

(7) Solution:

The given compound is 2-Bromobutanal.

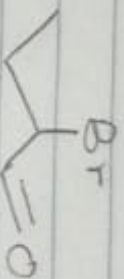
Molecular formula: C_4H_7BrO

Average mass: 151.002 Da

Chemical ID: 10413910

Monoisotopic mass: 149.968018 Da.

Structure:



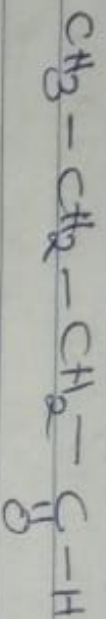
Peak	Chemical shift	Multiplicity	H^a
1	6.03	m	1
2	5.16	m	1
3	8.69	s	2
4	3.23	m	1
5	2.96	m	1
6	2.56	d	2
7	1.71	m	2

When α proton is coupled with H will give doublet(d) while αH will give triplet(t).

If a proton attached to more electronegative atom, then it will come in deshield region.

Step 4

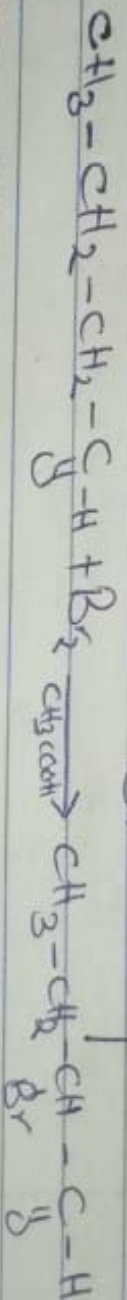
Starting Materials:



solvent: $\text{CH}_3-\overset{\text{O}}{\underset{\text{O}}{\text{C}}}-\text{OH}$ (Acetic acid)

Reagent: Br_2

Product formed: $\text{CH}_3-\text{CH}_2-\underset{\text{Br}}{\underset{\text{O}}{\text{C}}}-\text{H}$



In this reaction Acetic acid act as solvent as well as catalyst.