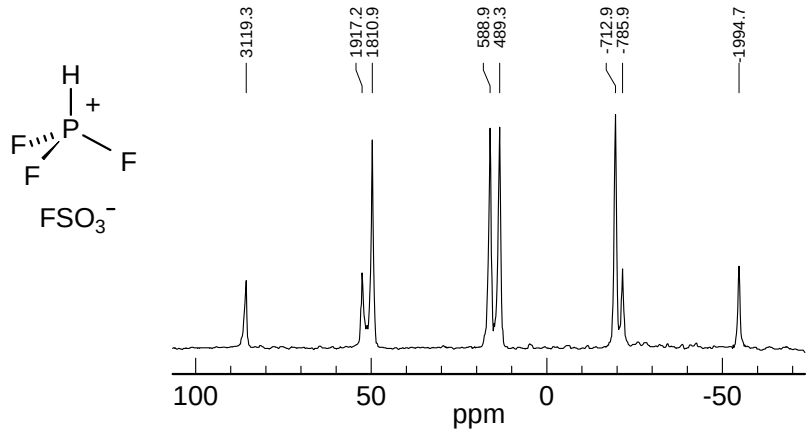
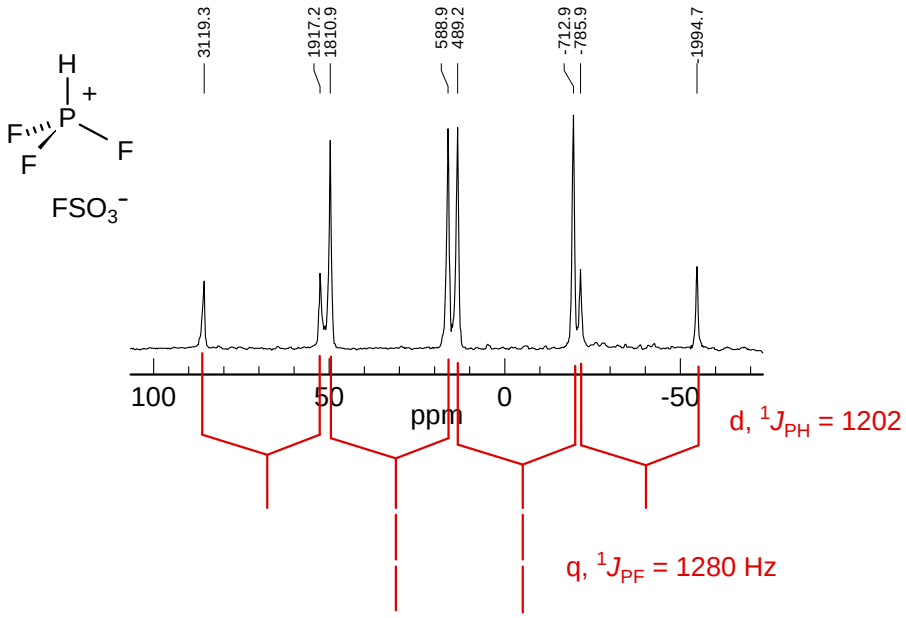
Problem R-314. Analyze the 36.44 MHz ^{31}P NMR spectrum of HPF_3^+ (in $HSO3F{\cdot}SbF_5/SO_2$) shown below. Estimate coupling constants (L. J. Vande Griend, J. G. Verkade *J. Am. Chem. Soc.* **1975**, *97*, 5958).



Problem R-314. Analyze the 36.44 MHz ^{31}P NMR spectrum of HPF_3^+ Shown below. Estimate coupling constants (L. J. Vande Griend, J. G. Verkade *J. Am. Chem. Soc.* **1975**, *97*, 5958).



qd, $^1J_{PH}$ = 1202 Hz, $^1J_{PF}$ = 1280 Hz

δ_p = 16.2

These are the values measured from the digitized spectrum above. The more accurate values reported in the paper are $^1J_{PH}$ = 1190.6 Hz, $^1J_{PF}$ = 1279.3 Hz,