

Chemguide – questions

PHENYLAMINE: PREPARATION

1. The preparation of phenylamine from benzene is done in two stages:
 1. benzene to nitrobenzene
 2. nitrobenzene to phenylamine
- a) State the reagents and the important condition for the first stage of the preparation.
- b) Explain the need for the condition that you have quoted.
- c) Write the equation for the reaction.
- d) The second stage from nitrobenzene to phenylamine is itself a two step process. Give the reagents and conditions for each of those steps.
- e) Explain the need for the second of these two steps.
- f) Write the electron-half-equation for the reduction taking place in the first of these steps.
- g) Write a simple ionic equation for the second of these steps.