

2. 電子要填入數個同副殼層的軌域時，必須先以相同的自旋方式完成半填滿之後，才能以成對的方式填入軌域，請問此敘述屬於何種規則？

- (A) 罕德定則(Hund's rule)
- (B) 包利不相容原理(Pauli exclusion principle)
- (C) 構築原理(Aufbau principle)
- (D) 18電子規則(18 electron rule)
- (E) 道耳頓原子說(Dalton's atomic theory)

中國內 106(37)

答案：(A)

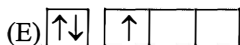
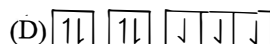
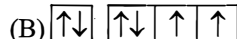
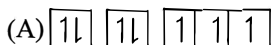
►►解析：

題目的敘述是罕德定則(Hund's rule)，因此答案應選(A)

而(D)選項的18電子規則又稱為effective atomic number (EAN rule)

是預測過渡金屬錯合物的結構和穩定度的一個經驗法則

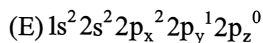
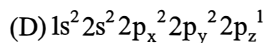
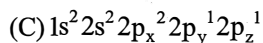
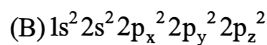
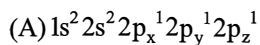
3. Which of the following orbital diagram(s) is/are consistent with the Hund's rule?



台大 106A(13)

答案：(ABCDE)

4. Which of the following electron configurations is inconsistent with Hund's rule of maximum multiplicity?



台聯大 104A7(7)

答案：(E)

►►解析：

(E)選項的電子組態先把 $2p_x$ 填滿兩個電子後，才將下一個電子填入 $2p_y$

不符合Hund's rule先半滿再全滿的要求