

APOLLO

Functional groups: Classification of organic compounds

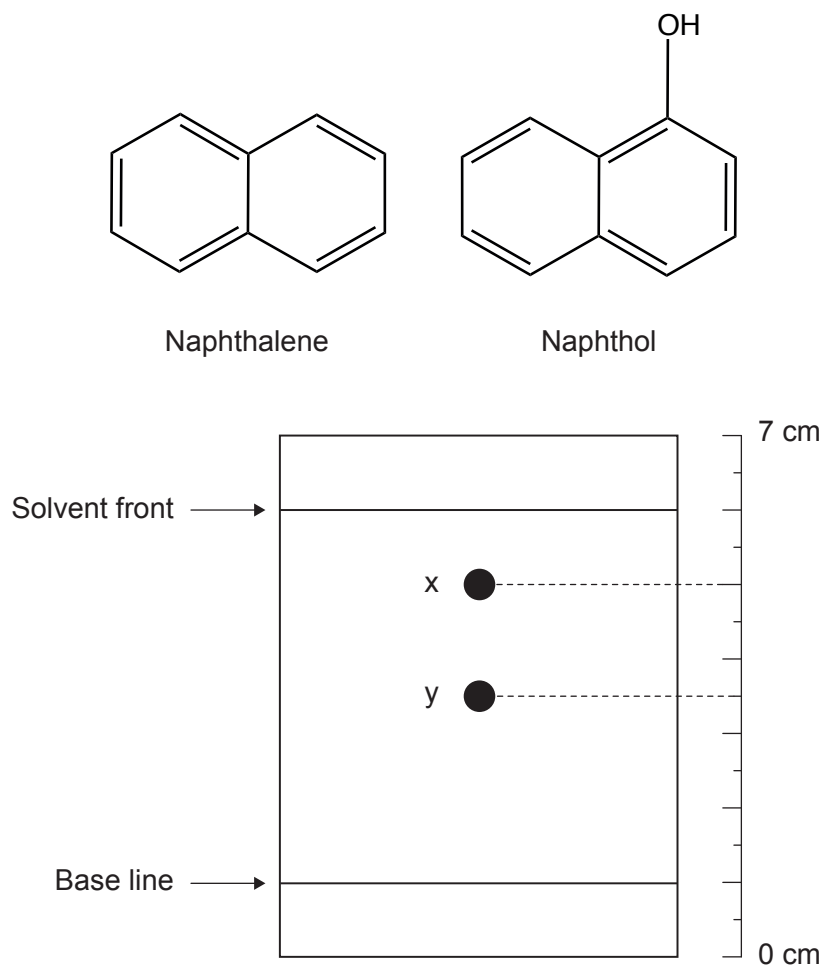
SL

Chemistry

First assessment 2025

9 questions | questions

12. The following thin-layer chromatogram was obtained from a mixture of naphthalene, $C_{10}H_8$, and naphthol, $C_{10}H_8O$. A polar silica was used as the stationary phase, and a non-polar hexane as the mobile phase.



What are the position and retardation factor (R_F) of naphthalene?

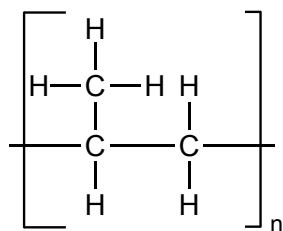
- A. y and 0.50
- B. y and 0.58
- C. x and 0.80
- D. x and 0.83

Turn over

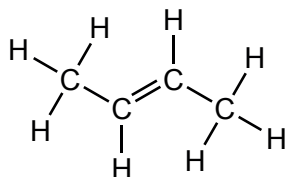
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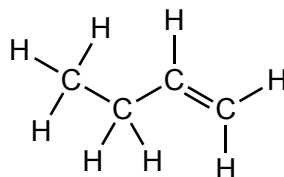
10. Which monomer produces this addition polymer?



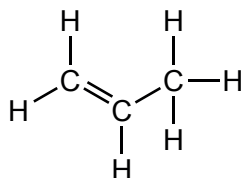
A.



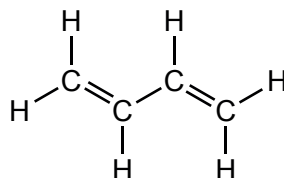
B.



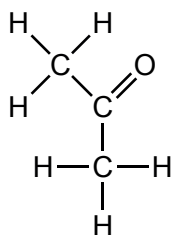
C.



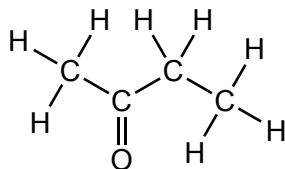
D.



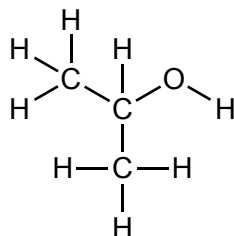
14. Which compound is an isomer of propanone?



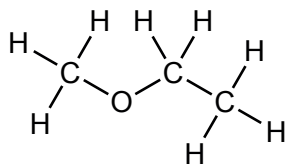
A.



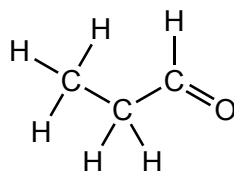
B.



C.



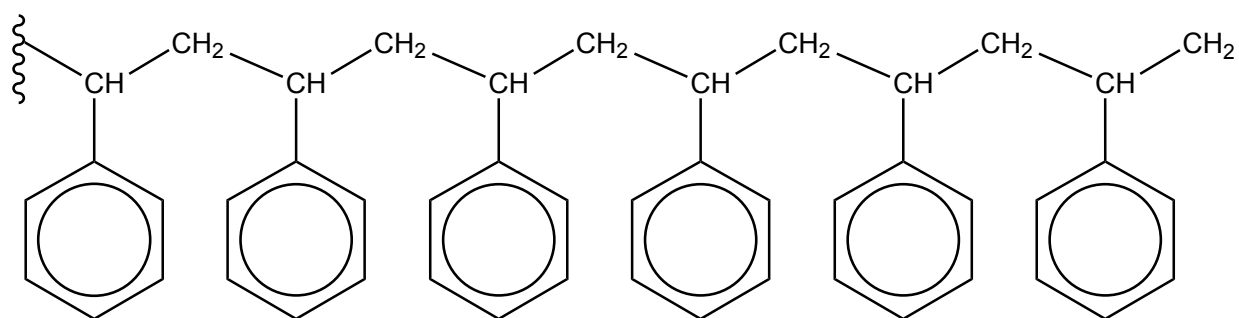
D.



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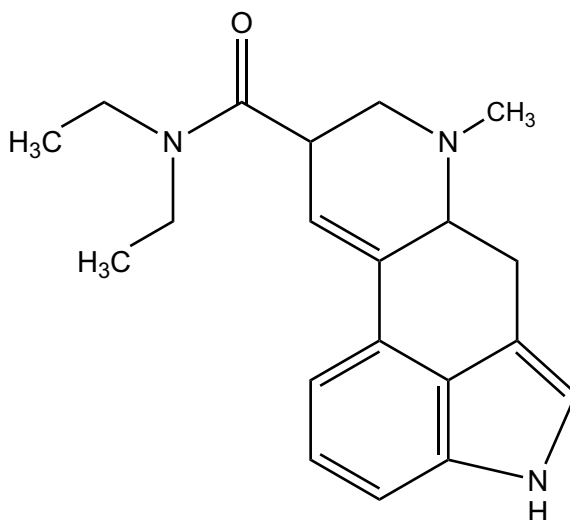
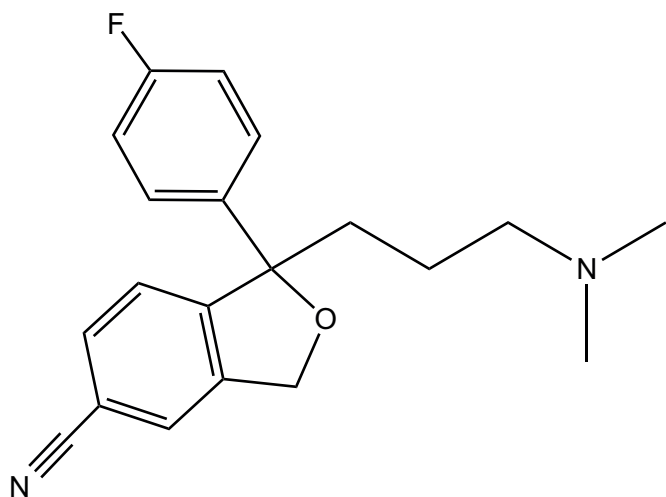
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10. Which monomer could produce this polymer?



- A. $\text{C}_6\text{H}_6\text{CH}_2\text{CH}_2$
- B. $\text{C}_6\text{H}_6\text{CHCH}_2$
- C. $\text{C}_6\text{H}_5\text{CHCH}_2$
- D. $\text{C}_6\text{H}_5\text{CH}_2\text{CH}_2$

15. Which functional groups are present in both of these molecules?

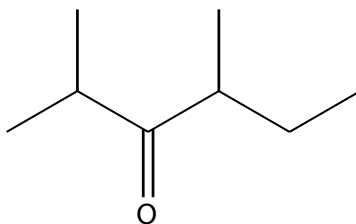


- A. Amino and amido
- B. Amino and alkoxy
- C. Amino and carbonyl
- D. Amino and a benzene ring

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13. What is the IUPAC name of the molecule below?



- A. 2-ethyl-4-methylpentan-3-one
- B. 4-ethyl-2-methylpentan-3-one
- C. 2,4-dimethylhexan-3-one
- D. 3,5-dimethylhexan-4-one

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Turn over

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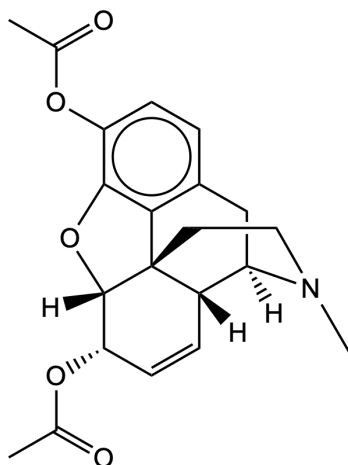
15. Which formula represents an amide?

- A. $\text{C}_6\text{H}_5\text{NH}_2$
- B. CH_3CONH_2
- C. $(\text{CH}_3)_2\text{NH}$
- D. $\text{NH}_2\text{CH}_2\text{COOH}$

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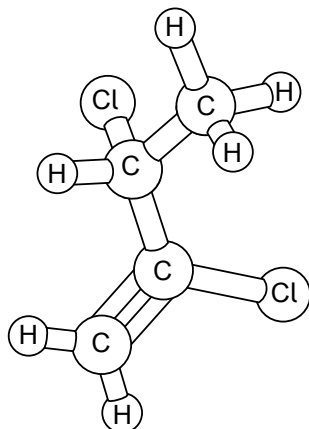
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12. Which functional groups are present in this molecule?

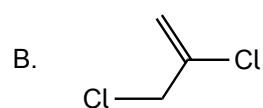


- A. amino, alkoxy, ester
- B. ether, carboxyl, amino
- C. carboxyl, alkoxy, ester
- D. ester, amino, carboxyl

14. Which is a correct alternative representation of this molecule?



A. $\text{C}_3\text{H}_6\text{Cl}_2$



C. 2,2-dichlorobut-1-ene

D. $\text{CH}_3\text{CHClC}(\text{Cl})=\text{CH}_2$