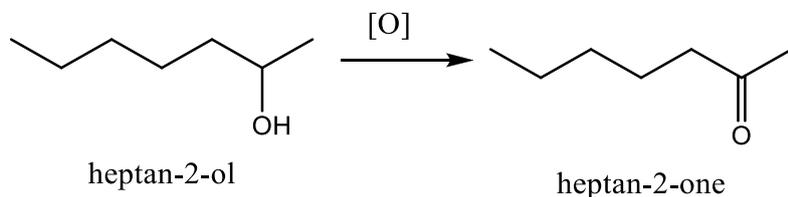


Answer on Question#57606 – Chemistry – Organic chemistry

Question: Suggest two syntheses of the bee pheromone heptan-2-one

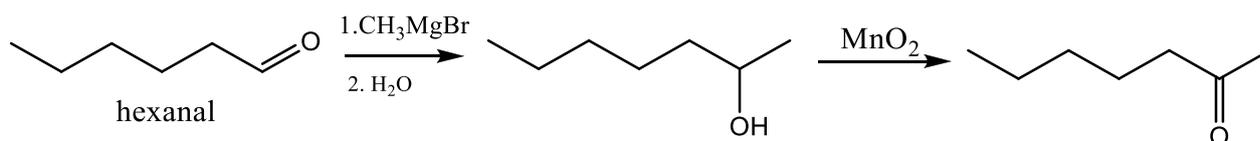
Answer:

The best method for preparing heptan-2-one is the selective oxidation of heptan-2-ol:



Both syntheses should include this stage. But we can use different selective oxidizing agents such as MnO_2 for the first synthesis and CrO_3 for the second. Besides we can use different aldehydes and organometallic compounds for synthesis of 2-heptanol.

The first synthesis is from hexanal:



The second synthesis is from acetaldehyde:

