

# *Chem 41c Quiz 1*

Stoltz, Spring 2007

April 6, 2007

Due April 9, 2007 9:55 AM

You have 25 min to take this quiz. It is closed note, closed book, and no collaboration is allowed. Please do not discuss the quiz with anyone until you receive it back graded. There is no partial credit.

*Do Not Open until you are Ready  
to take the Quiz. Once you open  
this you have 25 min.*

# Chem 41c Quiz 1

Stoltz, Spring 2007

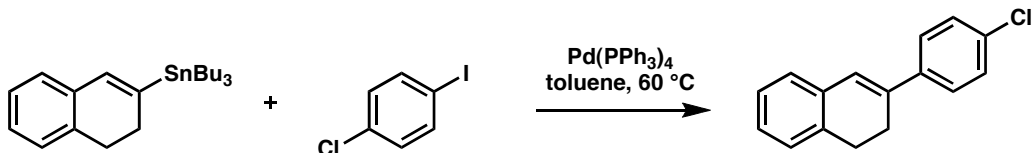
April 6, 2007

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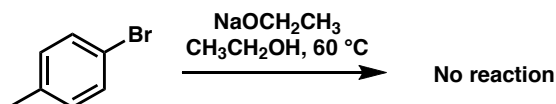
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Predict the products (if any) of the following reactions: (5 points each)

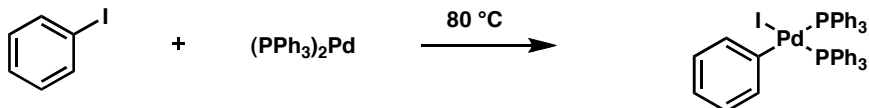
1.



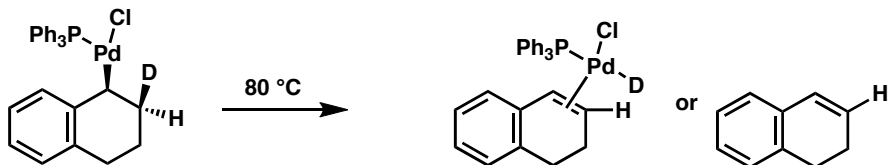
2.



3.

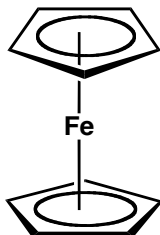


4.



**Bonus (5 points)**

In the following complex, what is the formal oxidation state of the metal, the  $d^n$  description, and the electron count? Feel free to use the periodic table on the next page (no partial credit).



**Fe(II)**

**or**

**Fe<sup>2+</sup>**

**$d^6$**

**18 electron complex**

GROUP

1 1A

2 2A

3 3A

4 4A

5 5A

6 6A

7 7A

8 8A

9 9A

10 10A

11 11A

12 12A

13 13A

14 14A

15 15A

16 16A

17 17A

18 18A

GROUP NUMBERS

IUPAC RECOMMENDATION (1985)

GROUP NUMBERS

CHEMICAL ABSTRACT SERVICE (1986)

ATOMIC NUMBER

5

RELATIVE ATOMIC MASS (1)

10.811

SYMBOL

B

ELEMENT NAME

BORON

GROUP

1 1A

2 2A

3 3A

4 4A

5 5A

6 6A

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10 10A

11 11A

12 12A

13 13A

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15 15A

16 16A

17 17A

18 18A

GROUP

1 1A

2 2A

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5 5A

6 6A

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