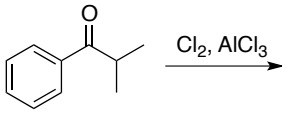
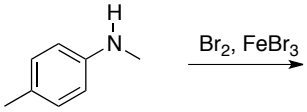
Organic Chemistry I Jasperse
Test 4 Extra Practice: Predict product and draw mechanism (p 1,2); predict product (p 3,4); synthesis design (p5)

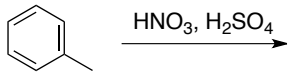
A. Aromatic Substitution Predict Product and Draw the Reaction Mechanisms

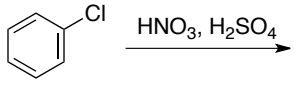
- Draw the major product and the mechanism for each of the following reactions, using detailed arrow-pushing.
- Draw the resonance structures for carbocationic intermediate.

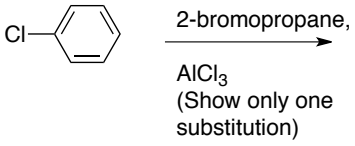
Note: See pages 3 and 4 for more production prediction problems.
See page 5 for some synthesis design problems.

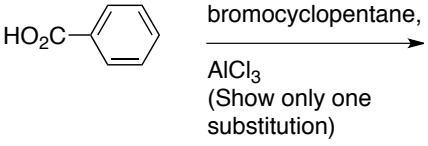
1. 

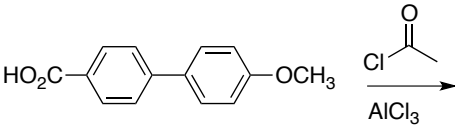
2. 

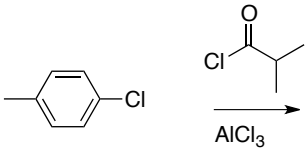
3. 

4. 

5. 
Cl
2-bromopropane,
AlCl3
(Show only one
substitution)

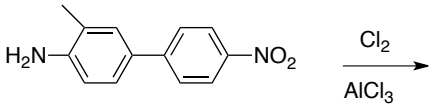
6. 
HO2C
bromocyclopentane,
AlCl3
(Show only one
substitution)

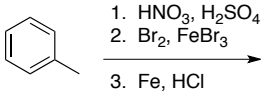
7. 
HO2C
OCH3
O
Cl
AlCl3

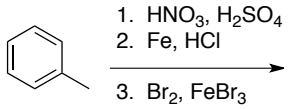
8. 
Cl
O
Cl
AlCl3

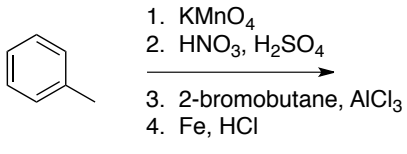
B. Draw the major product for the following reactions.

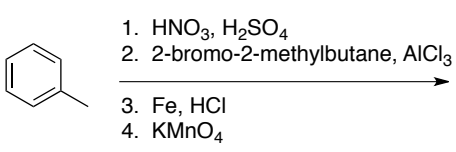
1. 

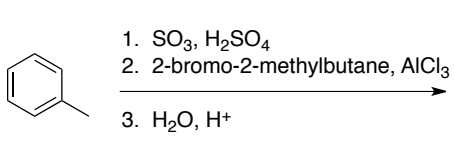
2. 

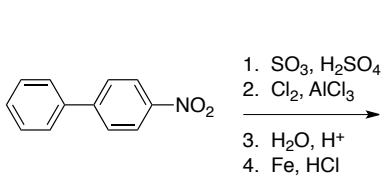
3. 

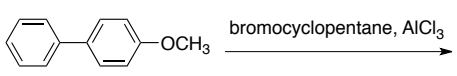
4. 

5. 

6. 

7. 

8. 

9. 

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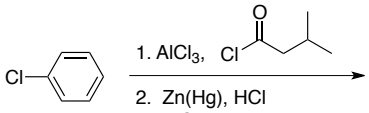
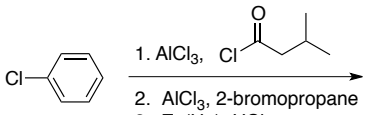
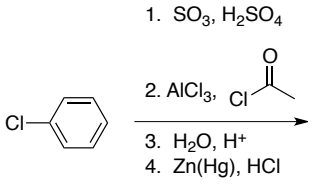
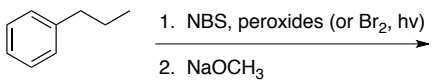
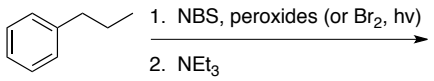
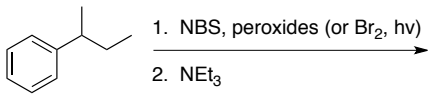
11. 

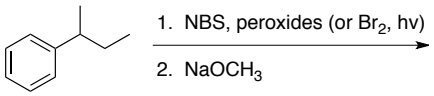
12. 

13. 

14. 

15. 

16. 

17. 

Design Syntheses for the following transformation:

1. 

2. 

3. 

4. 

5.