DESCRITTORI STEREOCHIMICI

DESCRITTORI STEREOCHIMICI

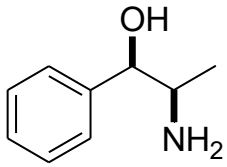
- SCONTATI:
- *R*, *S*
- (+) , (-)

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

DESCRITTORI STEREOCHIMICI

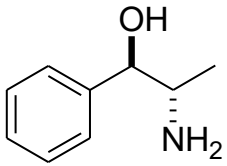
lk,ul

Stereochimica relativa di molecole con due centri chirali adiacenti



lk

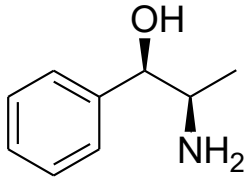
R,R o S,S



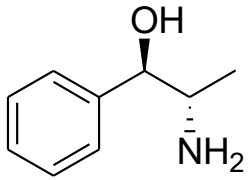
ul

R,S o S,R

Stereochimica assoluta:



R,R

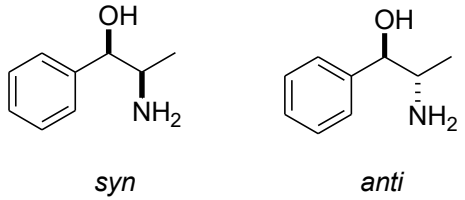


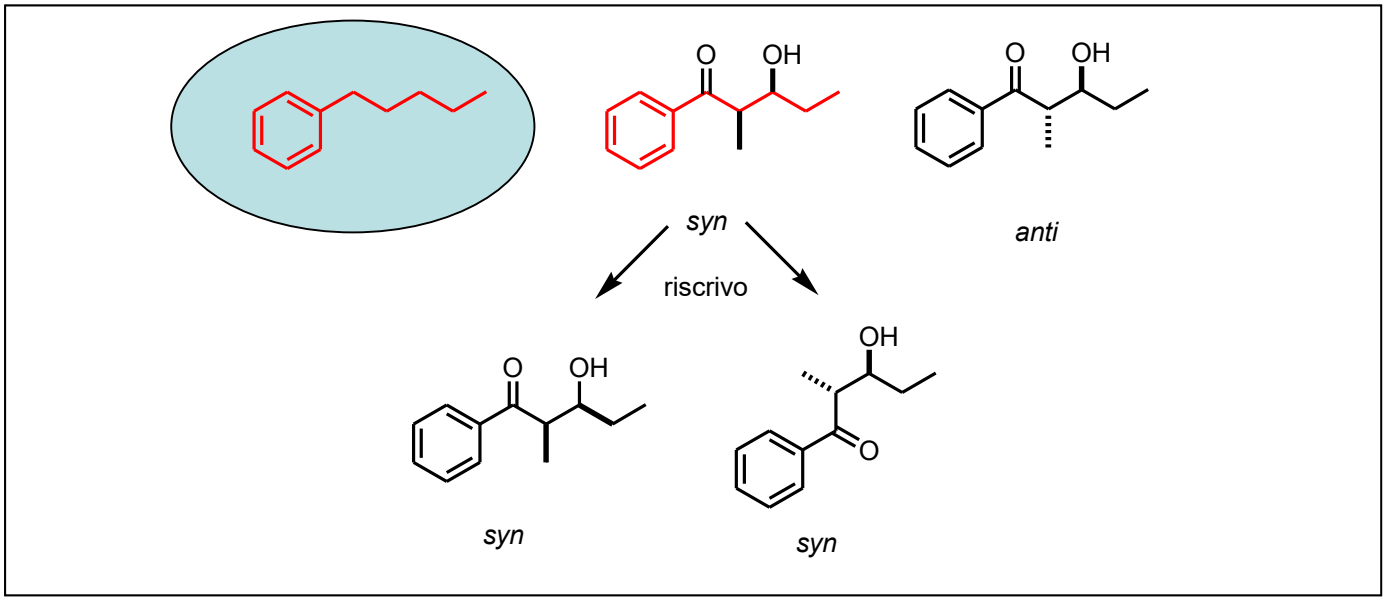
R,S

DESCRITTORI STEREOCHIMICI

syn, anti

Stereochimica relativa di molecole con due centri chirali adiacenti

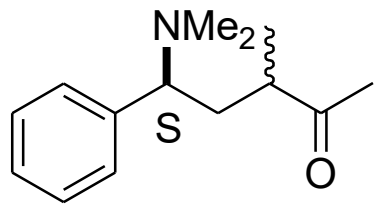


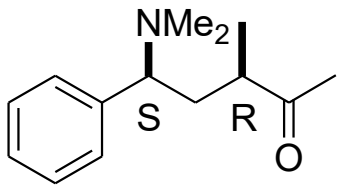


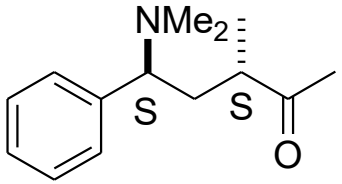
SCRITTURA

- DUE CENTRI CHIRALI, WIGGLY LINES

COSA SCRIVIAMO







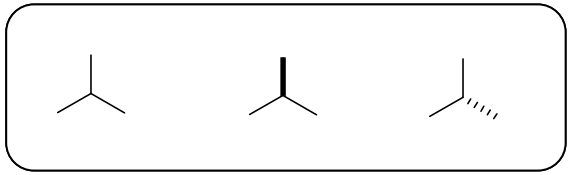
COSA SIGNIFICA

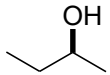
- Sono presenti tutti due i distereoisomeri
- C'è un solo distereoisomero ma non sappiamo quale
- Non ha importanza (ad es. al fine della reazione che segue)

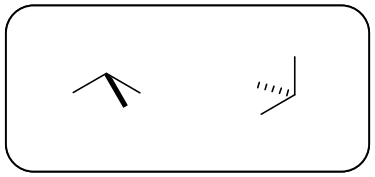
SCRITTURA

1. DISEGNARE CORRETTAMENTE I TETRAEDRI!

1. Tre legami



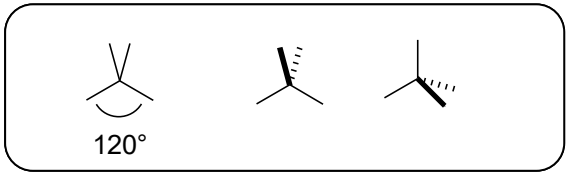
ES: 

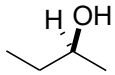


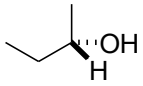
120°, DUE LEGAMI NEL PIANO

NO

2. Quattro legami

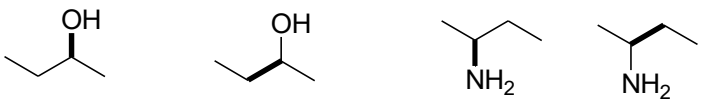




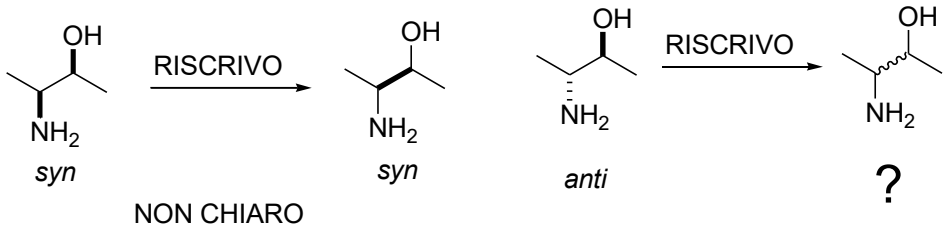


DA EVITARE:

1. LEGAME STEREOCHIMICO FRA DUE CENTRI CHIRALI



TUTTE CORRETTE MA:



DUE STEREOCENTRI ADIACENTI

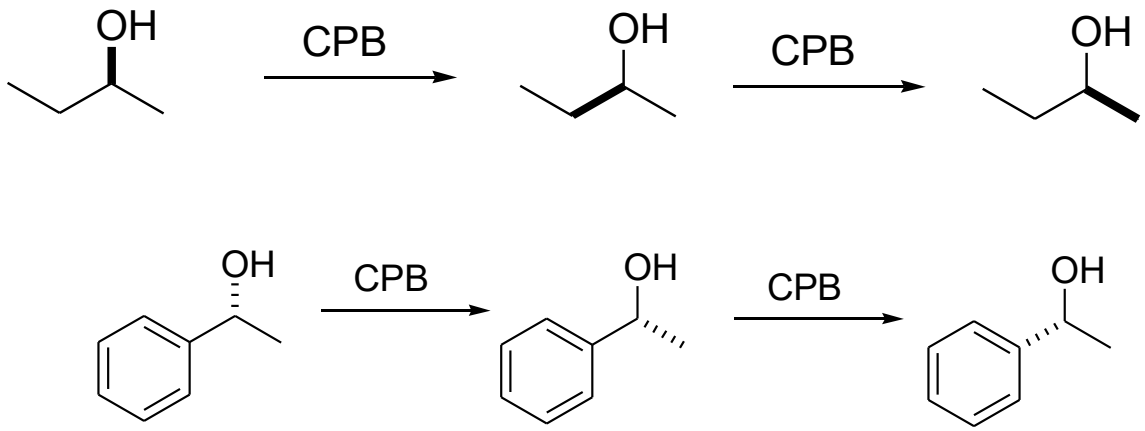
1. SCRIVERE LA CATENA PRINCIPALE SUL PIANO, COSI' I LEGAMI STEREOCHIMICI NON COMPARIRANNO SULLA CATENA PRINCIPALE

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

MANIPOLAZIONE DEI TETRAEDRI

SPESSO E' NECESSARIO RISCRIVERE I TETRAEDRI IN DIVERSI MODI:

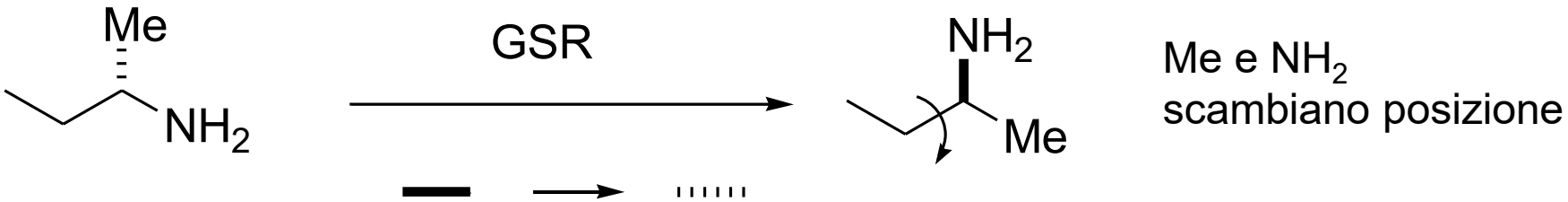
CPB: CHANGE BONDS IN THE PLANE

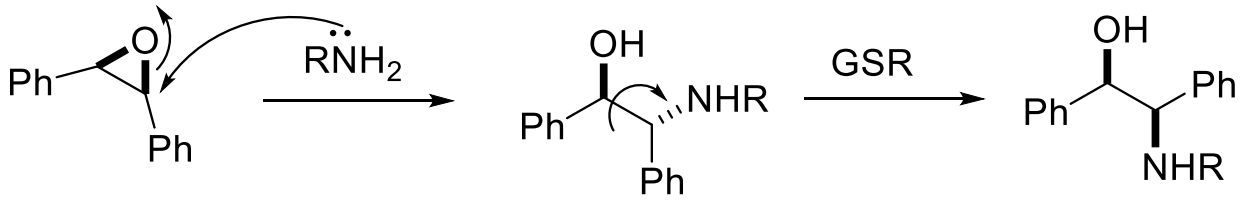


SE UNO DEI LEGAMI ENTRA O ESCE DAL PIANO NELLA SCRITTURA INIZIALE, ALLORA UNO DEI LEGAMI DELLA RISCRITTURA DEVE ENTRARE O USCIRE DAL PIANO, MA NON SCAMBIARE GRUPPI!

MANIPOLAZIONE DEI TETRAEDRI

GSR: GROUP SWAP BY ROTATION



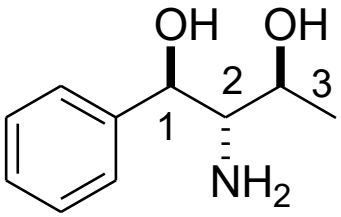


SN2 con inversione di configurazione

DESCRITTORI STEREOCHIMICI

R,S**

Stereochimica relativa di composti racemi.



Scriviamo:

50:50 (1R,2S,3S)-2-amino-1,3-diidrossibutilbenzene e (1S,2R,3R)-2-amino-1,3-diidrossibutilbenzene

Oppure

(1RS,2SR,3SR)-2-amino-1,3-diidrossibutilbenzene

Meglio:

(1*R**,2*S**,3*S**)-2-amino-1,3-diidrossibutilbenzene