

CHEM105H Unannounced Quiz 3

Name on back please...

Please show all work and all equations to receive any credit

1. How many values of the quantum number l are there when $n=4$? State each of the values as well as the letter of the subshell associated with each of these.
2. For a $5f$ electron, state the possible values of the quantum number m_l .
3. Please complete the following table showing, in the order that they are filled (beginning with the lowest energy level), the quantum numbers for each of the 18 electrons in an argon atom that is in the ground electronic state.

<i>Electron number</i>	<i>n</i>	<i>l</i>	<i>m_l</i>	<i>m_s</i>
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				