

n - PEL
 l → sublevel
 m → orbital
 s ⇒ spin

$2p^4$

	s	p	d	f
	0	1	2	3

2e- per orbital

$2p^4$

	s	p	d	f
	0	-1	0	+1
	-1	-1	0	+1
	-2	-1	0	+1
	-3	-2	-1	0
				+1
				+2
				+3

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(664)

@	n	l	m	s
	2	x	x	$-\frac{1}{2}$
	PEL			

$2s$

$2p$

$(2, 0, 0, -\frac{1}{2})$

$(2, -1, -1, -\frac{1}{2})$

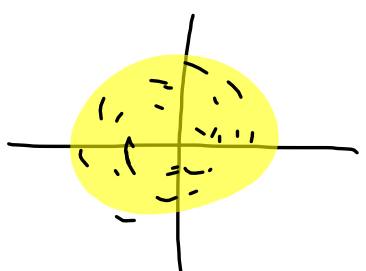
$(2, 1, 0, +\frac{1}{2})$

$(2, 1, 1, +\frac{1}{2})$

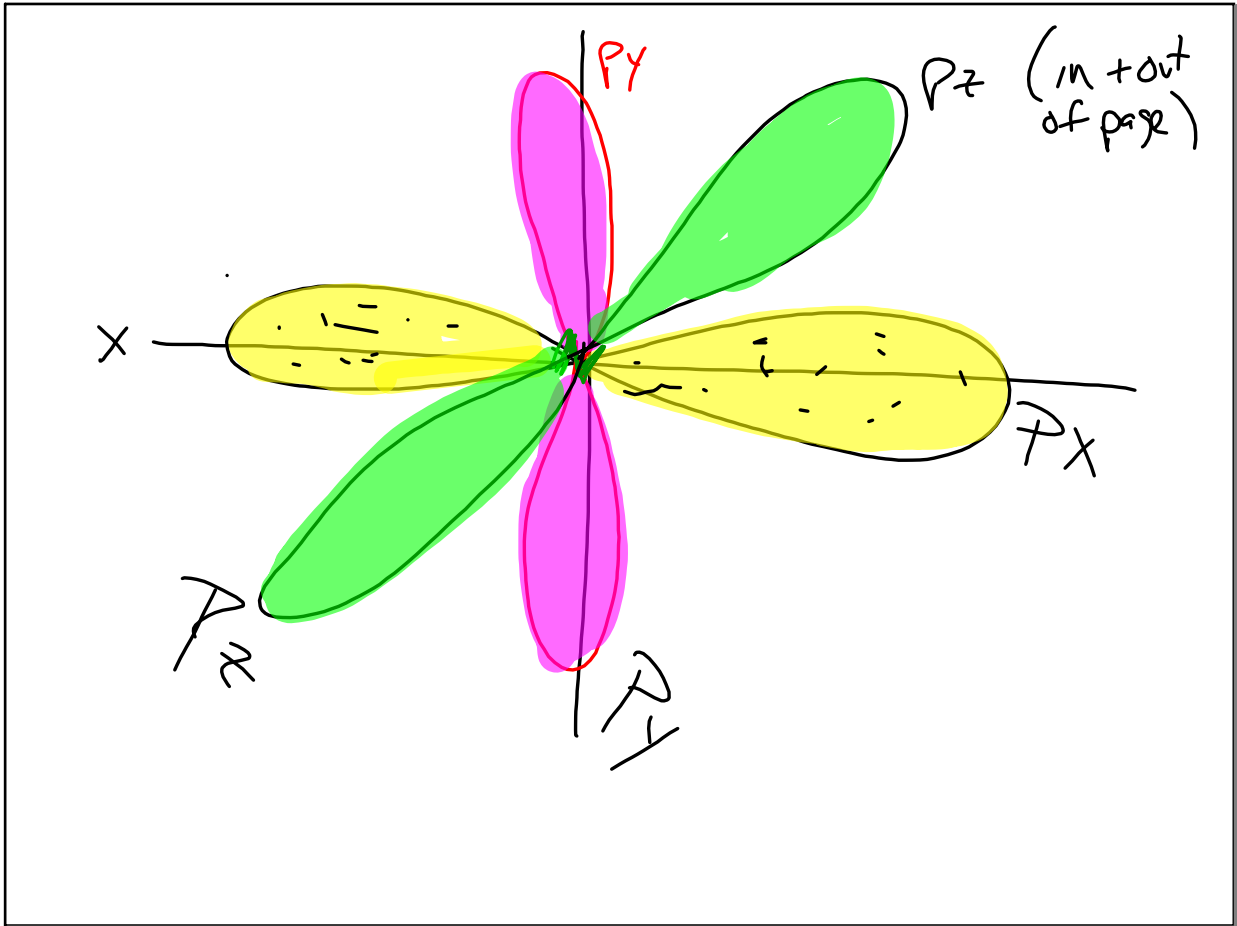
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$(664b)$ $n=5$ $l=3$ $(m=?)$ $(s=?)$
 $\boxed{S \quad f}$
 $(4e^-)$ $\begin{matrix} \uparrow \downarrow \\ -3 \end{matrix} \quad -2 \quad -1 \quad 0 \quad 1 \quad 2 \quad 3$
 \textcircled{Q} $4, 3, -3, X$ \textcircled{Q}
 $4f$
 \textcircled{Q} $4, 1, 1$
 $4p$ $-1 \quad 0 \quad (+1)$

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S 
 P P_x P_y P_z

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Hunds Rule - stable, max e⁻ spin
in a single direction.

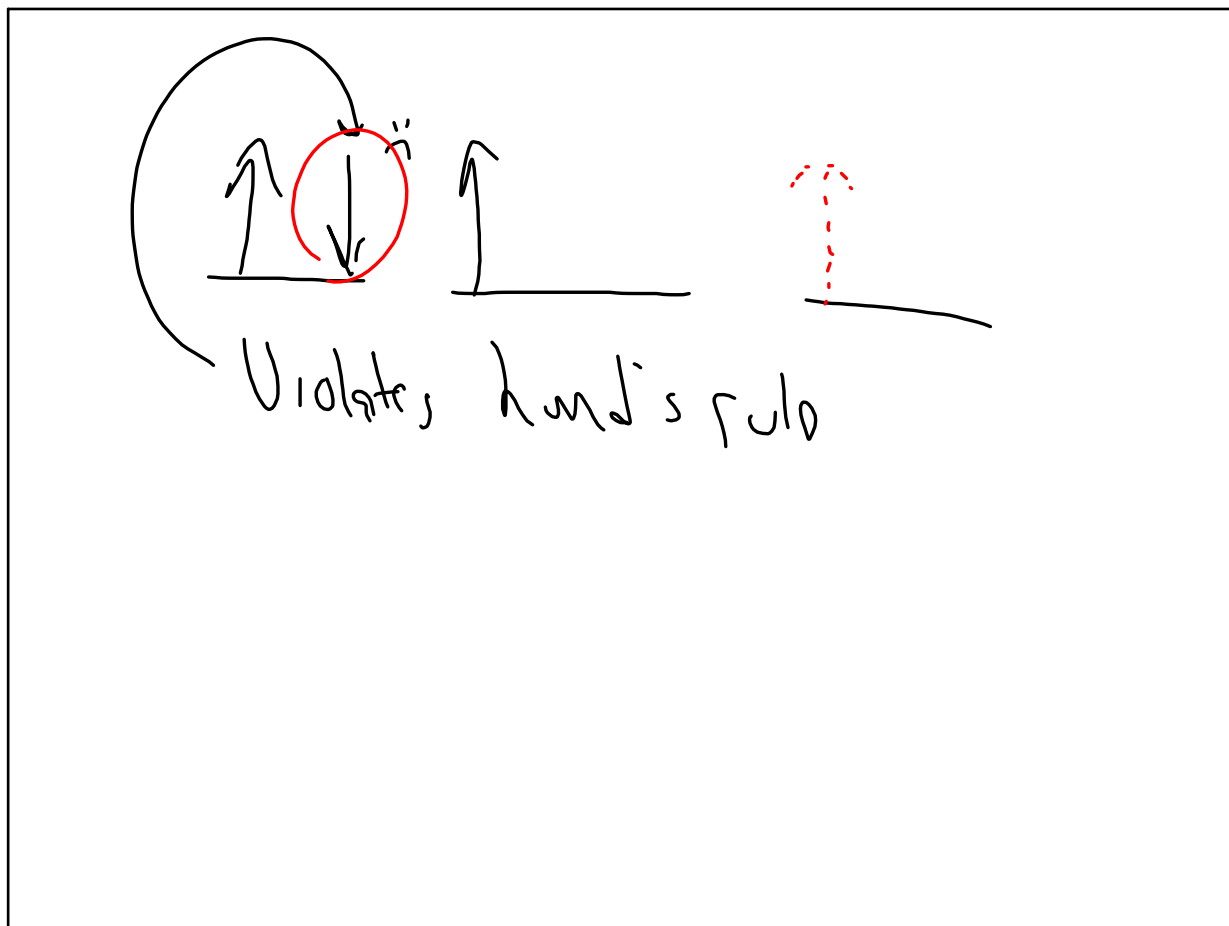
Pauli exclusion principle



n, l, m, s #'s

No 2e⁻ can have the same "address"
↳ 4 quantum #'s.

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PS 6-1 # 1-27

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