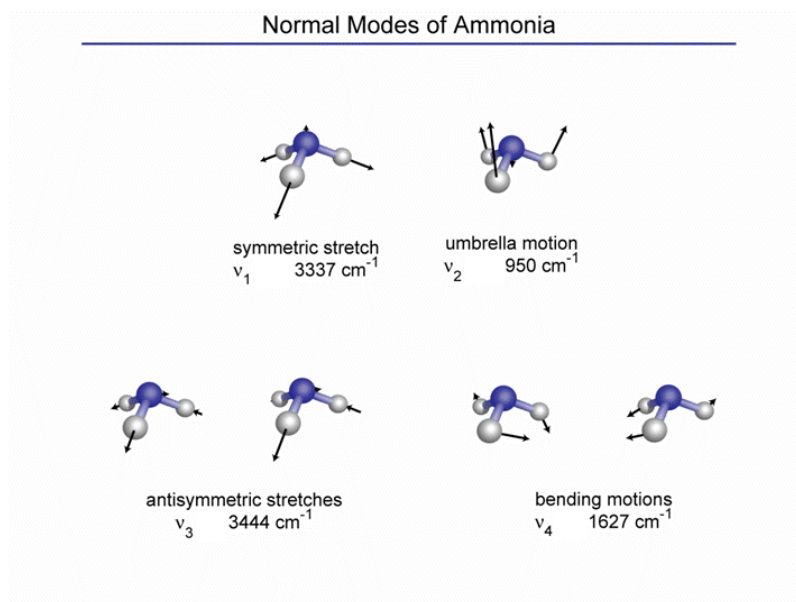
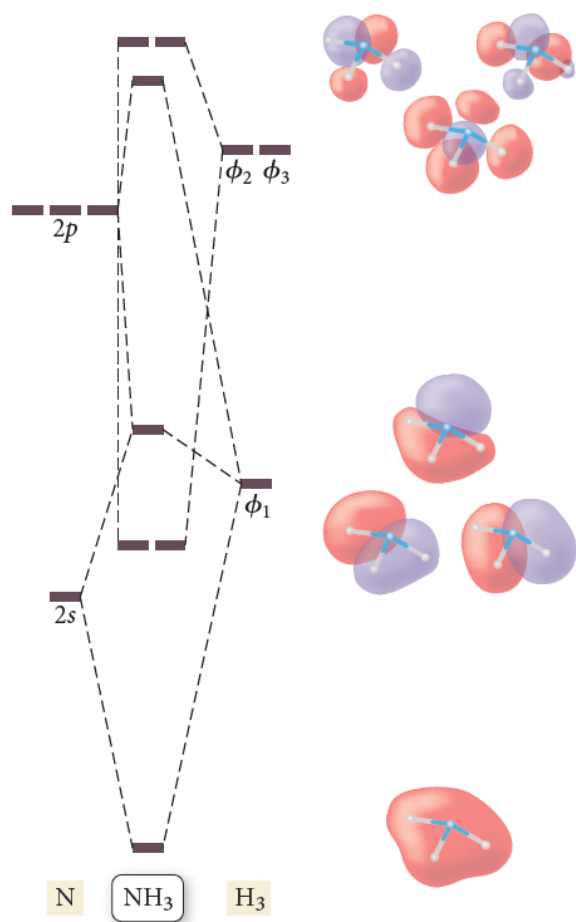


Quiz 10.2 – Applications of Symmetry and Group Theory

Name: _____

Irreducible Representations

Consider the ammonia molecule, which belongs to the C_{3v} symmetry point group. Below are figures showing the molecular orbitals and normal modes of ammonia. Assign each feature to the correct irreducible representation of the C_{3v} point group.



Which (if any) of the vibrational modes are “silent” in IR or Raman spectra

Is the HOMO-LUMO transition allowed by symmetry? If so, what direction of light polarization can induce the transition?

God Says Yes to Me

By Kaylin Haught

I asked God if it was okay to be melodramatic
and she said yes
I asked her if it was okay to be short
and she said it sure is
I asked her if I could wear nail polish
or not wear nail polish
and she said honey
she calls me that sometimes
she said you can do just exactly
what you want to
Thanks God I said
And is it even okay if I don't paragraph
my letters
Sweetcakes God said
who knows where she picked that up
what I'm telling you is
Yes Yes Yes