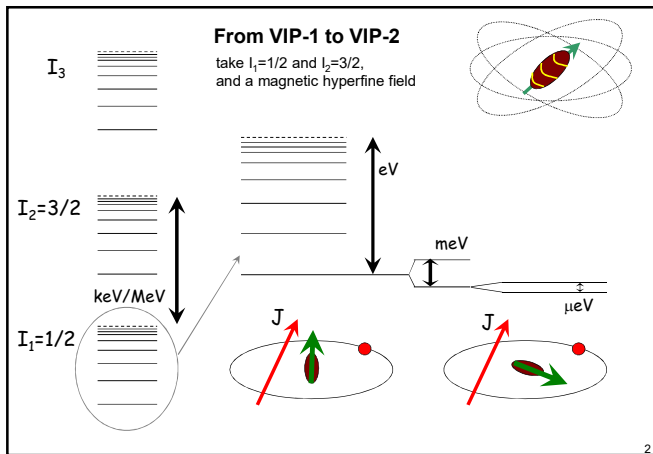
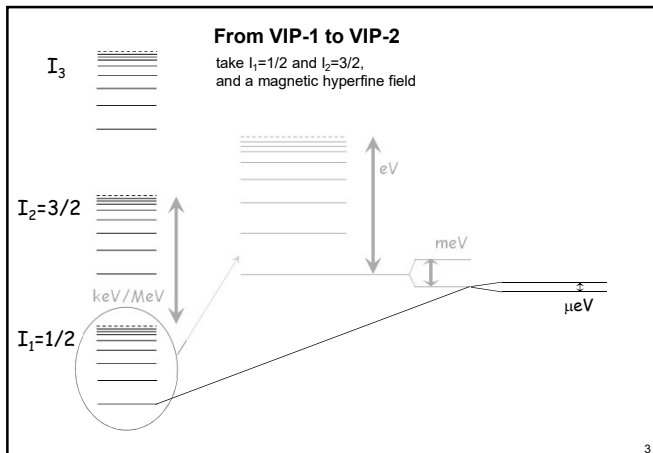


from VIP-1 to VIP-2

www.hyperfinecourse.org





From VIP-1 to VIP-2
 take $I_1=1/2$ and $I_2=3/2$,
 and a magnetic hyperfine field

I_3

$I_2=3/2$

$I_1=1/2$

- The splitting by the HFF is twofold: why?
- The amount of splitting in different electronic configurations is not the same: why?

4

From VIP-1 to VIP-2
 take $I_1=1/2$ and $I_2=3/2$,
 and a magnetic hyperfine field

I_3

$I_2=3/2$

$I_1=1/2$

- The splitting in another nuclear state is fourfold: why ?
- The splitting by the HFF is twofold: why ?
- The amount of splitting in different electronic configurations is not the same: why ?

5

From VIP-1 to VIP-2 : transitions

I_3

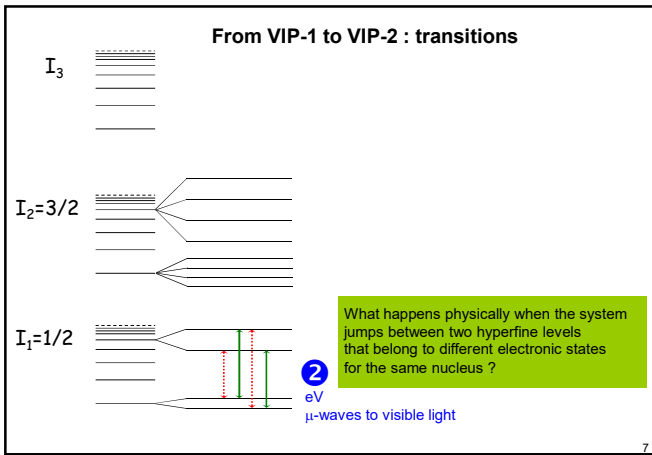
$I_2=3/2$

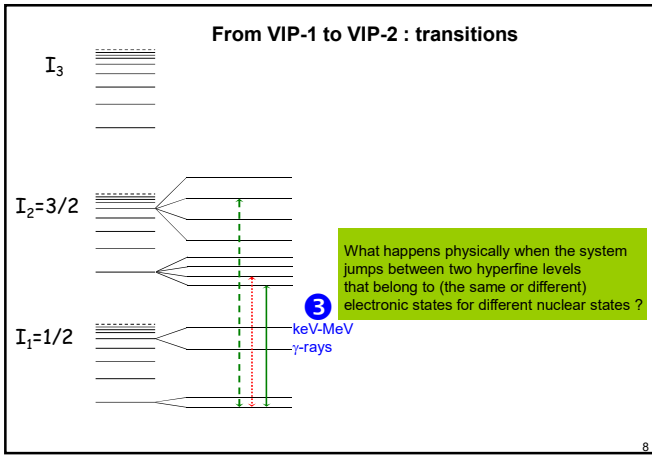
$I_1=1/2$

1
 μeV
 radio waves

What happens physically when the system jumps between two hyperfine levels that belong to the same nuclear+electronic state ?

6





Attention !

Here comes our second VIP^(*).

(*) Very Important Picture

9

