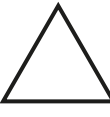
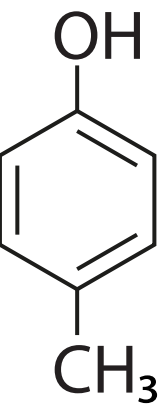


Цепочки по теме «Спирты и фенол»

- 1 $\text{C}_6\text{H}_{12}\text{O}_6 \longrightarrow \text{C}_2\text{H}_5\text{OH}$
 - $\xrightarrow{\text{CuO}, t^\circ} \text{X}_1 \longrightarrow \text{C}_2\text{H}_5\text{OH}$
 - $\xrightarrow{\text{Al}_2\text{O}_3, 450^\circ\text{C}} \text{X}_2 \longrightarrow \text{C}_2\text{H}_5\text{OH}$
 - $\xrightarrow{\text{ZnO}, \text{Al}_2\text{O}_3, t^\circ} \text{X}_3$
- 2 CH_4
 - $\longrightarrow \text{синтез-газ} \longrightarrow \text{CH}_3\text{OH} \xrightarrow{\text{Ag}, t^\circ} \text{X}_1$
 - $\longrightarrow \text{C}_2\text{H}_2 \longrightarrow \text{C}_6\text{H}_6 \longrightarrow \text{X}_2 \longrightarrow \text{фенол} \xrightarrow{\text{X}_1} \dots$
- 3 пропен $\xrightarrow{\text{Cl}_2, 550^\circ\text{C}} \text{X}_1 \xrightarrow{\text{NaOH}, \text{H}_2\text{O}} \text{X}_2 \xrightarrow{\text{KMnO}_4, \text{H}_2\text{O}, 0^\circ} \text{X}_3$
 - $\xrightarrow{\text{HNO}_3 (\text{изб.})} \text{X}_4$
 - $\xrightarrow{\text{CH}_3\text{COOH} (\text{изб.})} \text{X}_5$
- 4  $\longrightarrow \text{X}_1 \xrightarrow{\text{NaOH}, \text{H}_2\text{O}} \text{пропанол-1}$
 - $\longrightarrow \text{C}_6\text{H}_{14}\text{O}$
 - $\longrightarrow \text{C}_4\text{H}_8\text{O}_2$
 - $\longrightarrow \text{C}_3\text{H}_7\text{OK} \longrightarrow \text{C}_4\text{H}_{10}\text{O}$
- 5 C_2H_2
 - $\longrightarrow \text{C}_6\text{H}_6 \longrightarrow \text{C}_6\text{H}_5\text{Cl} \xrightarrow{\text{NaOH}, p, t^\circ} \text{X}_2 \xrightarrow{\text{CO}_2, \text{H}_2\text{O}} \text{X}_3$
 - $\longrightarrow \text{X}_1 \xrightarrow{\text{H}_2, \text{кат.}} \text{C}_2\text{H}_5\text{OH} \xrightarrow{\text{X}_3, \text{H}_3\text{PO}_4} \text{C}_{12}\text{H}_{18}\text{O}$
- 6 
 - $\xrightarrow{\text{Br}_2, \text{изб.}} \text{X}_1$
 - $\xrightarrow{\text{H}_2, \text{кат.}} \text{X}_2$
 - $\xrightarrow{\text{H}_2\text{SO}_4, 180^\circ\text{C}} \text{X}_3 \xrightarrow{\text{KMnO}_4, \text{H}_2\text{O}, 0^\circ} \text{X}_4$
 - $\xrightarrow{\text{K}_2\text{Cr}_2\text{O}_7, \text{H}_2\text{SO}_4} \text{X}_5$
- 7 $\text{C}_3\text{H}_8\text{O} \longleftarrow \text{X}_1 \xrightarrow{\text{HCl}} \text{X}_2$
 - $\xrightarrow{\text{KMnO}_4, \text{H}_2\text{SO}_4, t^\circ} \text{C}_2\text{H}_4\text{O}_2 \xrightarrow{\text{X}_2} \text{X}_5$
 - $\xrightarrow{\text{ZnO}, \text{Al}_2\text{O}_3, t^\circ} \text{X}_3 \xrightarrow{2\text{H}_2} \text{X}_4 \longrightarrow \text{C}_2\text{H}_4\text{O}_2$
- 8 C_2H_4
 - $\xrightarrow{\text{KMnO}_4, \text{H}_2\text{O}, 0^\circ} \text{X}_2$
 - $\xrightarrow{\text{O}_2, \text{Ag}} \text{X}_1 \xrightarrow{\text{H}_2\text{O}} \text{X}_2$
 - $\xrightarrow{\text{Cu(OH)}_2} \text{X}_3$
 - $\xrightarrow{\text{CH}_3\text{COOH}, 1:1} \text{X}_4$
- 9 кумол \longrightarrow фенол
 - $\xrightarrow{\text{HNO}_3 (\text{изб.})} \text{X}_1$
 - $\xrightarrow{\text{H}_2, \text{кат.}} \text{X}_2 \xrightarrow{\text{PCl}_5} \text{X}_3 \xrightarrow{\text{KOH} (\text{спирт.})} \text{X}_4 \xrightarrow{\text{KMnO}_4, \text{H}_2\text{SO}_4} \text{X}_5 \xrightarrow{2\text{CH}_3\text{OH}} \text{X}_6$
- 10 $\text{CH}_2(\text{OH})-\text{CH}(\text{OH})-\text{CH}_3 \xrightarrow{\text{HCl}} \text{X}_1 \longrightarrow \text{пропен} \xrightarrow{\text{H}_2\text{O}, \text{H}^+} \text{X}_2 \xrightarrow{\text{C}_6\text{H}_5\text{COOH}} \text{X}_3$