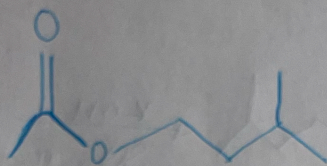
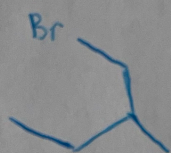


IR (cm⁻¹): 1715, 1740
 (C=O stretching)
 1H NMR (ppm): 1.1, 2.1, 2.3, 4.1, 4.6

1)

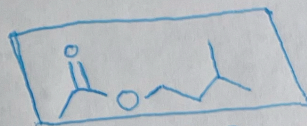


chemical formula: $C_7H_{14}O_2$



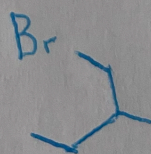
1-Bromo-2-methylbutane

Several steps

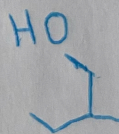


Desired Product: $C_7H_{14}O_2$
(as determined by IR and 1H NMR)

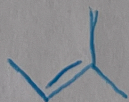
Proposed Synthesis:



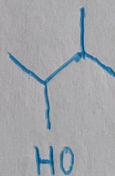
KOH
 SN_2 reaction



H_2SO_4 (catalyst)
dehydration



H_2O_2
 H_2O



Desmartin
Periodate
oxidation



Anti-Markovnikovs
Product