

**DESCRITTORI DI
STEREOCHIMICA
ASSOLUTA E RELATIVA**

DESCRITTORI STEREOCHIMICI

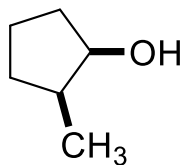
STEREOCHIMICA ASSOLUTA

- **SCONTATI:**
 - *R, S*
 - (+) , (-)
- **ANTIQUATI:**
 - *d, l* dextrorotatory / laevorotatory (sostituiti da (+) e (-))
 - *D, L* per carboidrati e aminoacidi

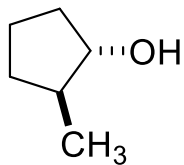
DESCRITTORI STEREOCHIMICI

Molecole con due centri chirali adiacenti: descrittori di **stereochemica relativa**

Configurazione relativa



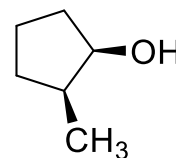
cis



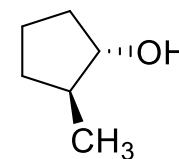
trans

Molecole cicliche

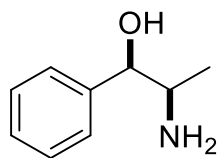
Configurazione assoluta



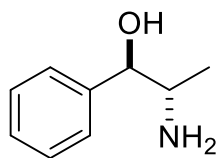
$1R,2S$



$1S,2S$

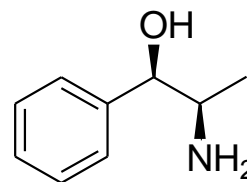


lk (like)

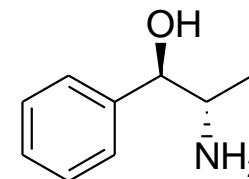


ul (unlike)

Molecole lineari



$1R,2R$



$1R,2S$

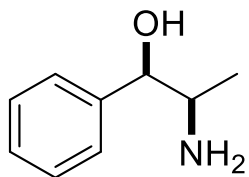
lk: $1R,2R$ (o $1S,2S$; o entrambi)

ul: $1R,2S$ (o $1S,2R$; o entrambi)

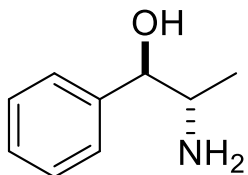
DESCRITTORI STEREOCHIMICI

Molecole con due centri chirali adiacenti: descrittori di **stereochemica relativa**

Configurazione relativa



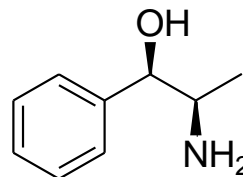
syn



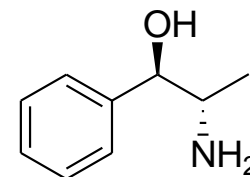
anti

Molecole lineari

Configurazione assoluta

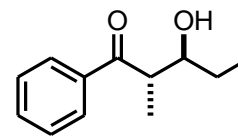
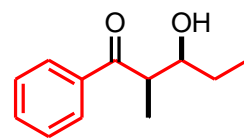
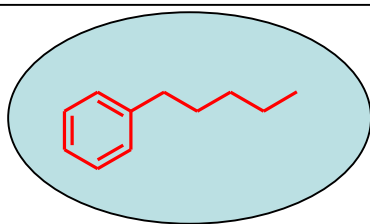


1R,2R



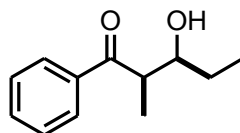
1R,2S

I descrittori syn e anti indicano la posizione relativa dei due gruppi **quando la catena è distesa**:

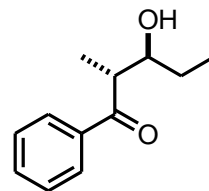


anti

syn
riscrivo



syn

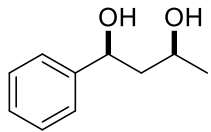
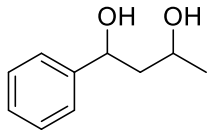


syn

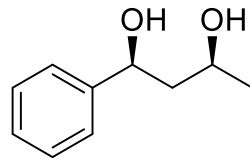
SCRITTURA

- DUE CENTRI CHIRALI

CIO' CHE SCRIVIAMO



syn

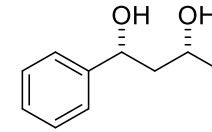
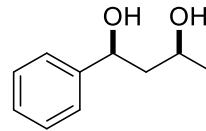
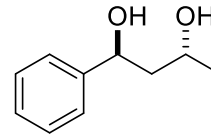
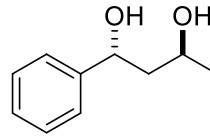
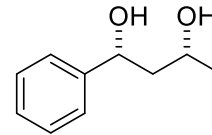
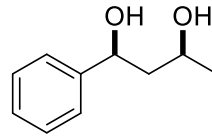


(+)-syn

op-syn

S,S-syn

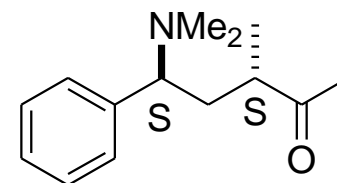
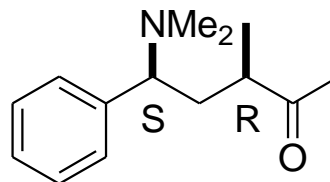
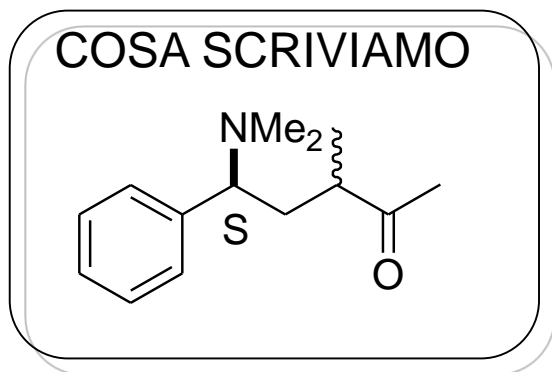
CIO' CHE SIGNIFICA



(±)

SCRITTURA

- DUE CENTRI CHIRALI, WIGGLY LINES



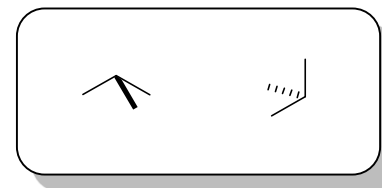
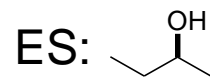
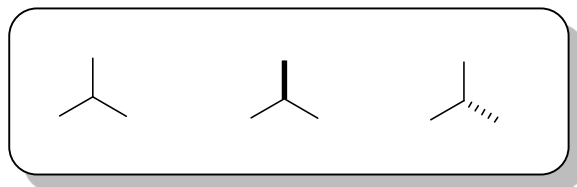
COSA SIGNIFICA

- Sono presenti tutti due i distereoisomeri
- C'è un solo distereoisomero ma non sappiamo quale
- Non ha importanza (ad es. al fine della reazione che segue)

SCRITTURA

1. DISEGNARE CORRETTAMENTE I TETRAEDRI!

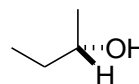
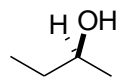
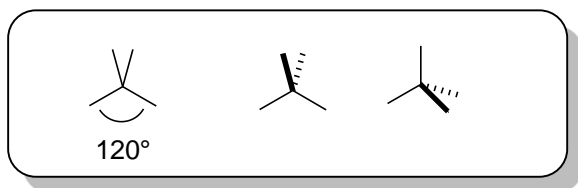
1. Tre legami



120°, DUE LEGAMI NEL PIANO

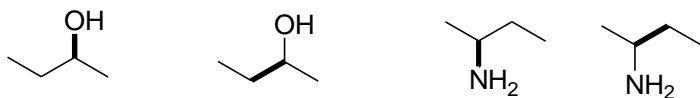
NO

2. Quattro legami

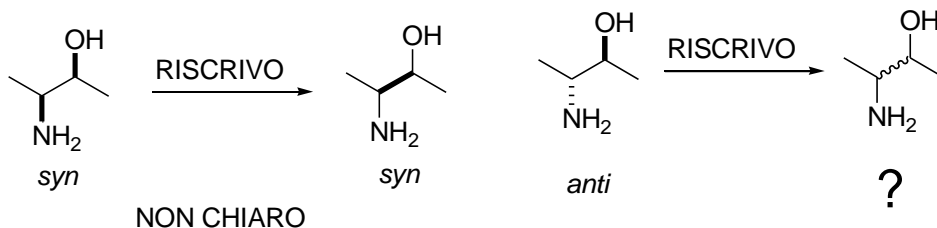


DA EVITARE:

1. LEGAME STEREOCHIMICO FRA DUE CENTRI CHIRALI



TUTTE CORRETTE MA:



DUE STEREOCENTRI ADIACENTI

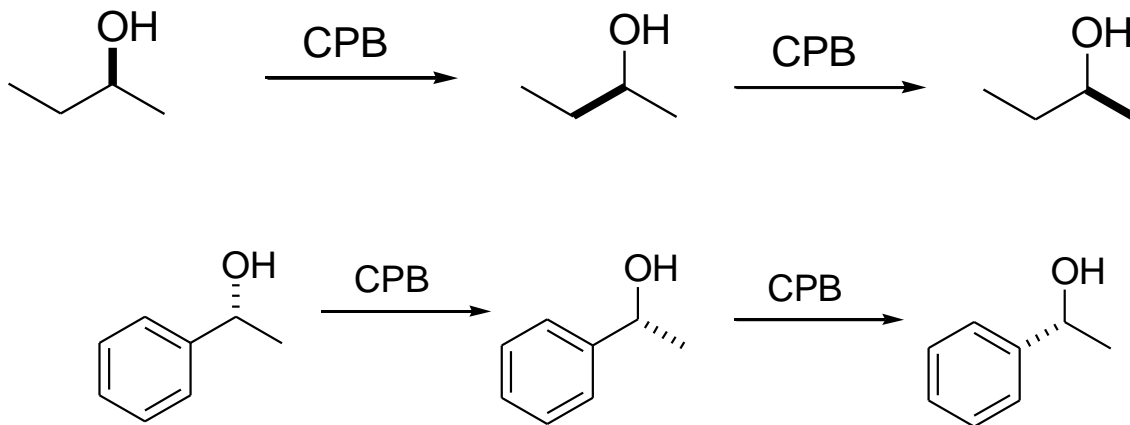
1. SCRIVERE LA CATENA PRINCIPALE SUL PIANO, COSI' I LEGAMI STEREOCHIMICI NON COMPARIRANNO SULLA CATENA PRINCIPALE

2. NON METTERE I LEGAMI STEREOCHIMICI FRA DUE CENTRI CHIRALI ADIACENTI

MANIPOLAZIONE DEI TETRAEDRI

SPESSO E' NECESSARIO RISCRIVERE I TETRAEDRI IN DIVERSI MODI:

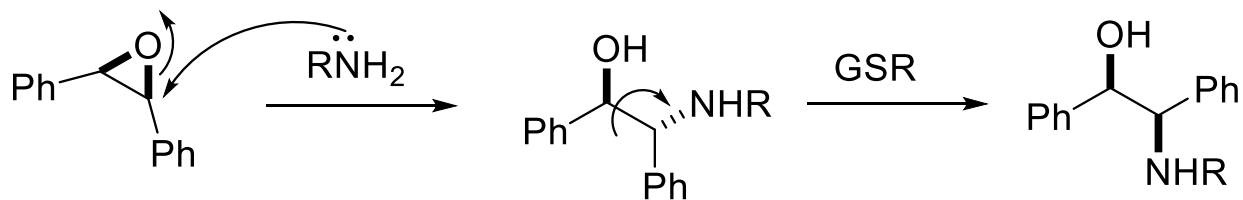
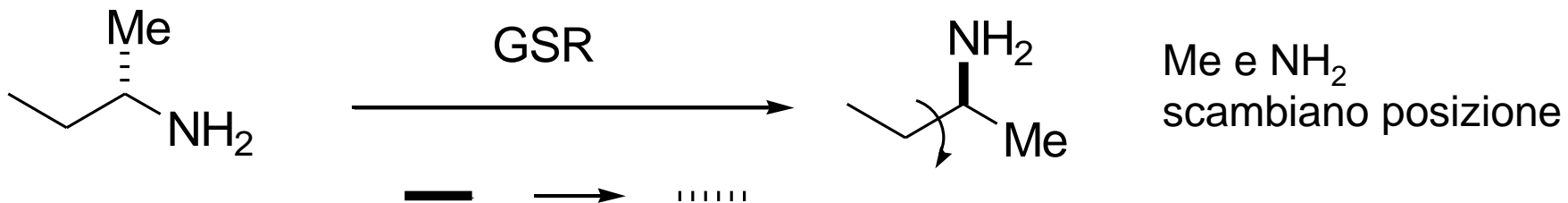
CPB: CHANGE BONDS IN THE PLANE



SE UNO DEI LEGAMI ENTRA O ESCE DAL PIANO NELLA SCRITTURA INIZIALE, ALLORA UNO DEI LEGAMI DELLA RISCrittURA DEVE ENTRARE O USCIRE DAL PIANO, MA **NON SCAMBIARE GRUPPI!**

MANIPOLAZIONE DEI TETRAEDRI

GSR: GROUP SWAP BY ROTATION



SN2 con inversione di configurazione