KPOLOGRI PRECIOUS EJOMAFUVWE

19/MHS01/231

MBBS

CHEMISTRY ASSIGNMENT

1.HCOOH-Methanoicacid

HOOCCH2CH2CH2COOH-petan-1,5-doicacid

CH3CH2CH2COOH-Butanoicacid

HO2C-CO2H-Ethandioicacid

CH3(CH2)4COOH-Hexanoicacid

CH3CH=CHCH2CH2COOH-Hex-4-eneoicacid

2.Physical appearance

All simple aliphatic carbolyxic acids up to 10 are liquids in temperature.

Boiling points

Boiling points increase in

mass.

Sol ubility

 Lowermolecularmasscarboxylicacidswithuptofour

carbonatomsinthiermoleculesaresolubleinwaterthis

largelyduetothierabilitytoformhydrogenbondswithwater

molecules.

3.Twoindustr

ialpreparationsofcarboxylicacids

.Fromcarbon(II)0xide

Fromethanol

4.Syntheticprep

arations

.Oxidationofprimaryalcoholsandaldehydes

Oxidationofprimaryalcoholsandaldehydescanbeusedto

preparecarboxylicacidsusingtheusualoxidizingagentsin

acidicsolution

RCH2OHEXCESSACID---------RCHO-------RCOOH

.Carbonationofgrignardreagent

Aliphaticcarboxylicacidsareobtainedbybubbling

carbon(IV)oxideintothegrignardreagentandthen

hydrolyzedwithdiluteacid

RMgBr+CO2(C2H3)2--------RCOOMg---------RCOOH+MgBrOH

 Hydrolysisofnitriles(cyanides)oresters

RCN+2H2O RCOOH+NH4

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