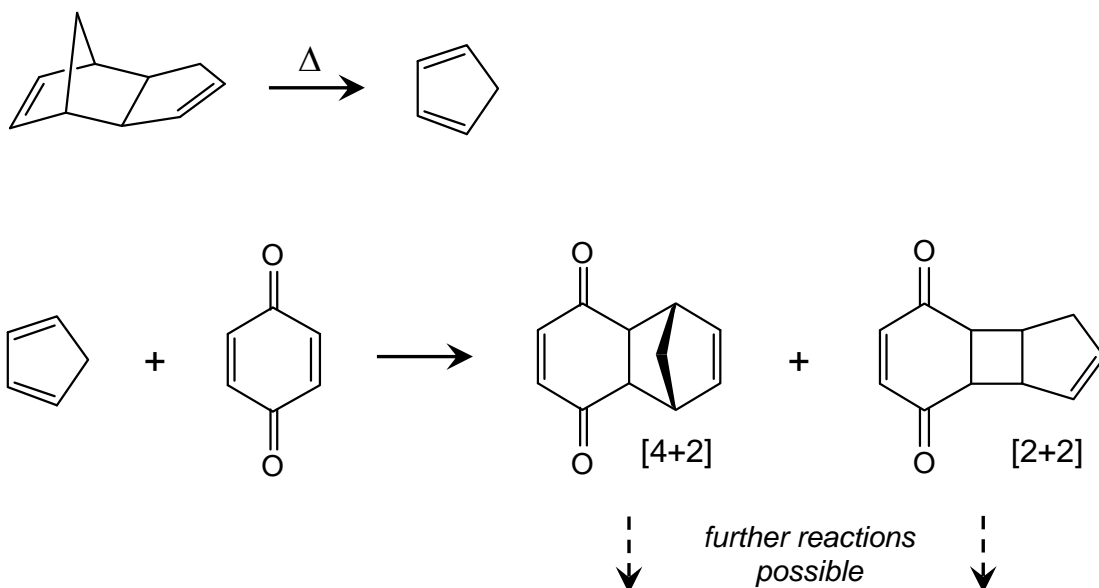


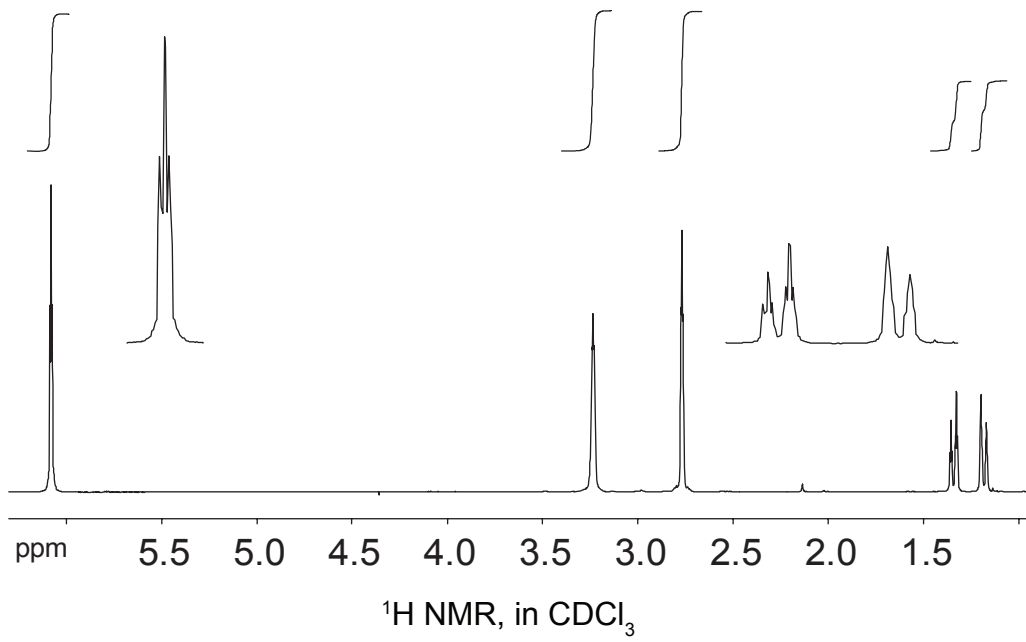
**In-Class Exercise:
DEPT-90 and DEPT-135**

When dicyclopentadiene is thermally cracked in the presence of quinone, a variety of [4+2] and [2+2] adducts between the released cyclopentadiene and the quinone are possible.

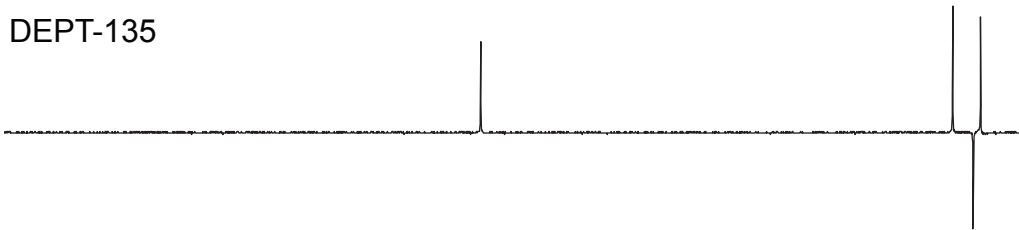


But in reality, only one product is obtained. The ^1H , ^{13}C , DEPT-135 and DEPT-90 NMR spectra of this product is shown on the next page.

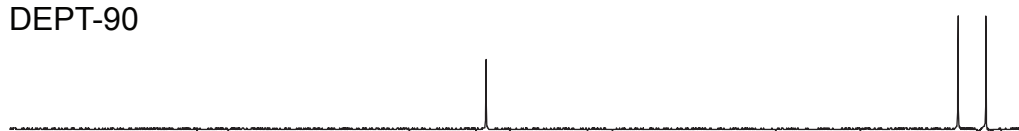
- What is the product?
- Assign each ^{13}C resonance to an inequivalent carbon in your proposed product structure.



DEPT-135



DEPT-90



^{13}C NMR, in CDCl_3

