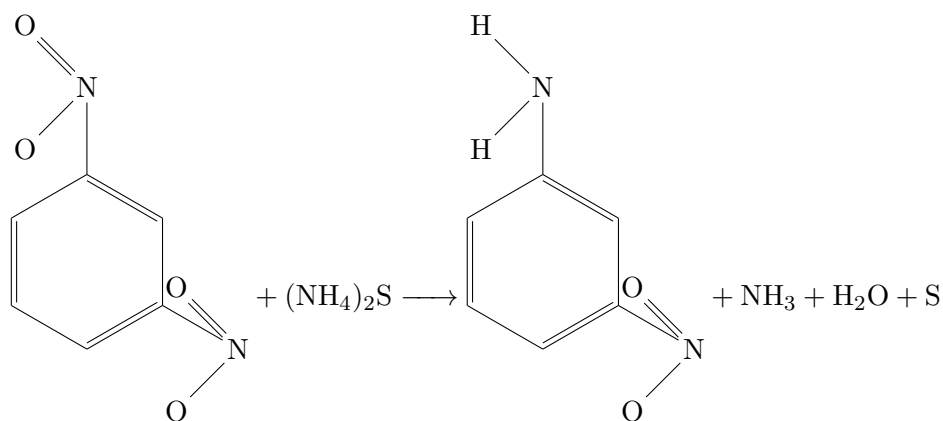

Contents

Selective Reduction	3
Expression for reaction of selective reduction of nitrobenzene	3
Reactants in reaction of selective reduction of nitrobenzene	3
Products in reaction of selective reduction of nitrobenzene	3
Reduction of nitro benzene in different medium	3
General Expression for reaction of reduction of nitrobenzene	3
List in order of reduction of nitrobenzene from lowly reduced to highly reduced	3
List of mediums for reduction of nitro benzene	3
Expression of reaction of nitrobenzene in reduction in acidic medium	4
Reactants in reaction of nitrobenzene in reduction in acidic medium	4
Condition of reaction of nitrobenzene in reduction in acidic medium	4
Products of reaction of nitrobenzene in reduction in acidic medium	4
Expression of reaction of nitrobenzene in reduction in neutral medium	5
Reactants in reaction of nitrobenzene in reduction in neutral medium	5
Condition of reaction of nitrobenzene in reduction in neutral medium	5
Products of reaction of nitrobenzene in reduction in neutral medium	5
Reactants in reaction of nitrobenzene in reduction in basic medium	5
List of conditions for reaction of nitrobenzene in basic medium	5
Expression of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and zinc	6
Expression of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide , zinc and methanol	6
Expression of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and sodium arsenate	7
Expression of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and glucose	7
Products of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and zinc only	7
Products of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide, zinc and methanol	8
Products of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and sodium arsenate	8
Products of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and glucose	8
Expression of reaction of nitrobenzene in reduction in catalytic medium	8

Reactants in reaction of nitrobenzene in reduction in catalytic medium	8
Condition of reaction of nitrobenzene in reduction in catalytic medium	8
Products of reaction of nitrobenzene in reduction in catalytic medium	9
Expression of reaction of nitrobenzene in reduction in electrolytic medium	9
Reactants in reaction of nitrobenzene in reduction in electrolytic medium	9
Condition of reaction of nitrobenzene in reduction in electrolytic medium	9
Products of reaction of nitrobenzene in reduction in electrolytic medium	9
Expression of reaction of nitrobenzene in reduction in Lithium Aluminium Hy- dride medium	9
Reactants in reaction of nitrobenzene in reduction in Lithium Aluminium Hy- dride medium	9
Condition of reaction of nitrobenzene in reduction in Lithium Aluminium Hydride medium	9
Products of reaction of nitrobenzene in reduction in Lithium Aluminium Hydride medium	10
Molecular formula of aniline	10
Molecular formula of Hydrazobenzene	10
Molecular formula of Azobenzene	11
Molecular formula for Oxyazobenzene	11
Molecular formula of Phenylhydroxyl amine	11

Selective Reduction

Expression for reaction of selective reduction of nitrobenzene



Reactants in reaction of selective reduction of nitrobenzene

- TriNitrobenzene
- Sodium sulphide or Ammonium sulphide

Products in reaction of selective reduction of nitrobenzene

- m-Dinitroaniline
- Water
- Ammonia
- Sulphide

Reduction of nitro benzene in different medium

General Expression for reaction of reduction of nitrobenzene

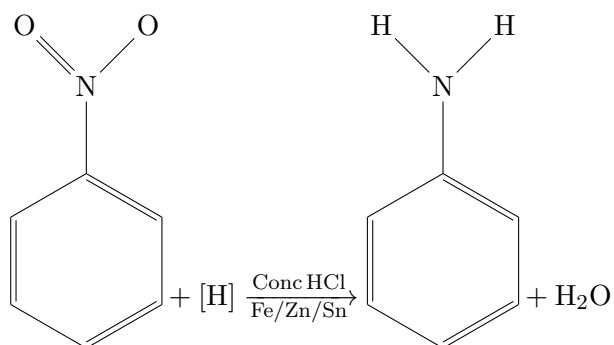
List in order of reduction of nitrobenzene from lowly reduced to highly reduced

List of mediums for reduction of nitro benzene

- Acidic
- Neutral

-
- Basic
 - Catalytic
 - LiAlH_4

Expression of reaction of nitrobenzene in reduction in acidic medium



Reactants in reaction of nitrobenzene in reduction in acidic medium

- Nitrobenzene
- Nascent hydrogen

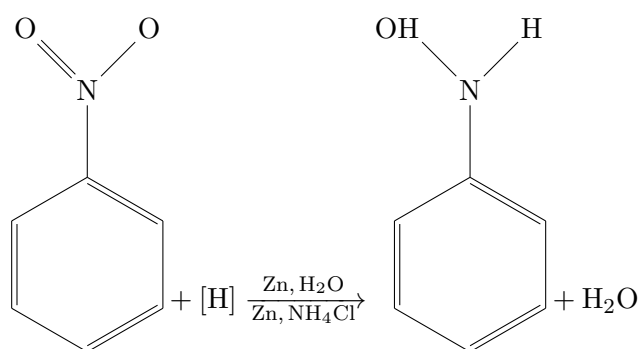
Condition of reaction of nitrobenzene in reduction in acidic medium

- Presence of conc. HCl
- Presence of Iron or Zinc or Tin

Products of reaction of nitrobenzene in reduction in acidic medium

- Aniline
- Water

Expression of reaction of nitrobenzene in reduction in neutral medium



Reactants in reaction of nitrobenzene in reduction in neutral medium

- Nitrobenzene
- Nascent hydrogen

Condition of reaction of nitrobenzene in reduction in neutral medium

- Presence of Zinc
- Presence of Water of ammonium chloride

Products of reaction of nitrobenzene in reduction in neutral medium

- Phenylhydroxyl amine

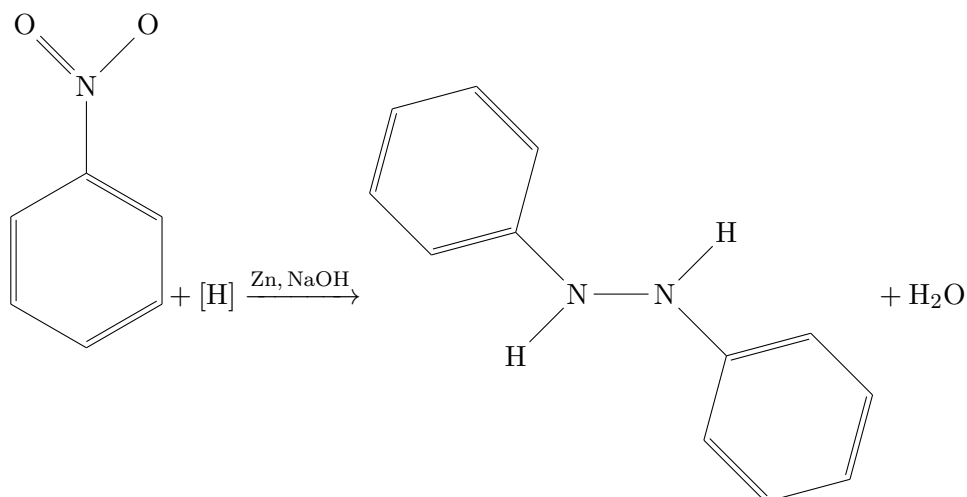
Reactants in reaction of nitrobenzene in reduction in basic medium

- Nitrobenzene
- Nascent Hydrogen

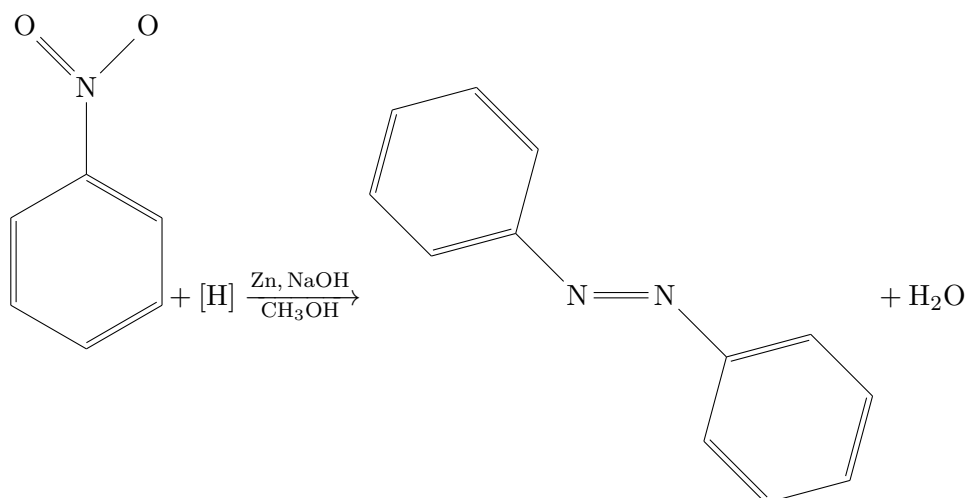
List of conditions for reaction of nitrobenzene in basic medium

- Sodium hydroxide and Zinc
- Sodium hydroxide, Zinc and Methanol
- Sodium hydroxide and Sodium Arsenate
- Sodium hydroxide and glucose

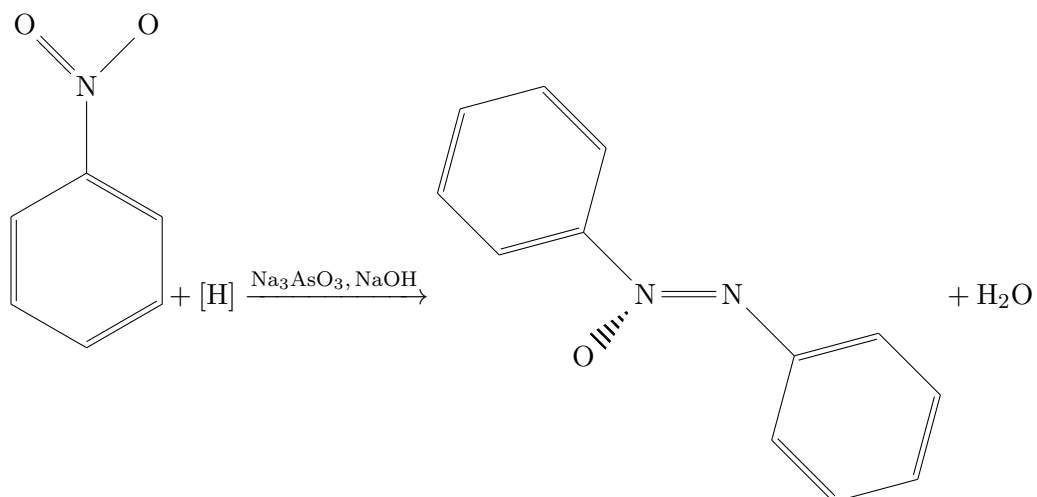
Expression of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and zinc



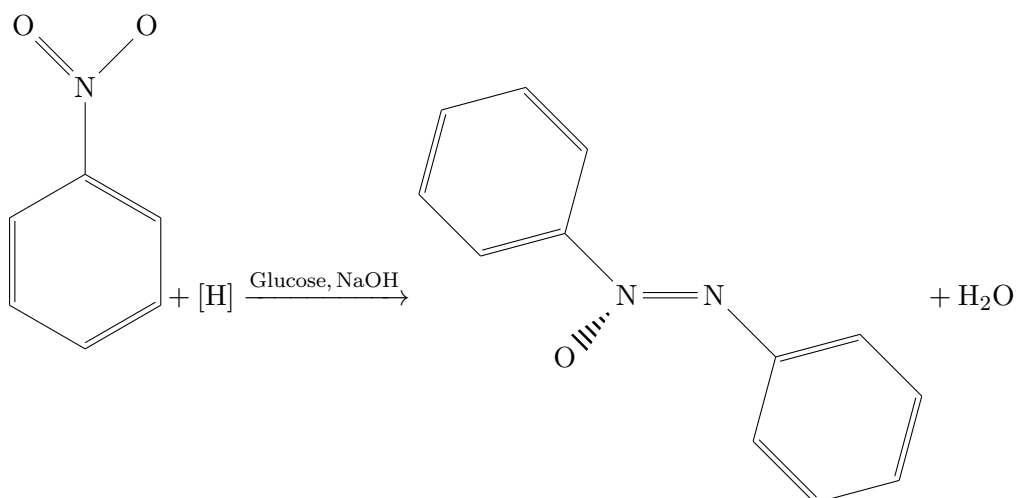
Expression of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide , zinc and methanol



Expression of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and sodium arsenate



Expression of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and glucose



Products of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and zinc only

- Hydrazobenzene
- Water

Products of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide, zinc and methanol

- Azobenzene
- Water

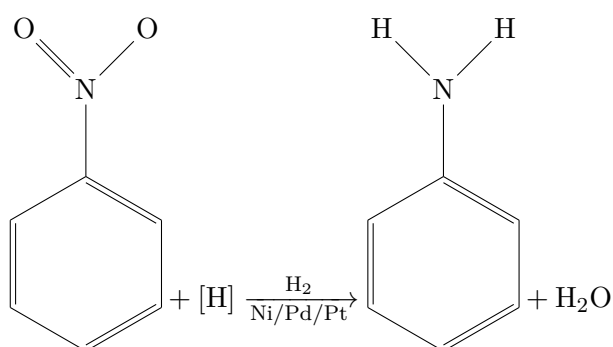
Products of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and sodium arsenate

- Oxyazobenzene
- Water

Products of reaction of nitrobenzene in reduction in basic medium with sodium hydroxide and glucose

- Oxyazobenzene
- Water

Expression of reaction of nitrobenzene in reduction in catalytic medium



Reactants in reaction of nitrobenzene in reduction in catalytic medium

- Nitrobenzene
- Nascent hydrogen

Condition of reaction of nitrobenzene in reduction in catalytic medium

- Presence of hydrogen

-
- Presence of nickel or platinum or palladium

Products of reaction of nitrobenzene in reduction in catalytic medium

- Aniline
- Water

Expression of reaction of nitrobenzene in reduction in electrolytic medium

Reactants in reaction of nitrobenzene in reduction in electrolytic medium

- Nitrobenzene
- Nascent hydrogen

Condition of reaction of nitrobenzene in reduction in electrolytic medium

- Presence of hydrogen ions (acidic medium)
- Electrolysis

Products of reaction of nitrobenzene in reduction in electrolytic medium

- Phenylhydroxyl amine

Expression of reaction of nitrobenzene in reduction in Lithium Aluminium Hydride medium

Reactants in reaction of nitrobenzene in reduction in Lithium Aluminium Hydride medium

- Nitrobenzene
- Nascent hydrogen

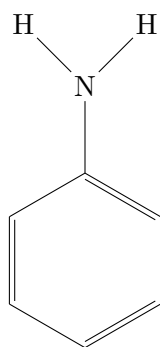
Condition of reaction of nitrobenzene in reduction in Lithium Aluminium Hydride medium

- Presence of lithium aluminium hydride
- Presence of Ether

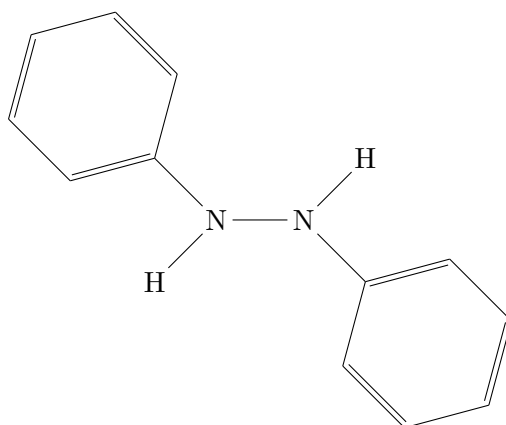
Products of reaction of nitrobenzene in reduction in Lithium Aluminium Hydride medium

- Azobenzene

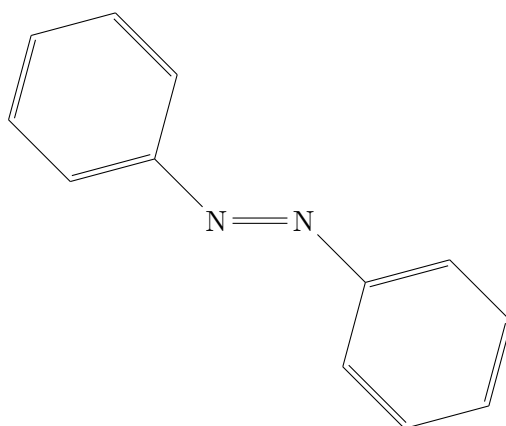
Molecular formula of aniline



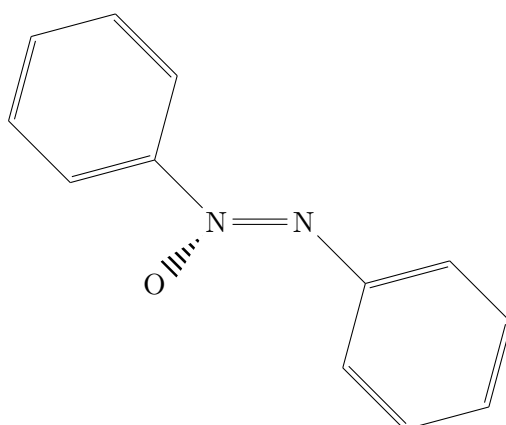
Molecular formula of Hydrazobenzene



Molecular formula of Azobenzene



Molecular formula for Oxyazobenzene



Molecular formula of Phenylhydroxyl amine

