INTRODUCTION

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The petrochemicals industry is the source of almost all the chemical production as well as the largest producer by volume. Among these chemicals chloroaromatic compounds represent a corner stone. They are included in plastic, pesticides, herbicides, electronics, textiles, cosmetics, medical/pharmaceuticals, metals, explosives, energy, agrochemicals, pulp and paper industries, household uses and wood preservation. Chloroaromatic compounds are widely distributed in the environment and they have a great impact and health hazards on the environment influencing the human beings, aquatic and terrestrial organisms.

Aim of the work:

So this thesis aimed to cleaning up the environment by efficient, safe and secure manner via

1- Survey for the indigenous bacterial communities that have the ability of growing on different chloroaromatic compounds as a sole carbon and energy source.

2- Determination of the best grown communities on different chloroaromatic compounds.

3- Selection of the most degrading bacteria have the ability to degrade chloroaromatic compounds.

4- Characterization of the isolated degrading bacteria.

5- Induction of mutants have a superior ability to degrade chloroaromatic compounds.

6- Evaluation of the most chloroaromatic degraders by analytical method.