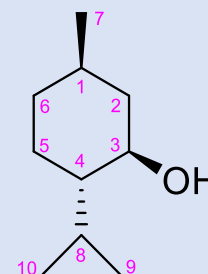


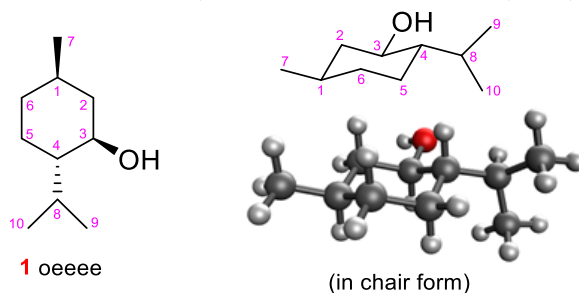
Abbreviations for the nomenclature of menthol metabolites referred to by the present study
and
a list of 102 compounds in this study grouped by molecular formula

Position \ Group	3	7	8	9	10
Original form	o	e	e	e	e
Alkane	-	e	e	e	e
Alcohol	o	o	o	<u>o</u>	o
Aldehyde	y	<u>y</u>	-	<u>y</u>	y
Carboxylic acid	-	<u>x</u>	-	<u>x</u>	-
Dehydration	-4D for four-membered ring formation at positions 3 and 8				
Aldol reaction	-5A for four-membered ring formation at positions 3 and 9				
Glucuronic acid	O	<u>O,X</u>	-	<u>O,X,Y</u>	-
Sulfate group	s	-	-	-	-

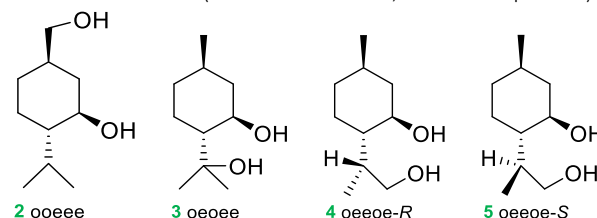


- An underlined indicates that there are *R* and *S* stereoisomers due to the substitution.
- Substitution at position 9 leads to a new chiral center if it is not the same as 10.
- Substitution at position 10 is forced to have lower or the same oxidation state for the carbon atom when compared to position 9.
- Dashes are where substitution with the functional group at that respective position cannot occur

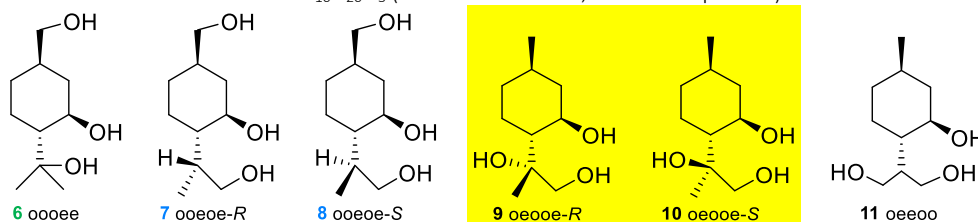
formula: C₁₀H₂₀O (molar mass 156.26, total 1 compound)



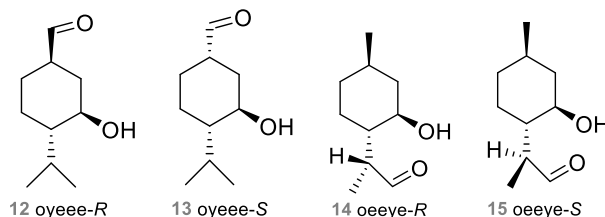
formula: C₁₀H₂₀O₂ (molar mass 172.26, total 4 compounds)



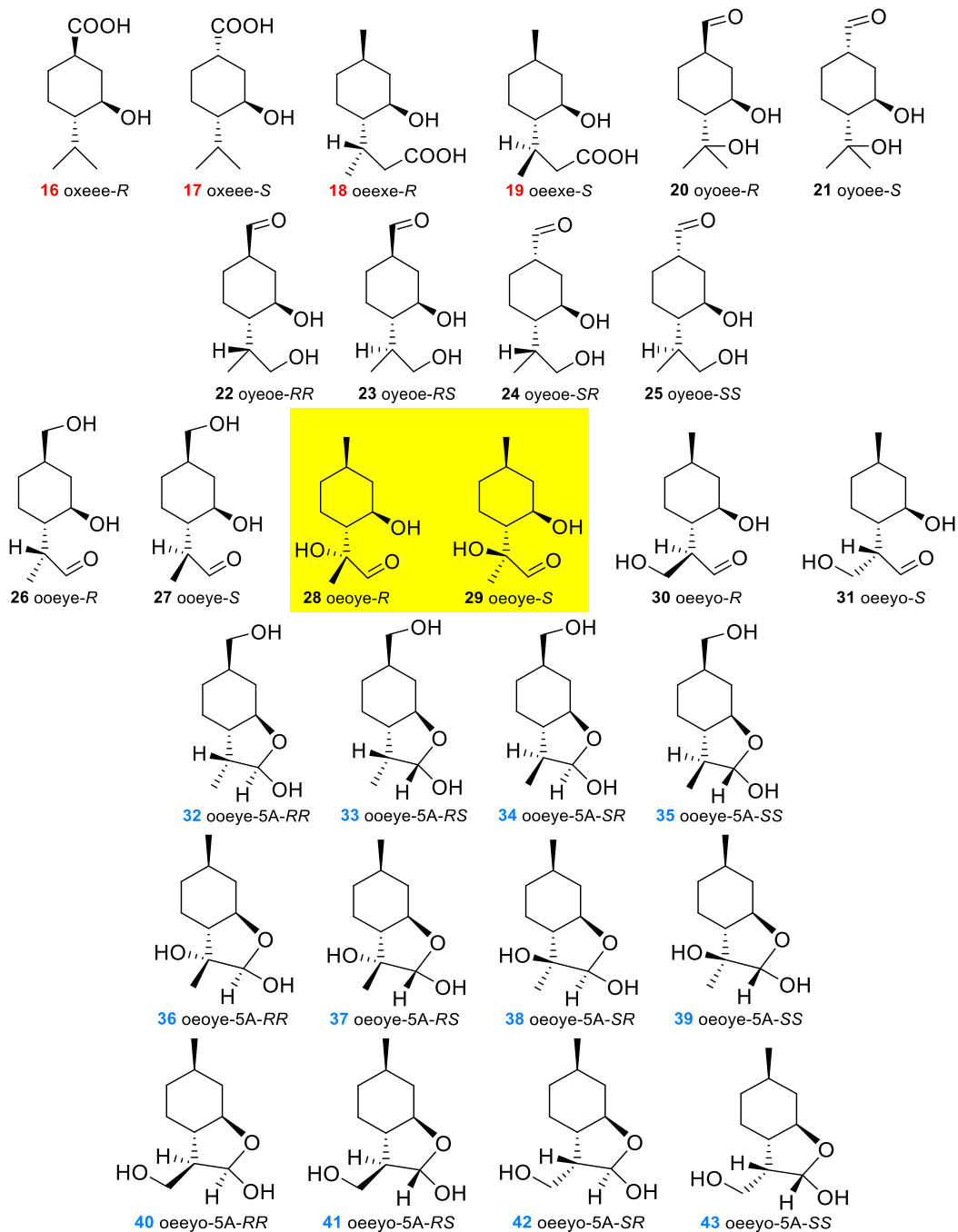
formula: C₁₀H₂₀O₃ (molar mass 188.26, total 6 compounds)



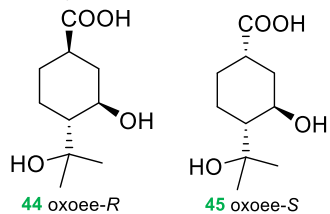
formula: C₁₀H₁₈O₂ (molar mass 170.25, total 4 compounds)



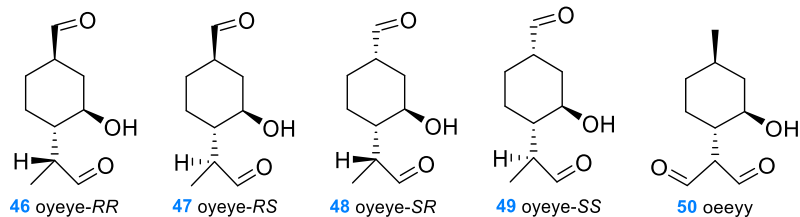
formula: $C_{10}H_{18}O_3$ (molar mass 186.25, total 28 compounds)



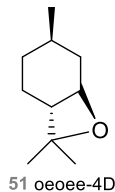
formula: $C_{10}H_{18}O_4$ (molar mass 202.25, total 2 compounds)



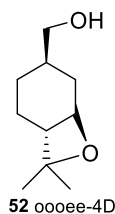
formula: C₁₀H₁₆O₃ (molar mass 184.23, total 5 compounds)



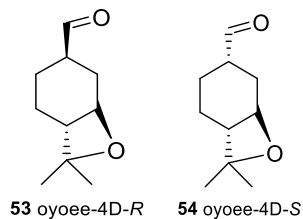
formula: C₁₀H₁₈O (molar mass 154.25, total 1 compound)



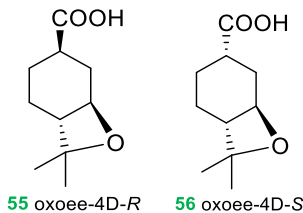
formula: C₁₀H₁₈O₂ (molar mass 170.25, total 1 compound)



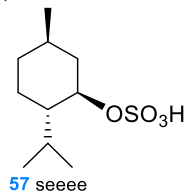
formula: C₁₀H₁₆O₂ (molar mass 168.23, total 2 compounds)



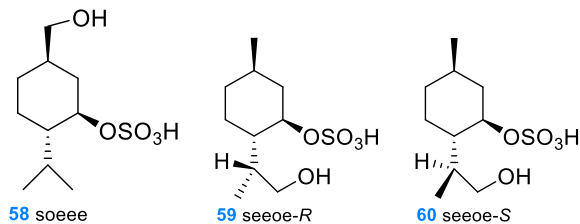
formula: C₁₀H₁₆O₃ (molar mass 184.23, total 2 compounds)



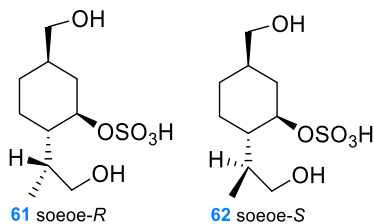
formula: C₁₀H₂₀O₄S (molar mass 236.33, total 1 compound)



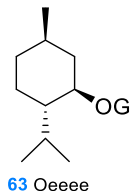
formula: C₁₀H₂₀O₅S (molar mass 252.33, total 3 compounds)



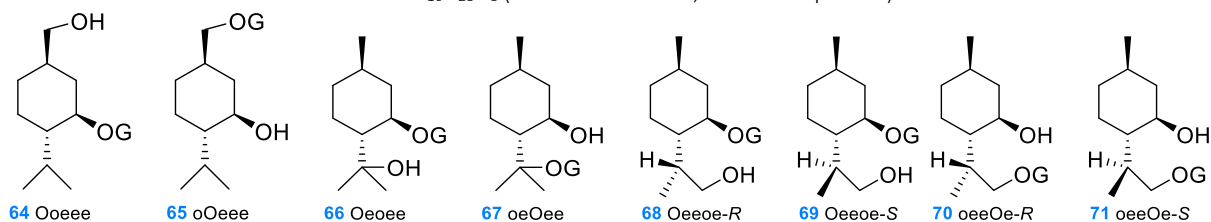
formula: C₁₀H₂₀O₆S (molar mass 268.33, total 2 compounds)



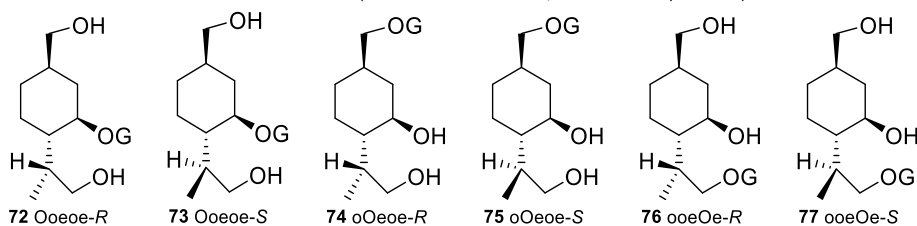
formula: C₁₆H₂₈O₇ (molar mass 332.39, total 1 compound)



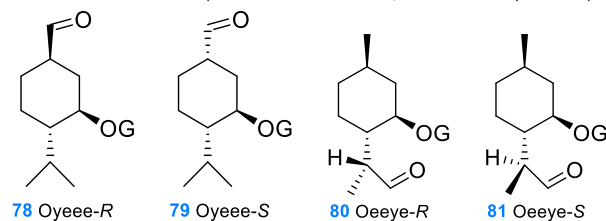
formula: C₁₆H₂₈O₈ (molar mass 348.39, total 8 compounds)



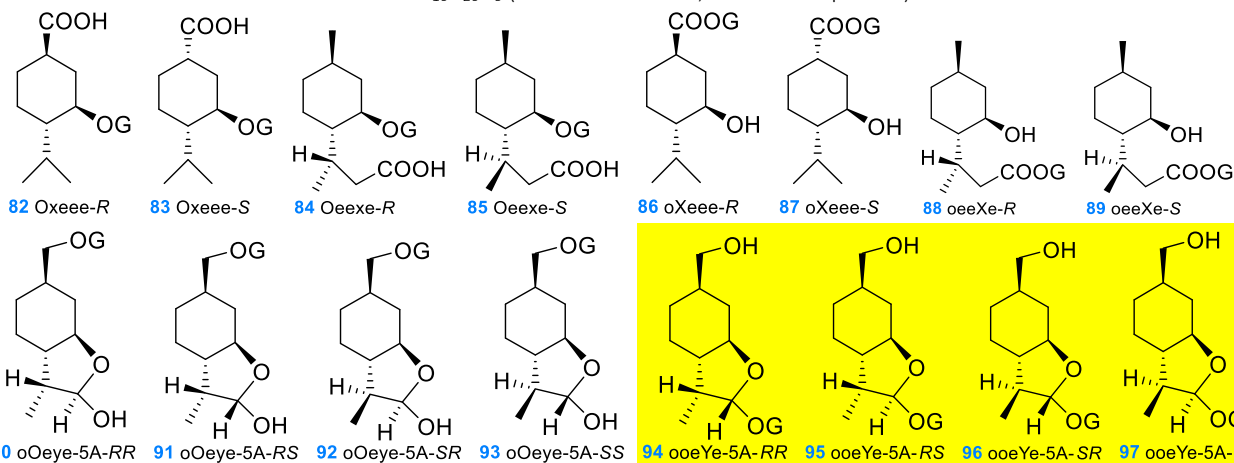
formula: C₁₆H₂₈O₉ (molar mass 364.39, total 6 compounds)



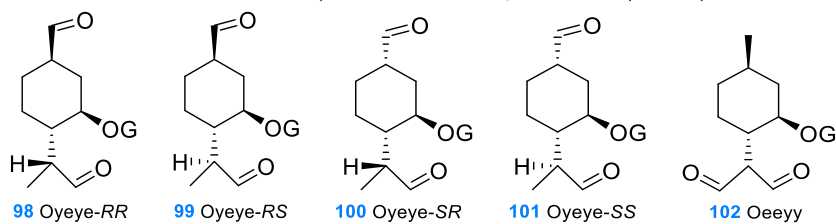
formula: C₁₆H₂₆O₈ (molar mass 346.37, total 4 compounds)



formula: C₁₆H₂₆O₉ (molar mass 362.37, total 16 compounds)



formula: $C_{16}H_{24}O_9$ (molar mass 360.36, total 5 compounds)



Notes

- Compounds are highlighted in yellow when their *RS* designator changes from their parent compounds.
- G stands for a glucuronyl group:

