## Chemistry 4361/8361

## Discussion Section Exercise: El Fragmentation

The EI mass spectrum of cocaine ( $R_1 = CH_3$ ,  $R_2 = Ph$ ) is shown below.



- a. For the four highest-mass fragments, what masses are being ejected from the parent? What fragmentation mechanisms might be responsible for these losses?
- b. What other (lower-mass) fragment peaks can you explain simply?

c. The mass spectra of three cocaine analogs are given below. Based on what you know about the fragmentation of cocaine, what might  $R_1$  and  $R_2$  be for these three compounds?

