

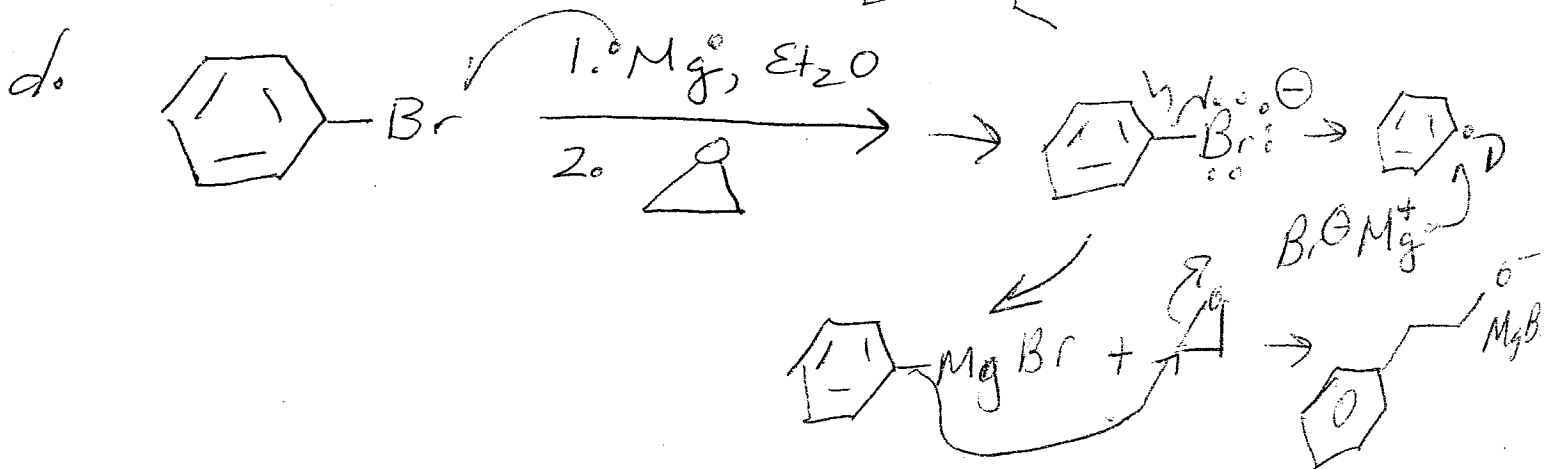
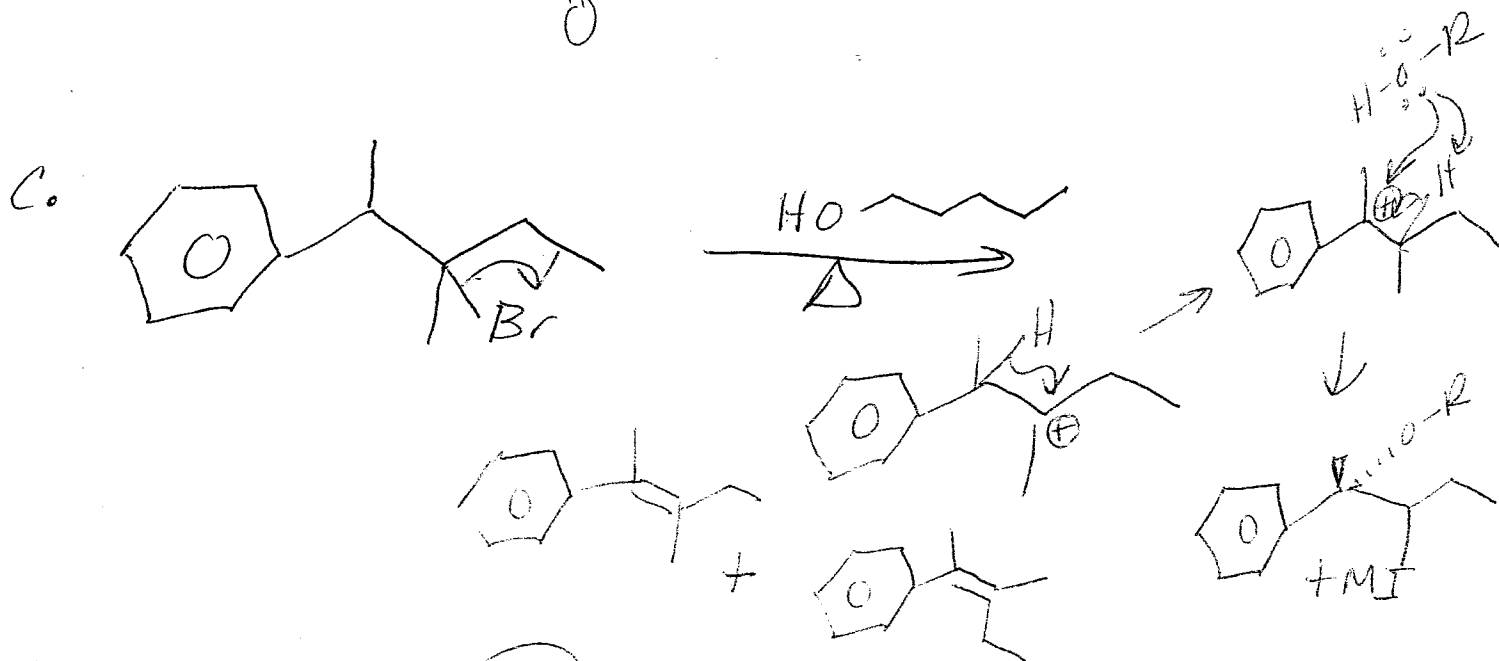
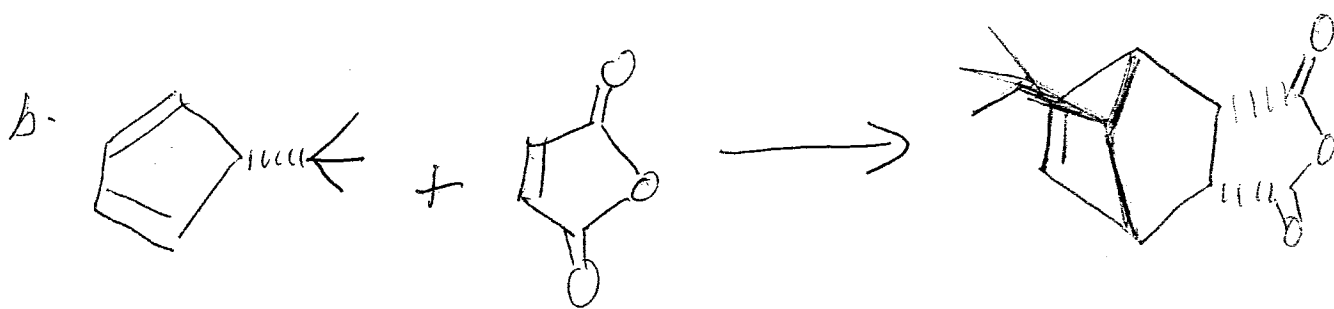
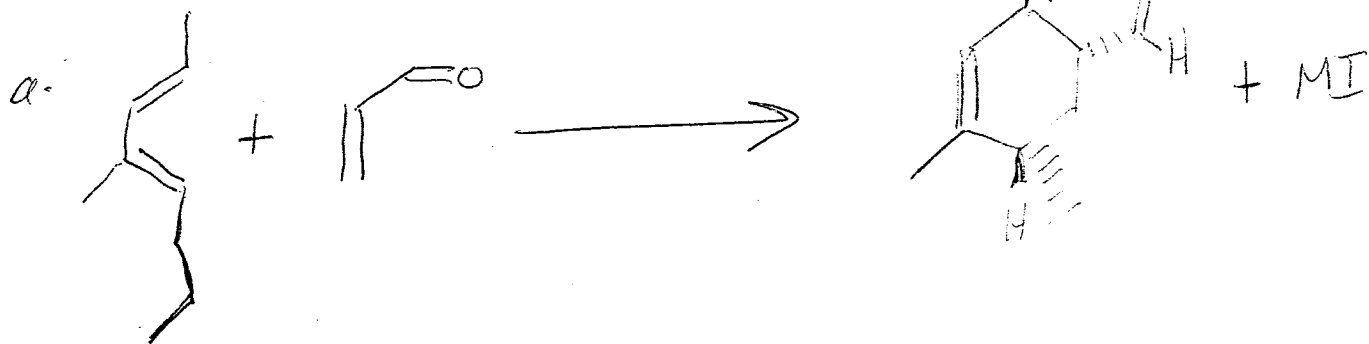
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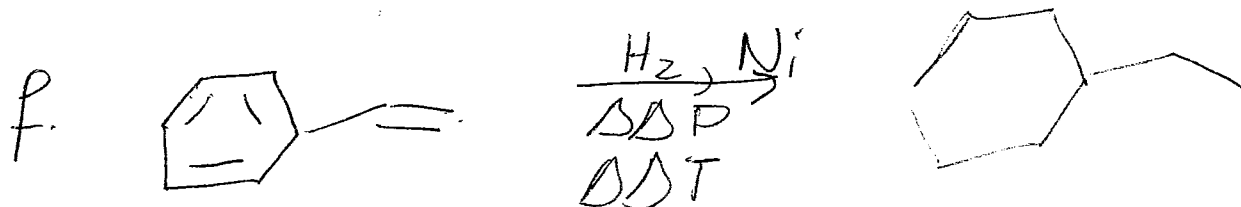
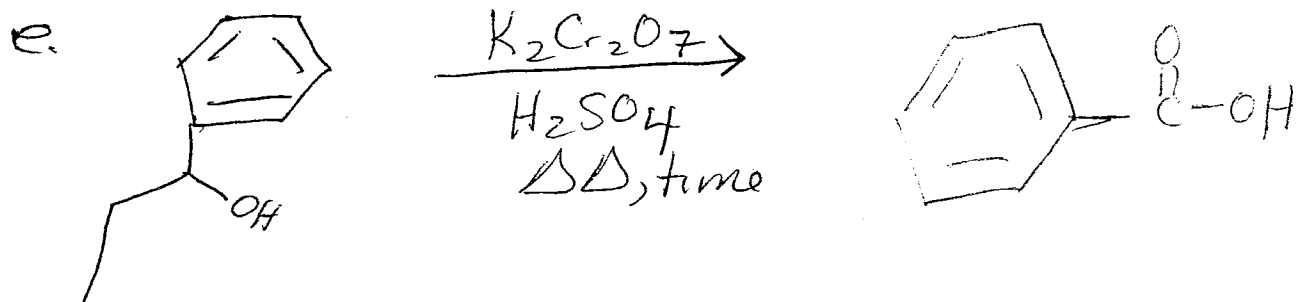
ANSWERS SCANU

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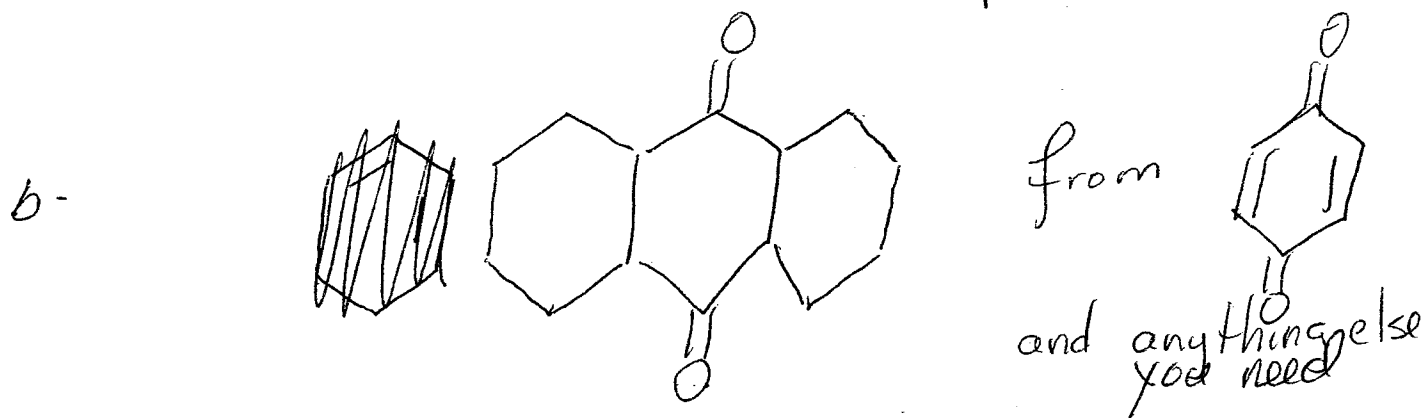
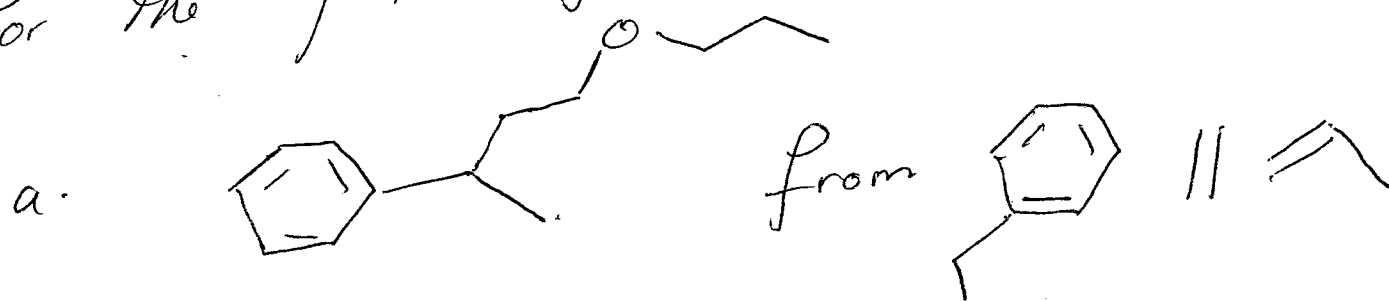
Afternoon

Write products and mechanisms where applicable

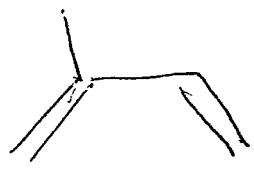




Write a synthetic plan (outline a synthesis) for the following molecules



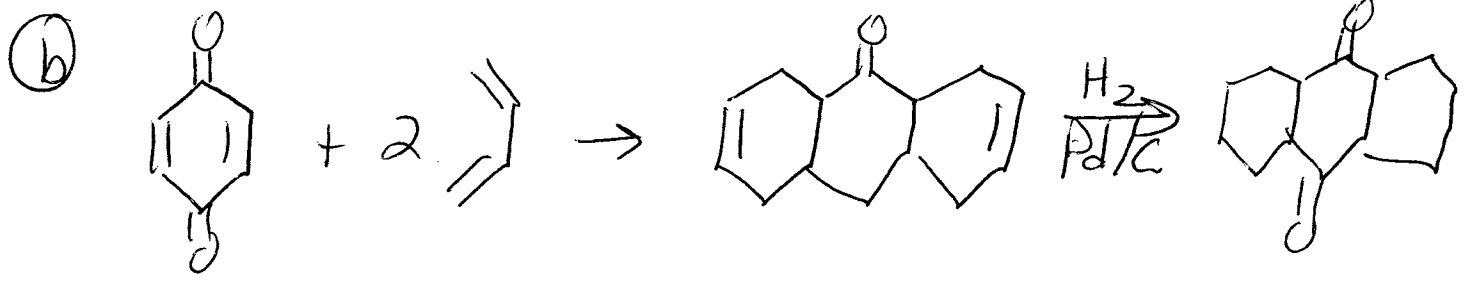
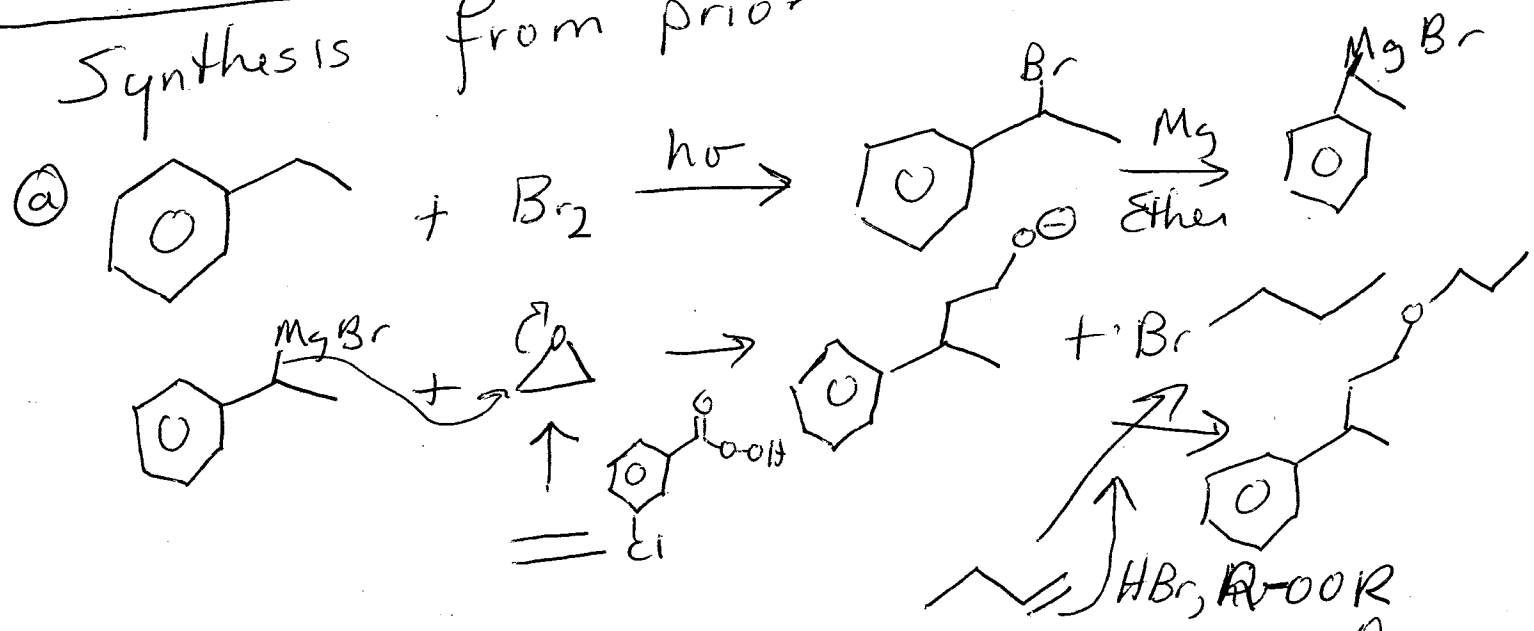
isoprene



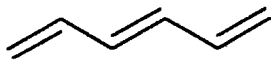
① Find isoprene units in terpenes

② Write mechanism (arrows) for biosynthesis

Synthesis from prior



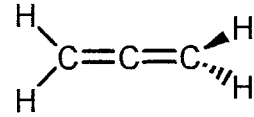
Catch Up Notes.....



Conjugated



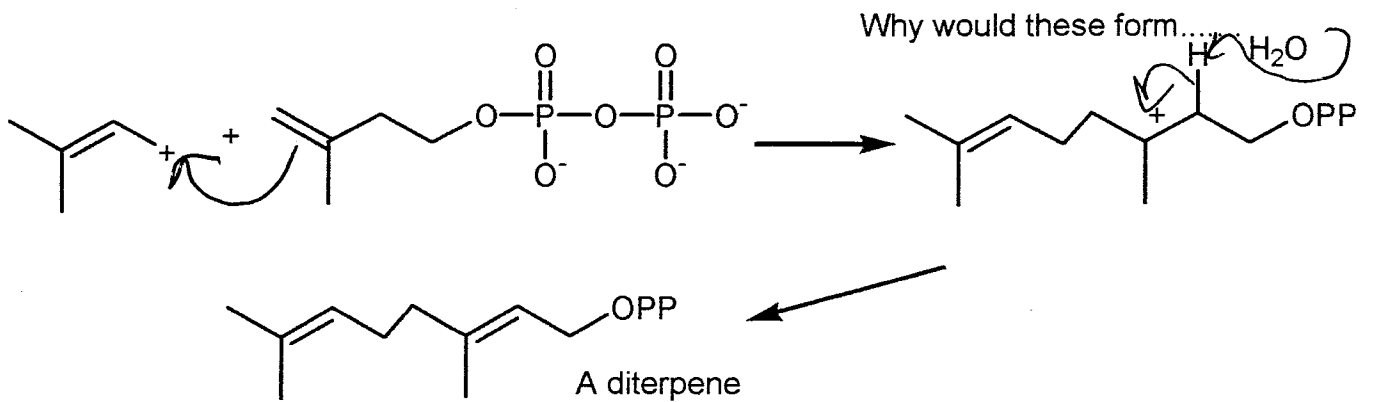
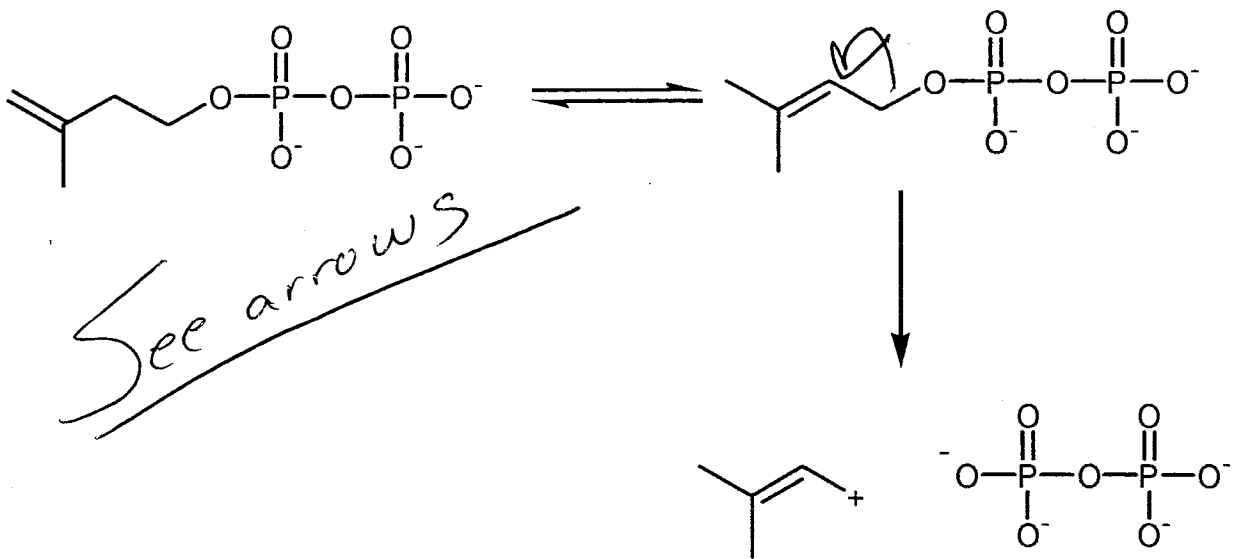
isolated
no conjugation



cummulated
no conjugation

Terpenes.....

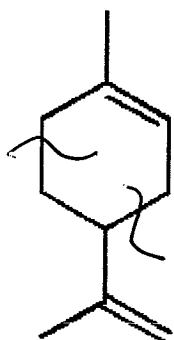
biosynthesis - biochemistry is organic chemistry



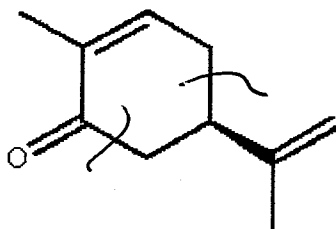
distilling temperature and volatile enough to contribute to the vapor pressure. . As mentioned previously in this lab, steam distillation is an excellent way to exhaustively isolate a volatile organic material from a solid matrix. In addition to its use as a fragrance and flavoring, clove oil has medicinal applications. It has been used as a dental analgesic for thousands of years.

Eugenol and acetyleugenol belong to a class of compounds called vanilloids. The structures of several of these compounds are shown on the following pages. Several of the vanilloids will be available for you to test for scent in lab . In addition to clove oil, vanillin (from vanilla beans), ethyl vanillin (artificial vanillin) and vanillyl alcohol (obtained from the chemical reduction of vanillin) will also be available for comparison. Shown on the following pages, but not included for scent testing is capsaicin. Capsaicin is the compound that gives hot chili peppers their bite. Capsaicin and related compounds are being studied for their pain relieving properties and capsaicin is used in bird seed to keep the squirrels out. Anyone who has a standard bird feeder knows that squirrels are the most acrobatic and persistent creatures in the world. They can consume almost any bird feeder and its contents in a matter of days. Capsaicin is helpful because the birds don't mind the taste, but the squirrels dislike it. In this lab, it is desired that you will be able to determine the parts of the molecule that are responsible for the **quantity and quality of the scents you experience**.

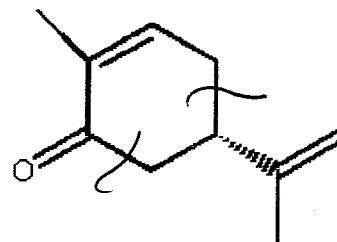
Scented Terpenes



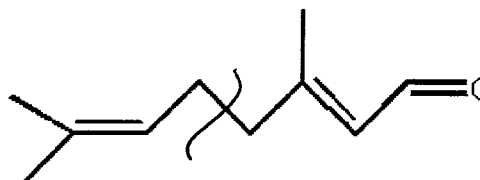
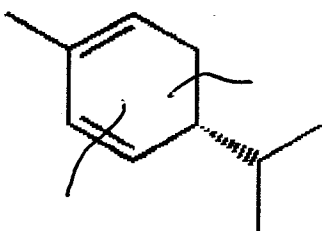
limonene



R-(-)-carvone



S-(+)-carvone



citral (a mixture of cis and trans)