

ISOLASI SENYAWA ORGANIK DARI MAKHLUK HIDUP

1742 – 1786 : Scheele : Asam tartrat

Asam sitrat

Asam malat

dari anggur,
jeruk & apel

Asam laktat : dari susu

Gliserol : dari lemak
(hewan)

Vital
Force
theory

1773 : Roulle : Urea dari urin manusia

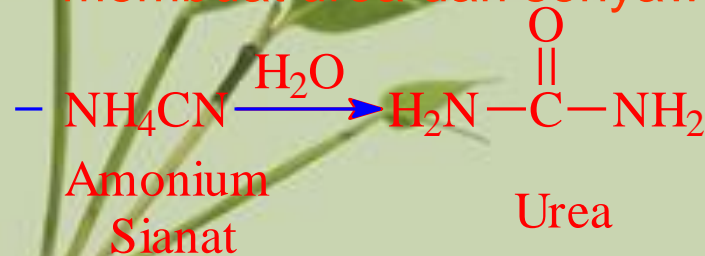
1805 : Serturuer : Morfin dari opium

Berzelius mengemukakan istilah senyawa organik (1807)
bahan dari organisme
hidup (tumbuhan &
hewan)



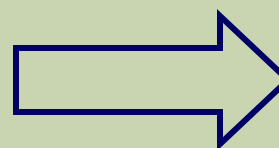
KIMIA ORGANIK

1828 : Wohler – membuat urea dari senyawa anorganik



— menumbangkan vital force theory

Semua senyawa organik
mengandung atom C
sebagai unsur utama



Senyawa karbon

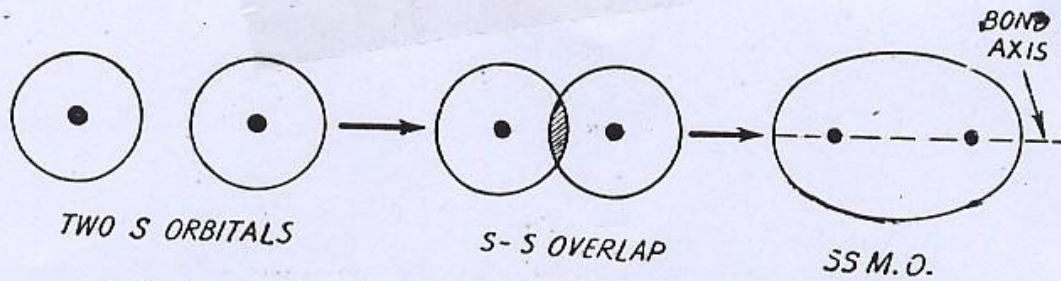
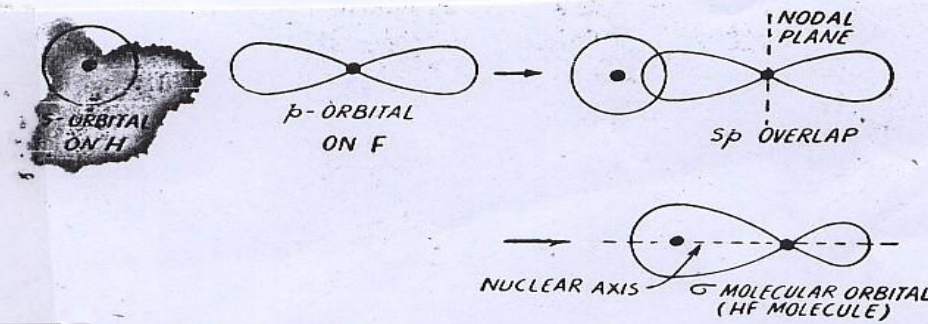


Fig. 5.8. Formation of s - s Molecular Orbital of Hydrogen molecule.



Pictorial representation of s - p overlap resulting in the formation of HF molecule.

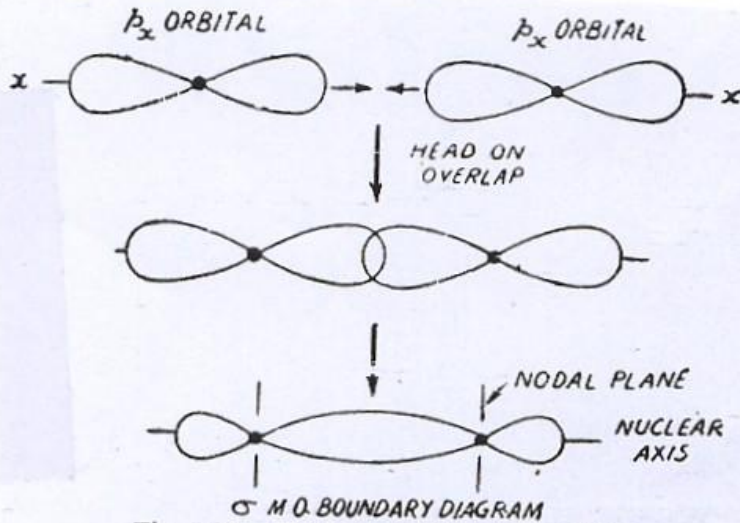
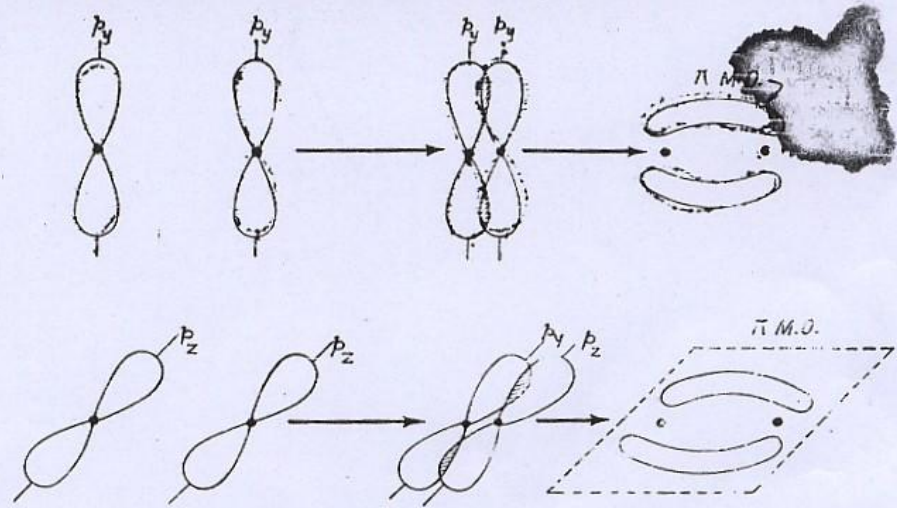
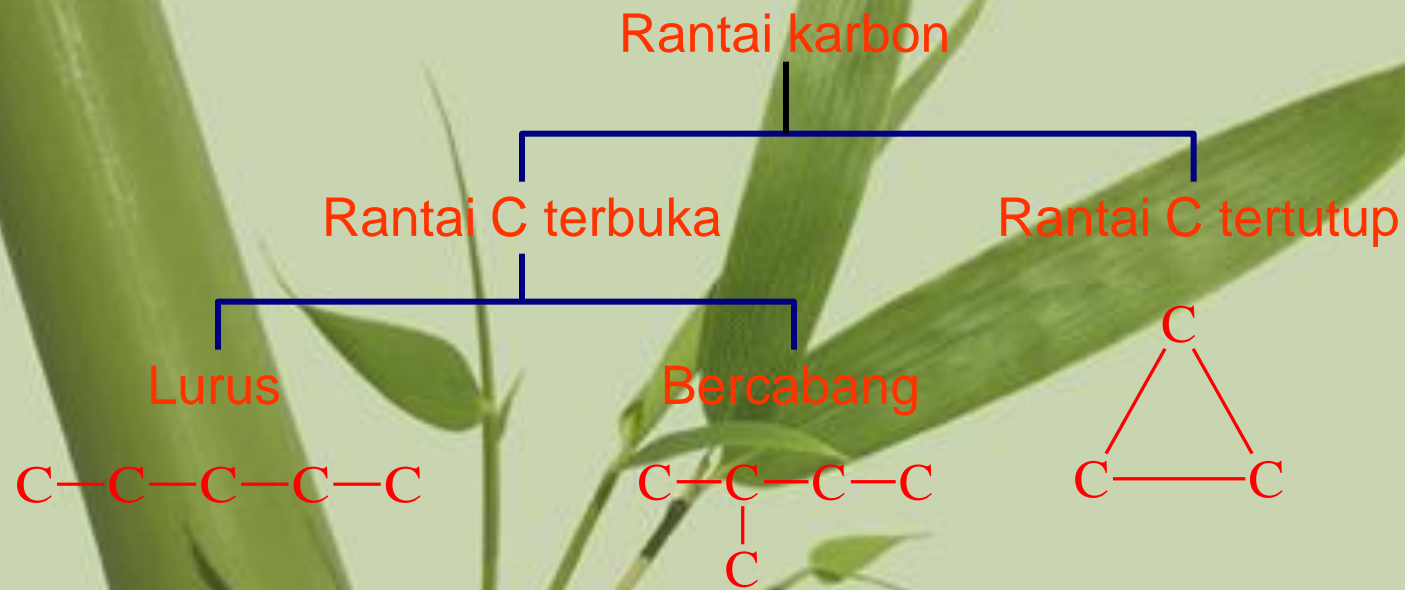


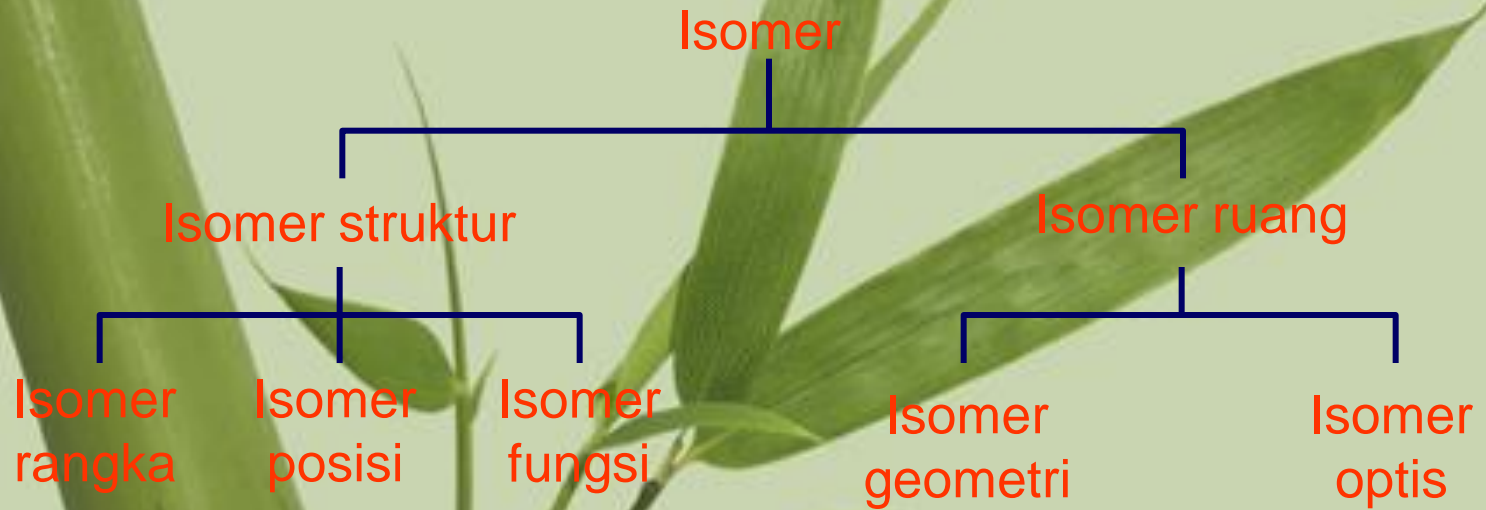
Fig. 5.13. Head-on overlap of p orbitals.



p orbitals belonging to two atoms approach such that their orbital axes are parallel.



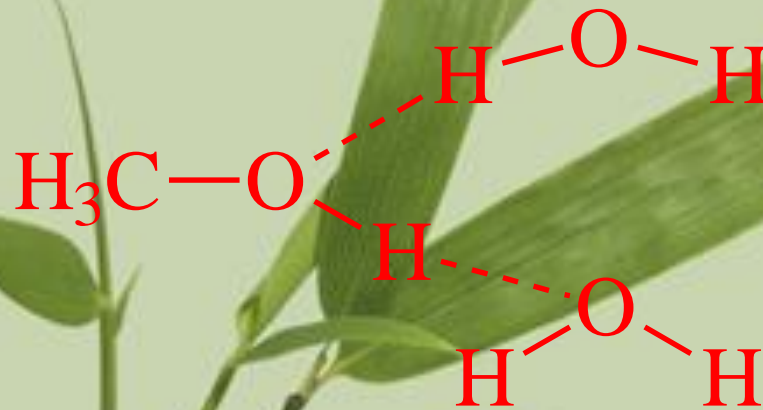
Klasifikasi Rantai Karbon



Klasifikasi Isomer

Nama Golongan	Struktur/Rumus Umum
Alkana	$C-C$ C_nH_{2n+2}
Alkena	$C=C$ C_nH_{2n}
Alkuna	$C\equiv C$ C_nH_{2n-2}
Aromatis	Cincin Benzen
Halo alkana	$R-X$
Alkohol	$R-OH$
Eter	$R-OR'$
Aldehida	$R-C \begin{matrix} \nearrow O \\ \searrow H \end{matrix}$
Keton	$R-C \begin{matrix} \uparrow O \\ \downarrow R' \end{matrix}$
Asam karboksilat	$R-C \begin{matrix} \nearrow O \\ \searrow OH \end{matrix}$
Ester	$R-C \begin{matrix} \nearrow O \\ \searrow OR' \end{matrix}$
Amina	$RNH_2, RNHR', RNR'R''$
Amida	$R-C \begin{matrix} \nearrow O \\ \searrow NH_2 \end{matrix}$

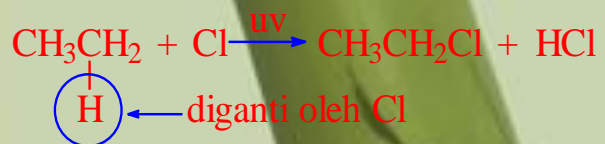
Tabel Gugus Fungsi



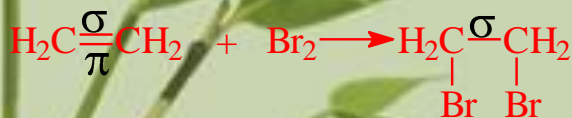
Gambar Ikatan Hidrogen

Reaksi Senyawa Karbon

Reaksi Substitusi



Reaksi Adisi



Reaksi Eliminasi

