



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-07(SOLUTION)



CLASS-12

TOPIC- ALKYL AND ARYL HALIDE

SUBTOPIC-GRIGNARD REAGENT AND ITS CHEMICAL REACTIONS SUBJECT -

CHEMISTRY

DURATION - 30 mins

F.M. - 15

DATE -09.05.20

1.1 Which among the following is not an organometallic compound?

- a) CH_3ONa b) CH_3MgBr c) CH_3Li d) $(\text{CH}_3)_2\text{Zn}$

Ans. a) CH_3ONa

1.2 The co-ordination number of Magnesium is-

- a) 6 b) 2 c) 3 d) 4

Ans. d) 4

1.3 Which halogen is the best for using in the Grignard reagent?

- a) Cl b) Br c) F d) I

Ans. d) I

1.4 Grignard reagent when exposed to moisture-

- a) Gets oxidized b) gets hydrolyzed c) gets decomposed to give hydrocarbon d) remains unaffected

Ans. c) gets decomposed to give hydrocarbon

1.5 Grignard reagent forms alkane with which of the following compound?

- a) Formaldehyde b) Carbon dioxide c) Acetylene d) Acetone

Ans. c) Acetylene

1.6 Which of the following solvent is used during the reaction of Grignard reagent?

- a) Moist ether b) Water c) Dry ether d) Benzene

Ans. c) Dry ether

1.7 Grignard reagent can act as-

- a) Reductant b) Nucleophile c) Base d) Both b and c

Ans. d) Both b and c

1.8 Grignard reagent doesn't react with aliphatic ether because it doesn't have-

- a) Acidic H atoms b) electrophilic center c) Nucleophilic center d) Both a and b

Ans. d) Both a and b

1.9 Grignard reagent on treatment with D_2O forms-

- a) RD b) RH c) H_2O d) Both b and c

Ans. a) RD

1.10 Alkane can be prepared on reaction of Grignard reagent with-

- a) HCN b) NH_3 c) H_2O d) All of these

Ans. d) All of these

1.11 $^{14}\text{CH}_3\text{MgBr}$ on treatment with $^{14}\text{CO}_2$ generates-

- a) CH_3COOH b) $\text{CH}_3^{14}\text{COOH}$ c) $^{14}\text{CH}_3^{14}\text{COOH}$ d) $^{14}\text{CH}_3\text{COOH}$

Ans. c) $^{14}\text{CH}_3^{14}\text{COOH}$

1.12 Which of the following name is associated with the chemical reactions of Grignard reagent?

- a) Zerewitinoff b) Markownikoff c) Rieme-Tiemann d) wurtz

Ans. a) Zerewitinoff

1.13 The role of Ether during the reaction of Grignard reagent-

a) It satisfies the coordination number of Mg b) it reacts with the substrate c) It enhances the electrophilic character of the substrate d) None of these

Ans. a) It satisfies the coordination number of Mg

1.14 Grignard reagent is suitable for the preparation of which type of alkane?

a) Symmetrical b) unsymmetrical c) Both a and b d) None of these

Ans. c) Both a and b

1.15 $\text{CH}_3\text{CH}_2\text{Br}$ on treatment with CH_3SH forms-

a) $\text{CH}_3\text{CH}_2\text{CH}_3$ b) CH_3CH_3 c) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$ d) CH_4

Ans. b) CH_3CH_3

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