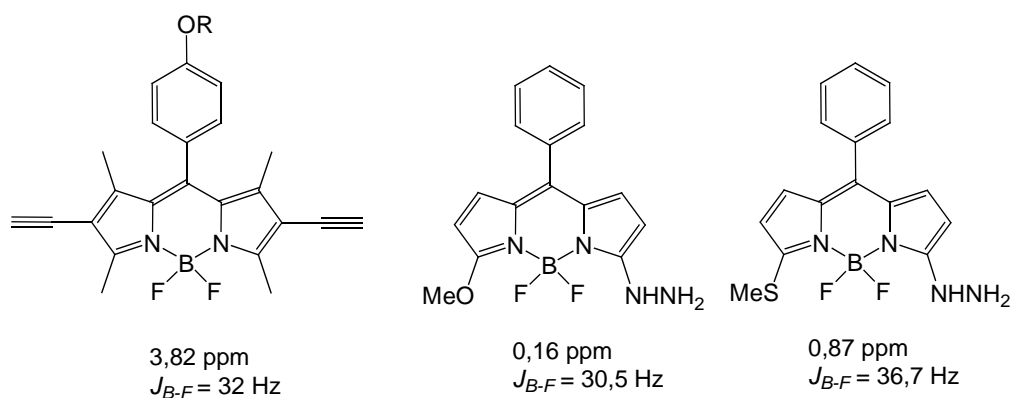


## NMR spektra boru

Ze dvou magneticky aktivních izotopů boru -  $^{10}\text{B}$  se spinem  $I = 3$  a přirozeným zastoupením 19,6% a  $^{11}\text{B}$  se spinem  $I = 3/2$  a zastoupením 80,4% je pro NMR preferován  $^{11}\text{B}$ . Rezonanční frekvence  $^{11}\text{B}$  na 500 MHz spektrometru je 160,4 MHz.

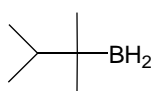
Chemické posuny zauímají rozsah asi 200 ppm a jsou obvykle referencovány vůči etheratu fluoridu boritého. Další informace o chemických posunech  $^{11}\text{B}$  lze získat na:

<http://www.chemistry.sdsu.edu/research/BNMR/>

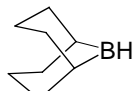


$\text{EtBF}_2$  28,6 ppm

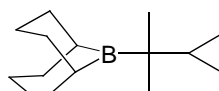
$\text{EtBCl}_2$  63,4 ppm



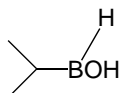
24,2 ppm  
(THF)



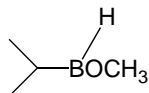
28,0 ppm  
(THF)



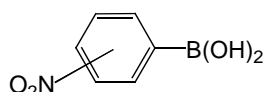
87,9 ppm  
(THF)



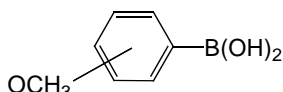
54,6 ppm



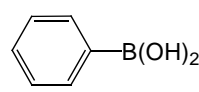
53 ppm



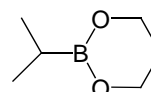
13,1 ppm



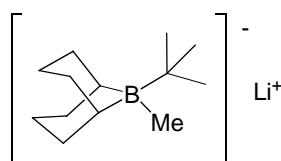
10,7 ppm



9,33 ppm

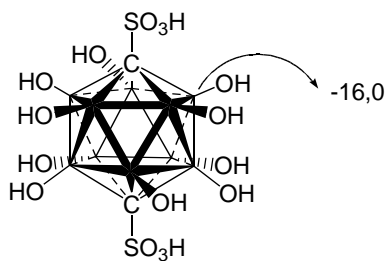
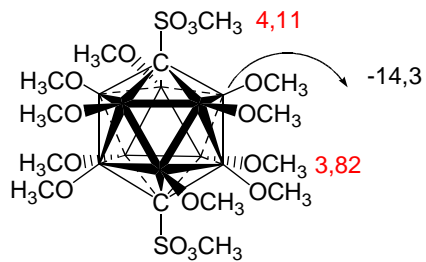
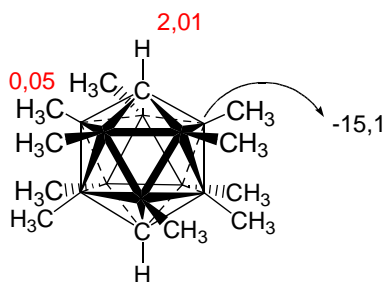
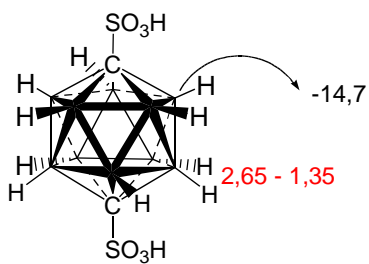
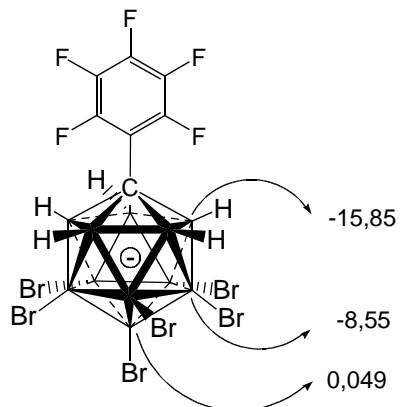
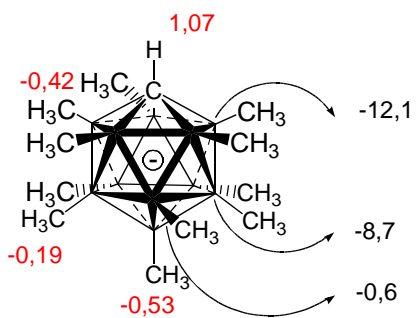
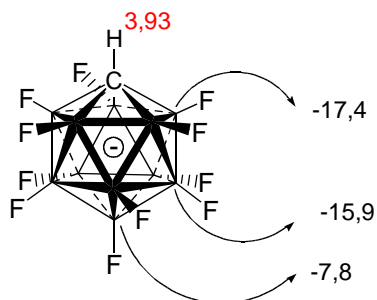
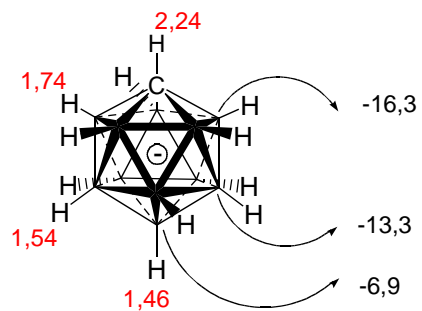


31,0 ppm



$\text{Li}^+$

-16,7 ppm  
(THF)



Vodíkové posuny jsou značeny červeně.