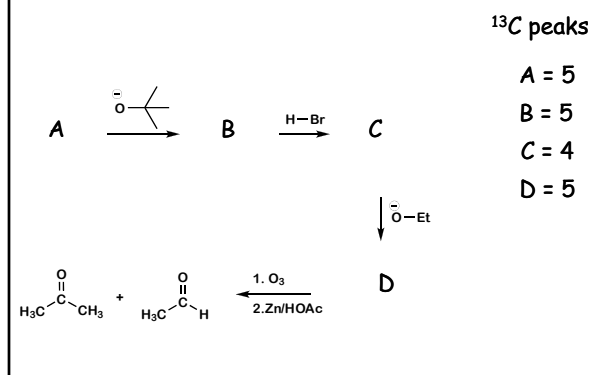
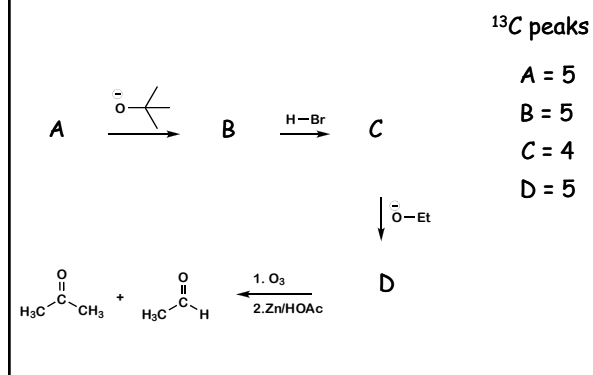


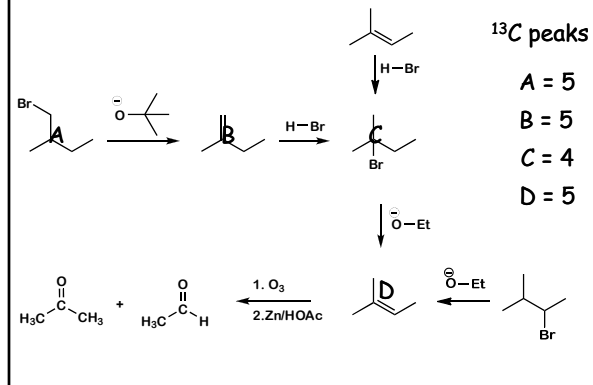
Compound A has the formula $C_5H_{11}Br$. The peaks for the ^{13}C NMR are shown below. Give structures for compounds A-D.



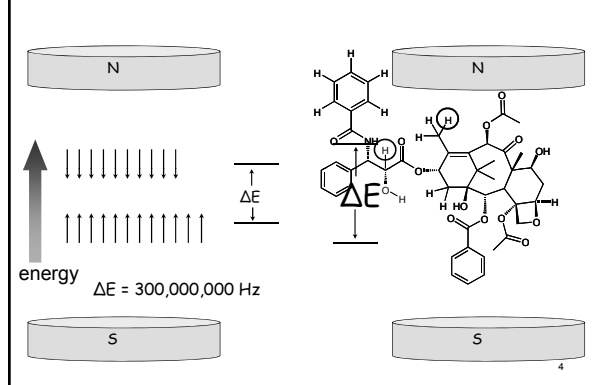
Which one of these compounds (A, B, C or D) is 2-bromo-2-methylbutane.



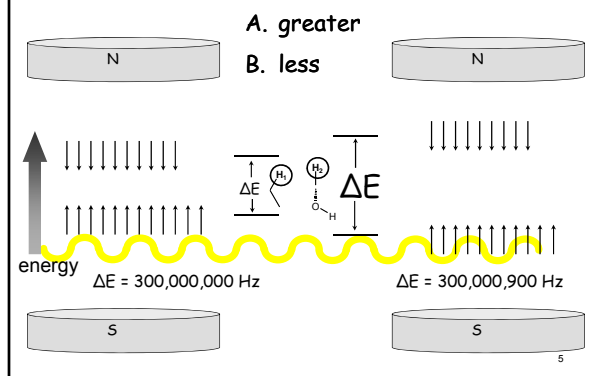
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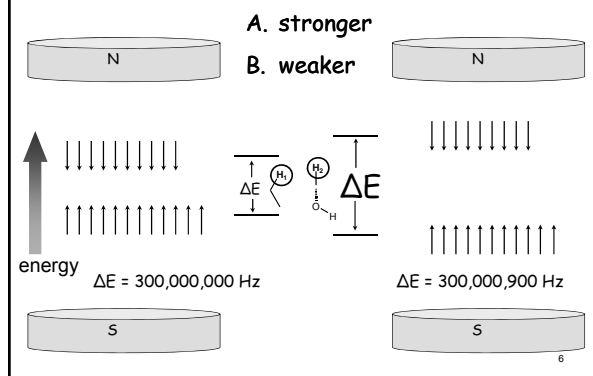
NMR spectroscopy (MRS) measures differences in nuclear spin transition energies. (molecular structure)

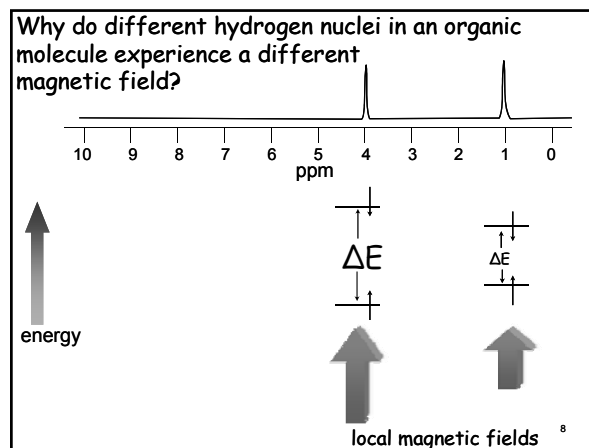
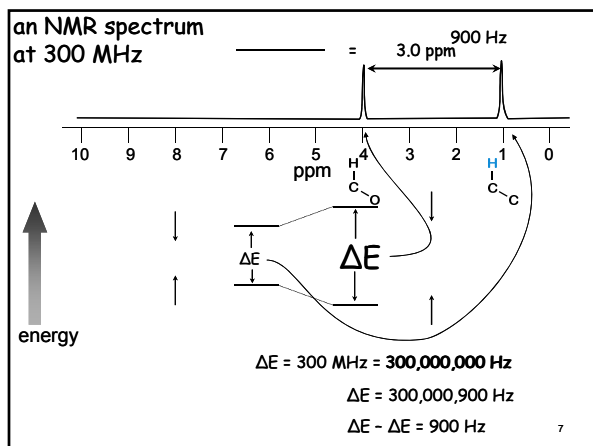


Is the frequency required to flip the magnetic moment of H_2 (A) greater or (B) less than H_1 ?

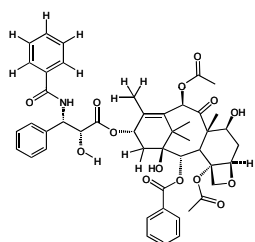


Does H_1 experience a (A) stronger or (B) weaker magnetic field than H_2 ?

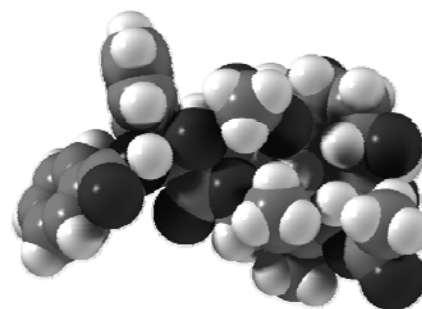




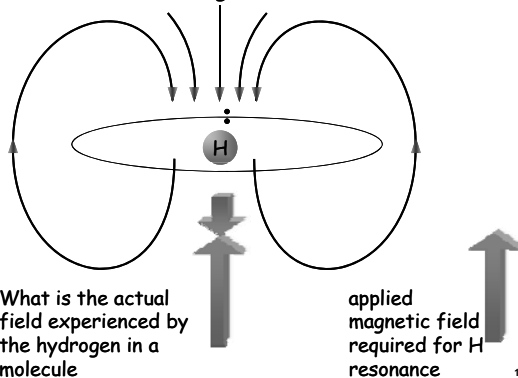
Why do different hydrogen nuclei in an organic molecule experience a different magnetic field?



Why do different hydrogen nuclei in an organic molecule experience a different magnetic field?



What is the magnetic field at a hydrogen nucleus?
induced magnetic field



What is the magnetic field at a hydrogen nucleus?
induced magnetic field

