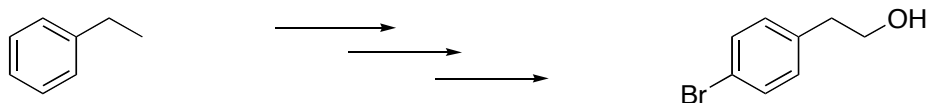


Problems from your text

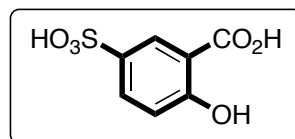
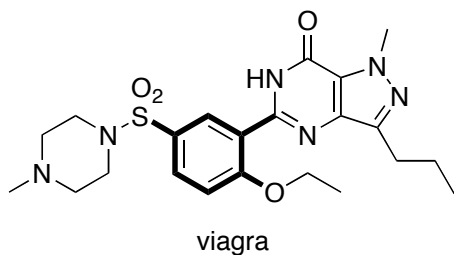
16.1, 16.3, 16.4, 16.7, 16.8, 16.10, 16.15, 16.22, 16.23, 16.24, 16.30, 16.31, 16.35, 16.40, 16.44, 16.47, 16.51, 16.52, 16.53, 16.63, 16.73

Additional Practice Problems

Starting from ethylbenzene and any other inorganic reagents you need, show how you would synthesize the following molecule.

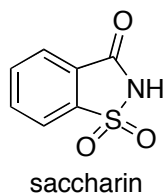


The structure of the pharmaceutical drug, viagra is shown below. At the core of viagra is a trisubstituted benzene ring. The structure on the right could be a potential intermediate for the preparation of viagra. Show how you would synthesis this trisubstituted derivative starting from benzene and any other reagents you need. Hint - you should be able to do this in five steps.

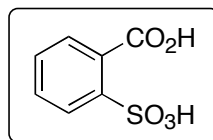


synthesize this  
from benzene

Saccharin is an artificial sweetener used in those pink packets. It might be synthesized from the benzoic acid with an ortho-sulfonic acid group. Show you would synthesize this from benzene.



could be made from



synthesize this  
from benzene