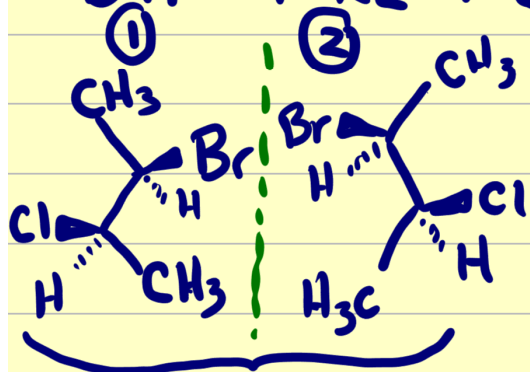
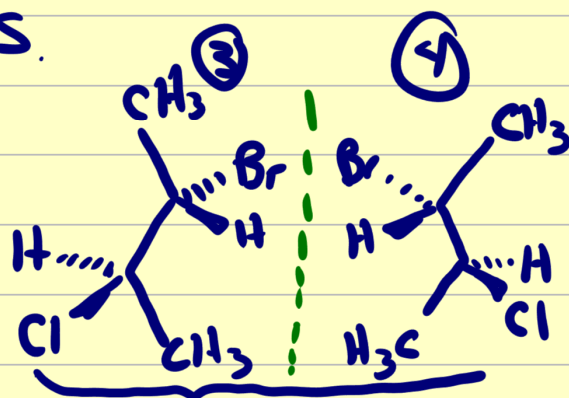


DIASTEREOMERS.



ENANTIOMERS

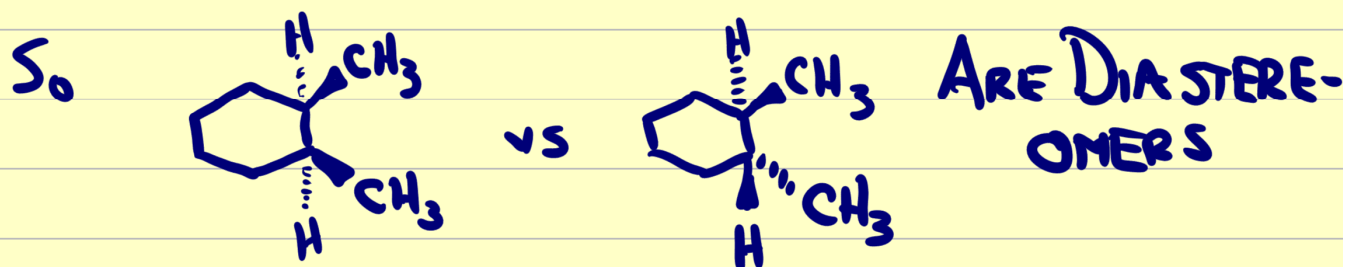


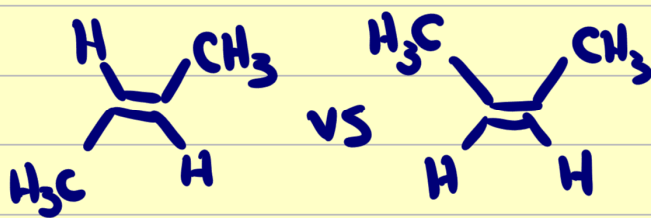
ENANTIOMERS

1 & 3 OR 2 & 3 OR 2 & 4 OR 1 & 4.
DIASTEREOMERS

- OCCURS WHEN YOU HAVE ≥ 2 CHIRAL CENTRES - AND SOME CENTRES HAVE THE SAME CHIRALITY, OTHERS ARE OPPOSITE.

OFFICIAL DEFINITION - STEREOISOMER THAT ARE NOT ENANTIOMERS

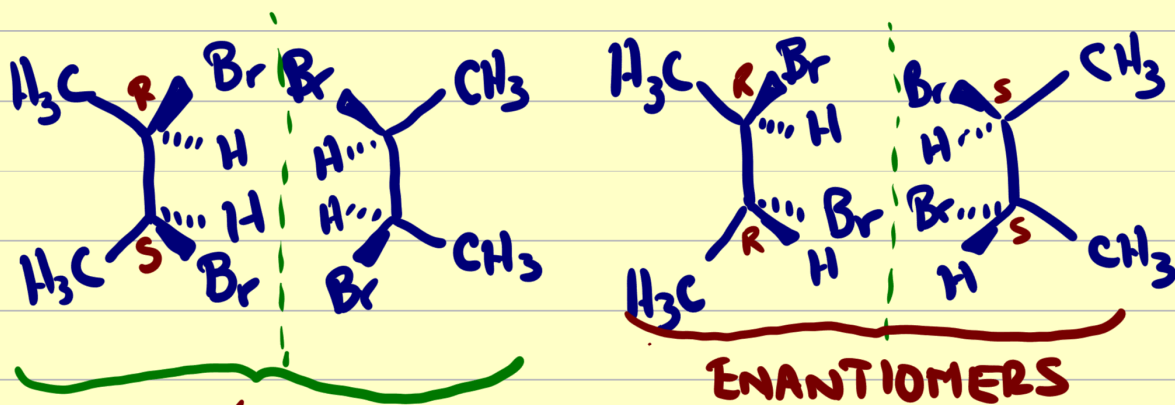




CAN ALSO BE CALLED DIASTEREOMERS

DIASTEREOMERS - HAVE DIFFERENT PHYSICAL & SPECTROSCOPIC PROPERTIES; CAN BE SEPARATED BY CONVENTIONAL MEANS

BEWARE

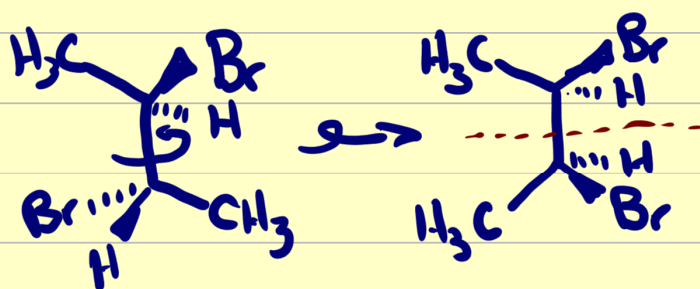


MESO FORMS - HAVE CHIRAL CENTRES, BUT ARE SUPERIMPOSABLE

∴ NOT ENANTIOMERS, NOT A CHIRAL COMPOUND - THEY ARE IDENTICAL.

- WHEN MOLECULE HAS AN INTERNAL MIRROR PLANE (TOP HALF + BOTTOM HALF HAVE SAME SUBSTITUENTS).
- WHEN THE CHIRAL CENTRES ARE EXACTLY OPPOSITE IN THE OTHER HALF OF THE MOLECULE

WATCH OUT

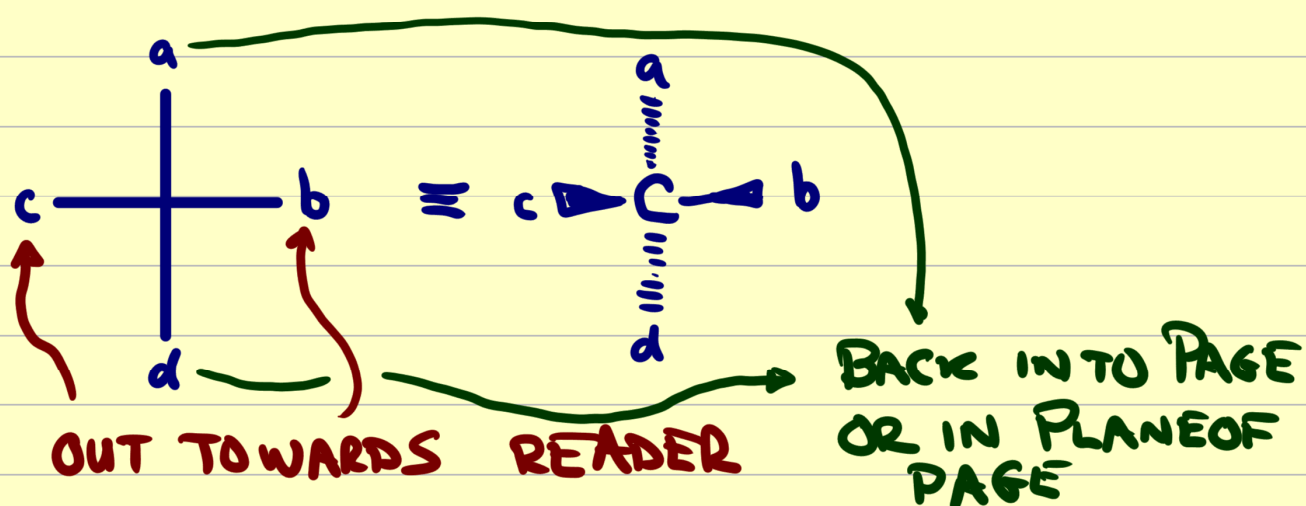


END OF TEST II MATERIAL.

FISCHER PROJECTIONS.

- A WAY OF DRAWING CHIRAL CENTRES IN 2-DIMENSIONS

∴ A SERIES OF ARTIFICIAL RULES



TO DETERMINE CHIRALITY, GET LOWEST PRIORITY GROUP STRAIGHT DOWN OR STRAIGHT UP

- THEN $a \rightarrow b \rightarrow c$ CLOCKWISE \Rightarrow (R) -
COUNTERCLOCKWISE \Rightarrow (S) -

SERIES OF ARTIFICIAL RULES

- 1) ROTATE BY 90°
- 2) ROTATE BY 180°
- 3) EXCHANGE 2 GROUPS
- 4) 3 SITE EXCHANGE