

KHAIRA COLLEGE , KHAIRA, BALASORE

DEPARTMENT OF CHEMISTRY

YEAR	NAME OF THE SEMINAR TOPIC	NO. OF PARTICIPANTS	DATE
2021-22	CFCs and The Environment	61	16.12.2022

Departmental Seminar topic '**CFCs and The Environment**' held on 16.12.21 , 12 PM at CFH under the Presidentship of Principal, Chief Speaker SubhransuSekharParhi , Reader in Chemistry, Nilagiri College , Nilagiri , BIs and Staff members , Honours students .

(1) Chlorofluorocarbons (or CFCs) are otherwise known as Ferons made of methane and ethane. A list of common CFCs is given below.

Compound Trade name IUPAC name

- i) $CFCl_3$ Feron O11 Trichlorofluoromethane
- ii) CF_2Cl_2 Feron O12 Dichlorodifluoromethane
- iii) CF_3Cl Feron O13 Chlorotrifluoromethane
- iv) CF_4 Feron O14 Tetrafluoromethane

(2) These are used as refrigerants in refrigerators, air conditioning machines. Also used as propellants in aerosols, foams in hair sprays, deodorants, cleansers.

(3) When used as refrigerants and as propellant in aerosol, they slowly escape to the upper atmosphere where they absorb UV radiations and decompose. On decomposition, the free radicals formed deplete the ozone layer. It results in the formation of ozone hole. Due to ozone hole, UV rays strike the earth. They damage crops, affect climate adversely and may cause skin cancer in humans.

(4) The international community agreed the **Montreal Protocol in 1987** which outlawed CFCs for almost all uses. This protocol is an important multilateral agreement regulating the production, consumption and emission of ozone depleting substances.

Air conditioning machines that do not use CFCs as refrigerants are developed which are to be promoted.