

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

$$E_1, E_2$$

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

$$x/1 - x/0$$

$$\{J\}$$

II. METHOD OF ESTABLISHING THE CLUSTER EXPANSION

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





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

4  
 (-)  
 $4 \times 4 \times 4$   
 $\Delta H_{y,y} / 2.04$ ,  $\Delta H_{r,r} / 2.4$   
 $32$   
 $(x_{r,r})_2 (301)$   
 $0.2$   
 $0.2$   
 $\Delta H_{y,y}(\sigma)$

$$\Delta H_{r,r}(x) / \langle \Delta H_{y,y}(\sigma) \rangle \quad (13)$$

$\Delta H_{y,y} / 41.32$ ,  $\Delta H_{r,r} / 40.04$   
 $x = 0$   
 $(x_{r,r})_1 / (x_{r,r})_3$  (100)  
 (110)  $(\angle 3 - \angle 3, \angle 3)$   $\angle 3$   
 $\Delta H_{y,y} / 22.33$ ,  $\Delta H_{r,r} / 23.00$   
 $\Delta H_{y,y} / 30.00$ ,  $\Delta H_{r,r} / 32.04$   
 $2$

### C. T a a

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

$$\Delta G(x) / \Omega_1 x(1-x) + \Omega_2 x^2(1-x) + \Omega_3 x^3(1-x) + \dots [x_{r,r}(x) + (1-x) \cdot (1-x)], \quad (14)$$

where

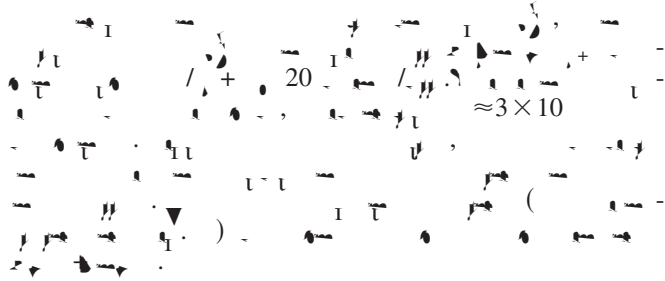
D.  $T=0$

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$\rightarrow \rightarrow \rightarrow \rightarrow$



E. S

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