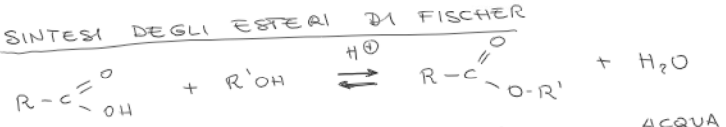
IRENE. CALLIARI @ UNIPD. IT

ALCOLI

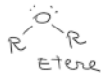
SINTESI DEGLI ESTERI DI FISCHER



ACIDO CARBOSSILICO — ALCOL — ESTERE — ACQUA

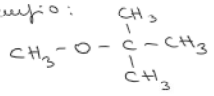
60%

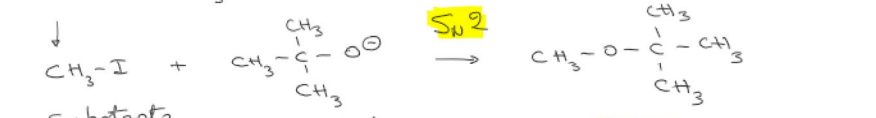
SINTESI DEGLI ETERI DI WILLIAMSON



Etere

Esempio:



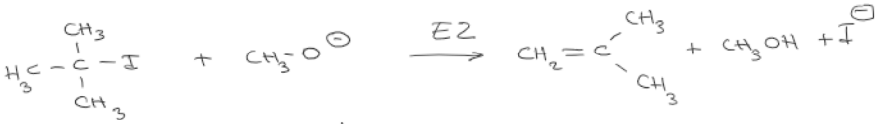


Substrato Metilico — S_N2

Base forte N_u debole

S_N2

Etere

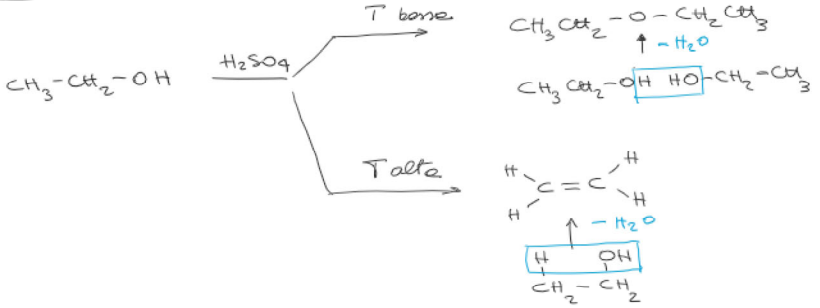


Substrato Terziario — Base forte Buon N_u

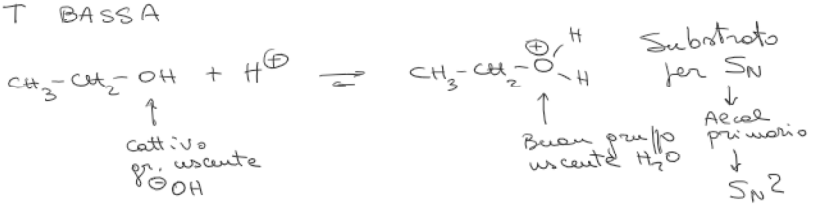
$S_N1/E1$

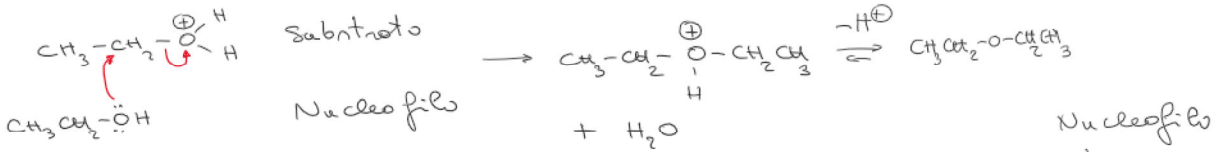
E2

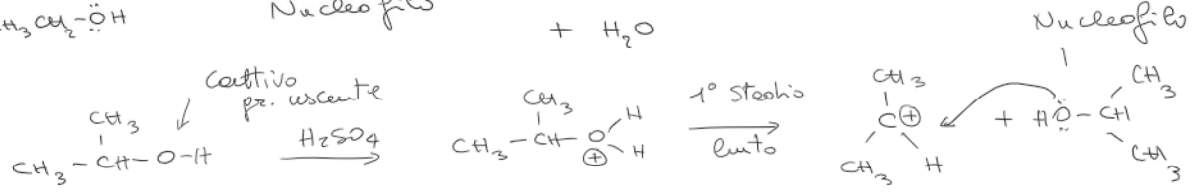
DISIDRATAZIONE (perdita di H_2O)



T BASSA



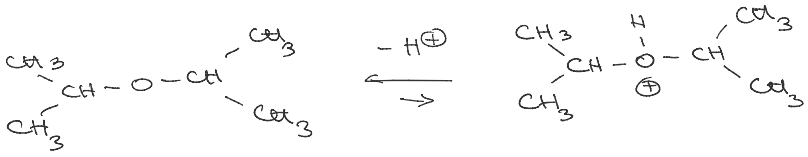




Substrato Secondario

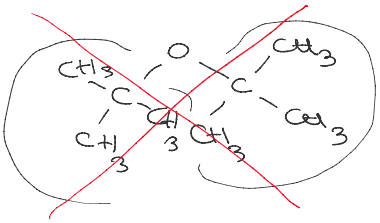
S_N1

S_N1



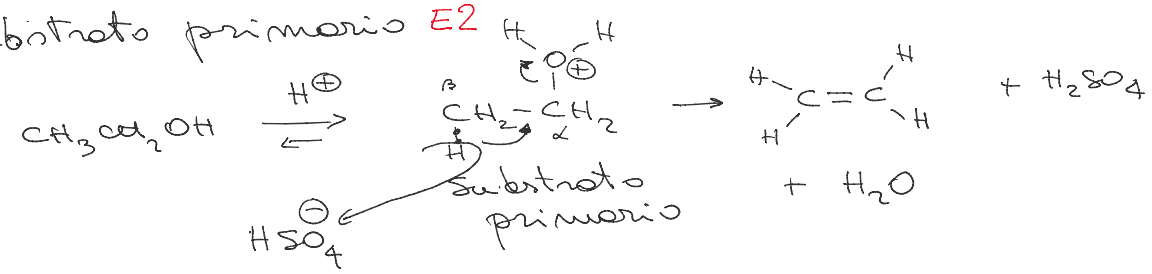
T BASSA Alcoli primari $\xrightarrow{S_N2}$ Etere
Alcoli secondari $\xrightarrow{S_N1}$ Etere

Gli Alcoli terziari non forniscono l'etere per S_N1 perché l'etere è troppo ingombrato stericamente

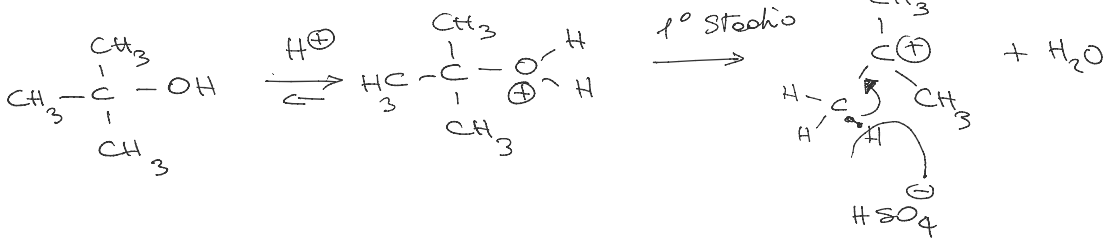


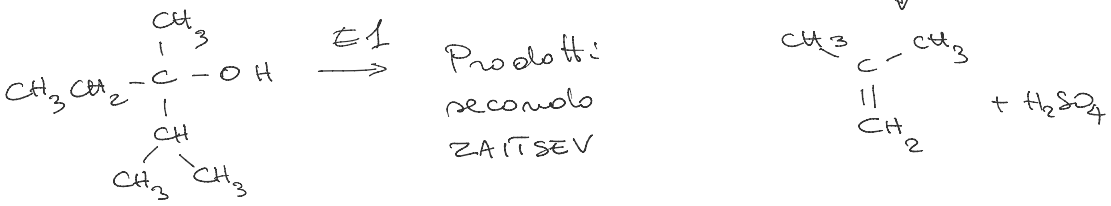
T ALTA Prevale l'eliminazione

Substrato primario E2



Substrati secondari o Terziari E1



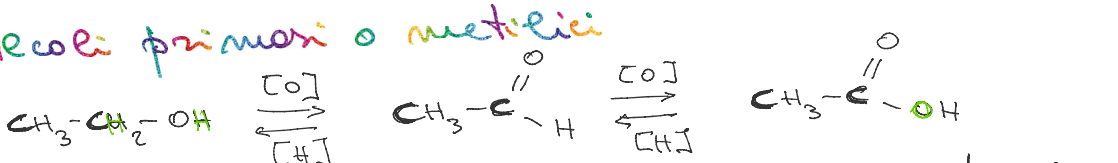


T ALTA
Substrato primario $\xrightarrow{E2}$ Alcheni
Substrato secondario $\xrightarrow{E1}$ Alcheni
o terziario

OSSIDAZIONE

Alcoli primari o metilici

Alcoli primari o metilici



Alcol

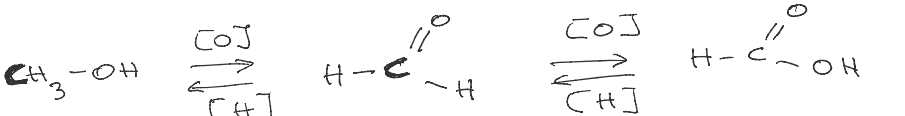
ETANOLO

Aldeide

ALDEIDE ACETICA

Acido carbossilico

ACIDO ACETICO

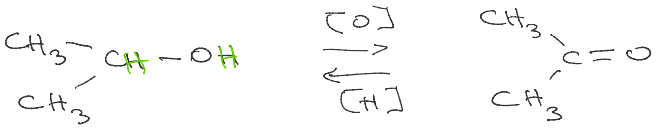


METANOLO

ALDEIDE FORMICA

ACIDO FORMICO

Alcoli secondari



Alcol secondario

Alcol isopropilico

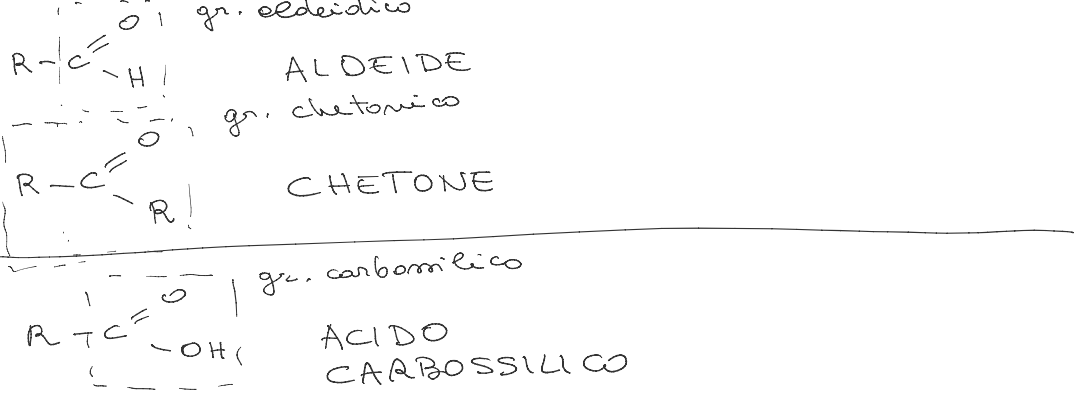
Chetone

Acetone

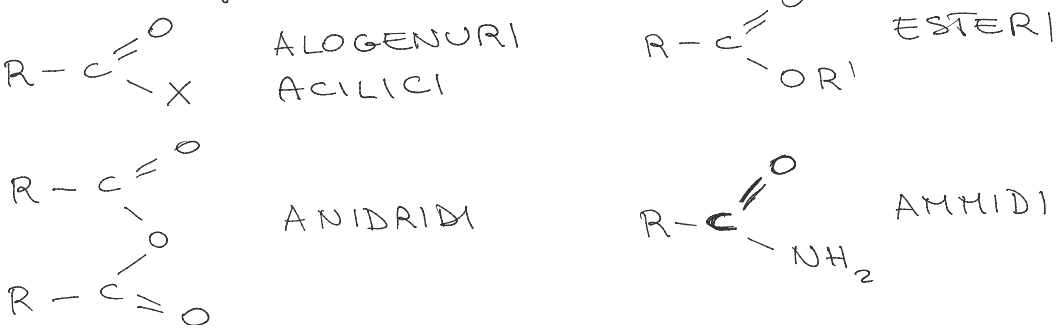
Ossidanti: $KMnO_4$, HNO_3, CrO_3, H_2CrO_4, $Na_2Cr_2O_7$

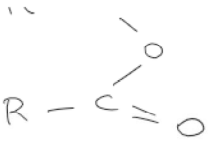
COMPOSTI CARBONILICI

Possiedono il gruppo carbonilico



Derivati degli acidi carbossilici:





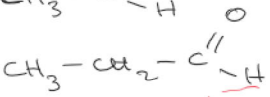
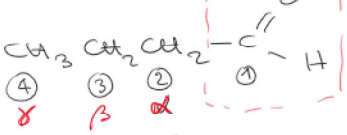
ANIDRIDI

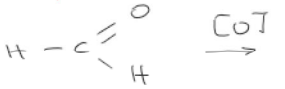
AMMIDI

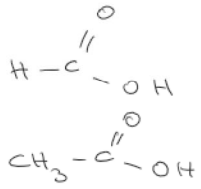
ALDEIDI e CHETONI

ALDEIDI

Nomenclature

	IUPAC (DESINENZA : ALE)	COMUNE
	MetanALE	Aldeide FORMICA
	EtanALE	Aldeide ACETICA
	PropanALE	Aldeide PROPIONICA
	ButanALE	Aldeide BUTIRRICA



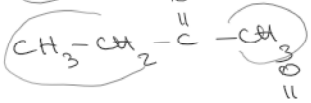
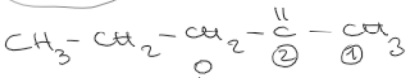
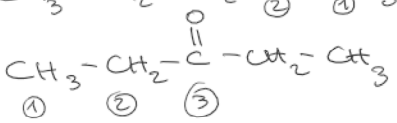


Acido FORMICO

Acido ACETICO

CHETONI

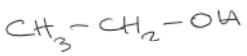
Nomenclature

	IUPAC (DESINENZA : ONE)	COMUNE
	PropanONE	DIMETIL CHETONE
	ButanONE	ETIL METIL CHETONE
	2-PentanONE	METIL PROPIL CHETONE
	3-PentanONE	DIETIL CHETONE

Proprietà fisiche

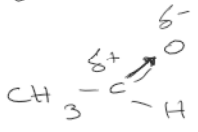
 gas molto solubile in H_2O

Aldeidi e chetoni hanno PE maggiori rispetto agli alcani di pari PM



1°

PE maggiore leg a H



2°

dipolo-dipolo

3°

Forze di London