

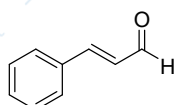


POLITECNICO
MILANO 1863

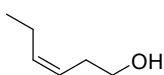
TECHNOLOGIES FOR FOOD CHEMISTRY
Fabio Parmeggiani – Valentina Dichiarante
Academic year 2025/2026

E02 – Fundamentals of organic chemistry

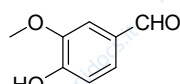
(1) Provide the correct IUPAC name of the following odorants.



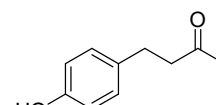
cinnamaldehyde
(cinnamon)



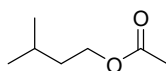
leaf alcohol
(freshly cut grass)



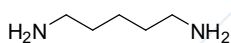
vanillin
(vanilla)



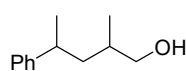
raspberry ketone
(raspberry)



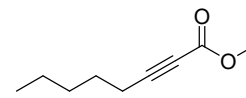
isoamyl acetate
(banana)



cadaverine
(rotting flesh)

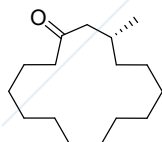


pamplefleur
(grapefruit, floral)

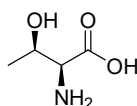


folione
(green, floral)

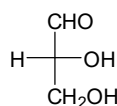
(2) Assign the absolute configuration of all stereocenters in the following natural products.



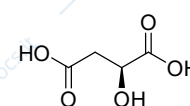
(-)-muscone



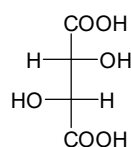
L-threonine



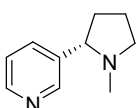
D-(+)-glyceraldehyde



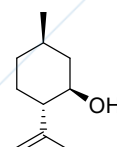
L-(-)-malic acid



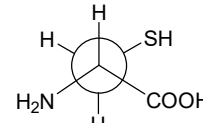
L-(+)-tartaric acid



(-)-nicotine

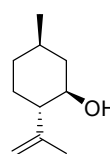
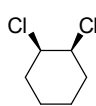
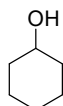


(-)-menthol



D-cysteine

(3) Draw both chair conformations of the following cyclohexane derivatives and identify the most stable of the two.



(4) For each of the following sets of structures, state which pairs are regioisomers, enantiomers, diastereoisomers or identical.

