

# Unit 16 - WEEK 12 : ORGANIC TRANSFORMATIONS-USING LANTHANIDES REAGENTS

## Course outline

How to access the portal?

Week 0: Prerequisites

WEEK 1: OXIDIZING AGENT IN ORGANIC TRANSFORMATION PART-I

Week 2 : OXIDIZING AGENT IN ORGANIC TRANSFORMATION PART-II

Week 3 : REDUCING AGENT IN ORGANIC TRANSFORMATION PART-I

Week 4 : REDUCING AGENT IN ORGANIC TRANSFORMATION PART-II

Week 5: ORGANIC TRANSFORMATIONS-USING NON-TRANSITION METALS PART-I

Live Session-1

Week 6: ORGANIC TRANSFORMATIONS-USING NON-TRANSITION METALS PART-II

Week 7: Organic Transformations-Using Non-Transition Metals Part-III

Week 8: ORGANIC TRANSFORMATIONS-USING TRANSITION METALS PART-I

week 9: ORGANIC TRANSFORMATIONS-USING TRANSITION METALS PART-II

Live Session-2

Week 10 : ORGANIC TRANSFORMATIONS-USING TRANSITION METALS PART-III

Week 11: ORGANIC TRANSFORMATIONS-USING TRANSITION METALS PART-IV

WEEK 12 : ORGANIC TRANSFORMATIONS-USING LANTHANIDES REAGENTS

 Lec 1: INTRODUCTION TO LANTHANIDES and Sm BASED REAGENTS

 Lec 2: SAMARIUM(II) IODIDE BASED REAGENTS IN ORGANIC SYNTHESIS

 Lec 3: Sm and Yb BASED REAGENTS IN ORGANIC SYNTHESIS

 Quiz : Assignment - 12

 Feedback form

Live Session-3

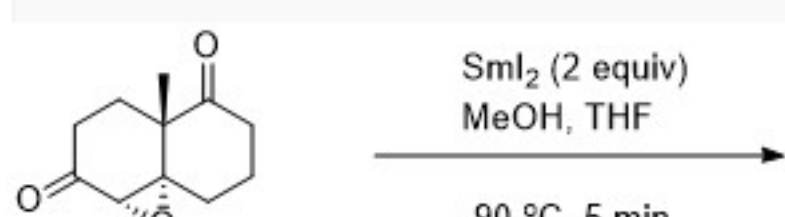
## Assignment - 12

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2019-10-23, 23:59 IST.

1) Predict the product of the following reaction:

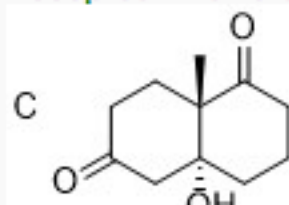
2 points



- A 
  
 B 
  
 C 
  
 D

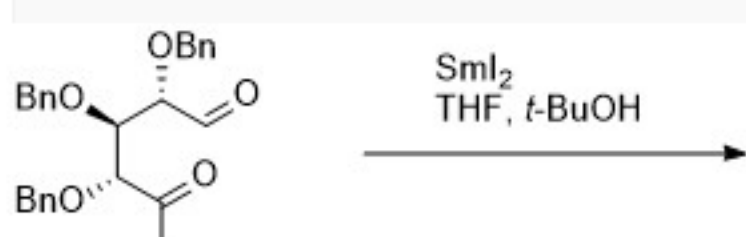
No, the answer is incorrect. Score: 0

Accepted Answers:



2) Predict the product of the following reaction:

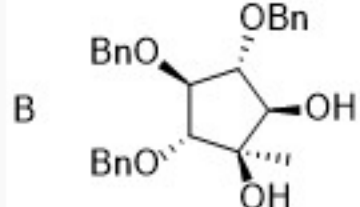
2 points



- A 
  
 B 
  
 C 
  
 D

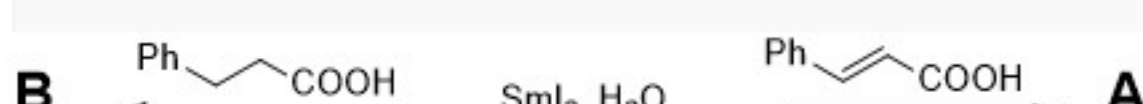
No, the answer is incorrect. Score: 0

Accepted Answers:



3) Predict the product A and B, respectively:

2 points



- A      
  
 B      
  
 C      
  
 D

No, the answer is incorrect. Score: 0

Accepted Answers:



4) Predict the following statements as True/ False.

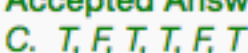
2 points

- a) The outer electronic configuration of  $Sm^{2+}$  is 4f7.  
 b) Selective reduction of aldehyde in the presence of ketone could occur with  $NaBH_4$ ,  $CeCl_3 \cdot 6H_2O$  in  $EtOH/H_2O$ .  
 c)  $Ce^{4+}$  is the only tetrapositive lanthanide stable in water.  
 d) Kagan et al. reported that carboxylic acid, ester and nitrile could not be reduced by samarium iodide.  
 e) Trans-cinnamic alcohol could be reduced with samarium diiodide and HMPA.  
 f) The lanthanide salts generated after completion of the reaction are considerably less toxic than the tin by-products.

- A. F, F, F, T, F, T  
 B. T, F, T, F, F, T  
 C. T, F, T, T, F, T  
 D. T, F, F, T, F, T

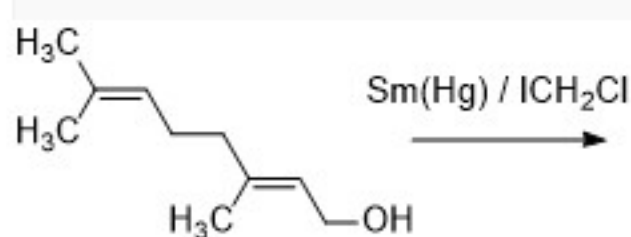
No, the answer is incorrect. Score: 0

Accepted Answers:



5) Predict the product of the following reaction:

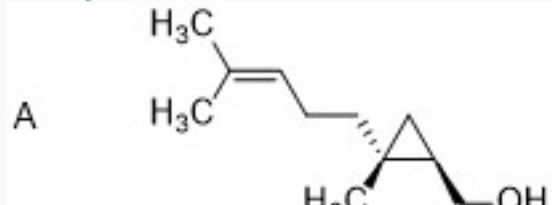
2 points



- A 
  
 B 
  
 C 
  
 D No reaction

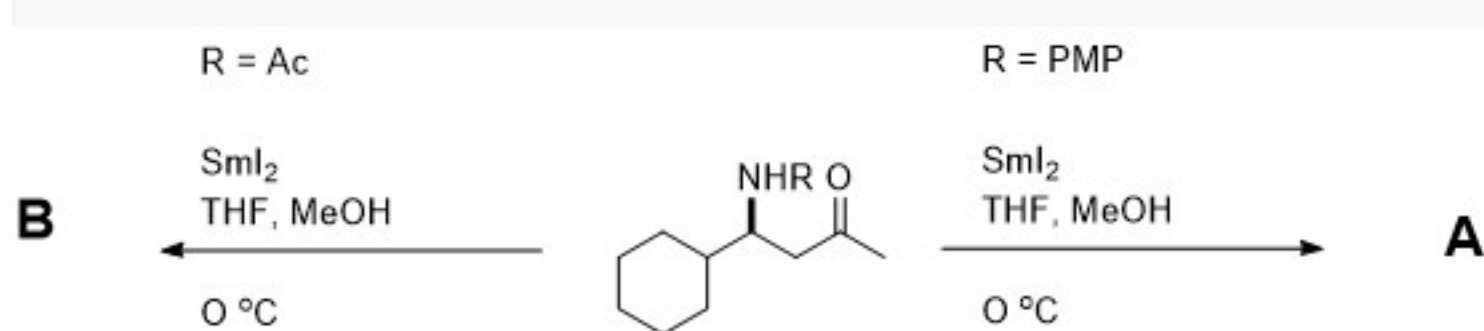
No, the answer is incorrect. Score: 0

Accepted Answers:



6) Predict A and B, respectively :

2 points



- A 
  
 B 
  
 C 
  
 D

No, the answer is incorrect. Score: 0

Accepted Answers:

