

# COMPOUNDS WITH TRIVIAL OR UNUSUAL NAMES

## (Amino Acids, Dicarboxylic Acids, Aliphatic Carboxylic Acids, Sugars)

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### Amino Acids

AMINO ACID	CAS NUMBER	LANGUAGE	WORD ORIGIN	DESCRIPTION
alanine	56-41-7	German	alanin	irregular form of aldehyde (dehydrogenated alcohol)
arginine	74-79-3	German	arginin	unexplained
asparagine	70-47-3	Latin	asparagus	Found in asparagus
aspartic acid	56-84-8	Latin	asparagus	Found in asparagus
cysteine	52-90-4	Greek	kystis	bladder pouch; discovered in bladder stones
cystine	56-89-3	Greek	kystis	bladder pouch; discovered in bladder stones
glutamic acid	56-86-0	Latin	gluten + amino acid	glue
glutamine	56-85-9	Latin	gluten + amino acid	glue
glycine	56-40-6	Greek	glykeros	sweet
histidine	71-00-1	Greek	histos	tissue
isoleucine	73-32-5	Greek	leukos	light
leucine	61-90-5	Greek	leukos	light
lysine	56-87-1	Greek	lys-, lysi-	loosening
methionine	63-68-3	Greek	methyl + thion, theion	sulfur
ornithine	70-26-8	Greek	ornith-, ornis	bird (found in urine of birds)
Phenyl-alanine	63-91-2	German	phenyl + alanine	irregular form of aldehyde (dehydrogenated alcohol)
proline	147-85-3	German Greek	Prolin pyrrhos	Alteration of pyrrolidine Red
serine	56-45-1	Latin	sericum	Silk
threonine	72-19-5	Greek	erythron	Alteration of <i>erythron</i> (red) threonic acid

tryptophan	73-22-3	Greek	tryein	to wear down (foods containing tryptophan induce sleep)
tyrosine	60-18-4	Greek	tyros	cheese, butter
valine	72-18-4	Medieval Latin	Valeria	Roman province of formerly part of Pannonia, from valeric acid

### Dicarboxylic Acids

HOOC (CH <sub>2</sub> ) <sub>n</sub> COOH	CAS NUMBER	LANGUAGE	WORD ORIGIN	DESCRIPTION
Oxalic n = 0	144-62-7	Latin	oxalis	Wood sorrel
Malonic n = 1	141-82-2	French Latin	malonique malum	Alteration of malic apple
Succinic n = 2	110-15-6	Latin	succinum	Amber
Glutaric n = 3	110-94-1	Latin	Gluten	glue
Adipic n = 4	124-04-9	Latin	adip	Fat, lard
Pimelic n = 5	111-16-0	Greek	pimele	Soft fat
Suberic n = 6	505-48-6	Latin	suber	cork
Azelaic n = 7	123-99-9			
Sebacic n = 8	111-20-6	Latin	sebaceus	Tallow, grease, fatty
Undecanedioic acid n = 9	1852-04-6	Latin	Undecim (11) Unus (1) Decem (10)	Un (1) + deca (10)
Dodecanedioic acid n = 10	693-23-2	Greek	Dodeka (12) Dyo (2) Deka (10)	Do (2) + deca (10)

### n-Alkylcarboxylic acids

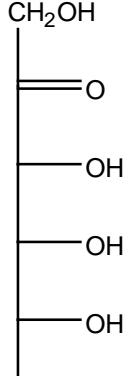
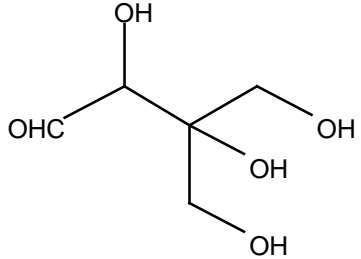
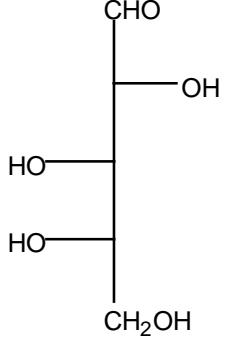
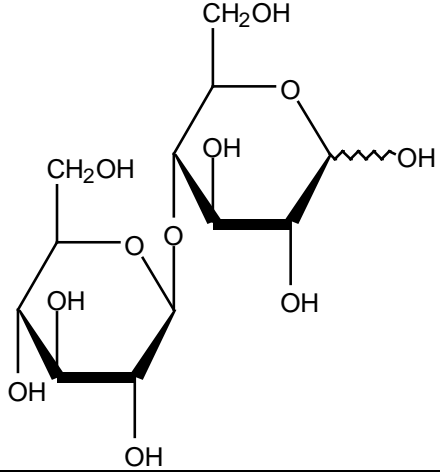
CH <sub>3</sub> (CH <sub>2</sub> ) <sub>n</sub> COOH		CAS NUMBER	LANGUAGE	WORD ORIGIN	DESCRIPTION
acetic	0	64-19-7	Latin	Acetum Acere Acer	Vinegar, sour, sharp
propanoic	1	79-09-4			
butyric	2	107-92-6	Latin	butyrum	
valeric	3	109-52-4	Latin	Valeriana	From the root of valerian ( <i>Valeriana</i> genus of herbs); Valeria, Roman province

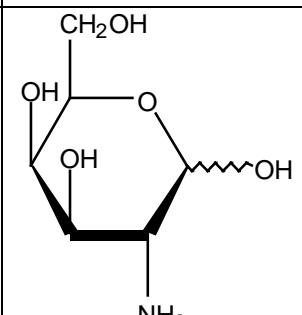
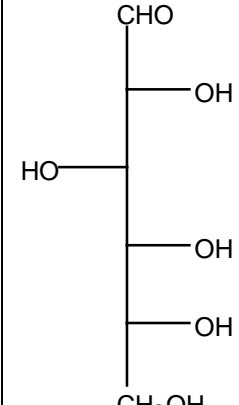
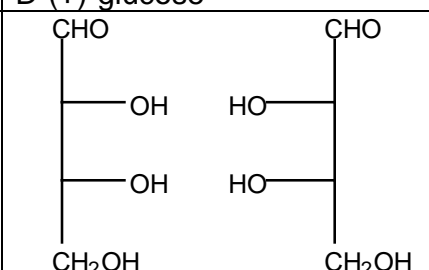
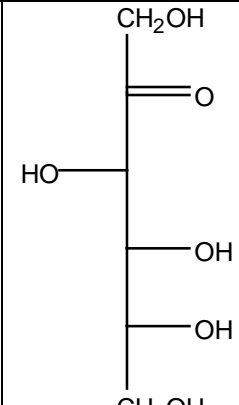
					formerly part of Pannonia
caproic	4	142-62-1	Latin	caper	Goat; smell under the armpits
oenanthylic	5	111-14-8			
caprylic	6	124-07-2	Latin	caper	Goat; smell under the armpits
pelargonic	7	112-05-0	Greek	pelargos	<i>Pelargonium</i> genus of herbs
capric	8	334-48-5	Latin	caper	Goat; smell under the armpits
undecanoic	9	112-37-8	Latin Greek	Undecim Unus (1) Deka (10) Decem (10)	Un (1) + deca (10)
lauric	10	143-07-7	Latin	laurus	Laurel, bay tree
tridecanoic	11	638-53-9	Latin Greek	Tres (3) Treis (3) Deka (10) Decem (10)	Tri (3) + deca (10)
myristic	12	544-63-8	Latin	Myristica	<i>Myristica</i> genus of trees
pentadecanoic	13	1002-84-2	Latin Greek	Pente (5) Deka (10) Decem (10)	Penta (5) + deca (10)
palmitic	14	57-10-3	French, Spanish	Palmitine, Palmito, palma	Pith of the palm tree
margaric	15	506-12-7	French	margarique	
stearic	16	57-11-4	French Greek	Stearique, stear	tallow
Nonadecanoic	17	646-30-0	Latin Greek	Nonus (9) Deka (10) Decem (10)	Nona (9) + Deca (10)
arachidic	18	506-30-9	Greek	arachis	<i>Lathyrus arnuus</i> , a leguminous plant
Heneicosanoic	19	2363-71-5	Greek	Eikosi (20)	Hene (1) + icoso (20)
behinic	20	112-85-6			
Tricosanoic	21	2433-96-7	Greek Latin	Tres (3) Treis (3) Eikosi (20)	Tri (3) + icoso (20)
Tetracosanoic	22	557-59-5	Greek	Tettares (4) Eikosi (20)	Tetra (4) + icoso (20)
Hyenic	23	506-38-7			
Cerotic	24	506-46-7	Latin, Greek	Cerotum, Keroton, keros	Pomade, wax
Hepta-Cosanoic	25	7138-40-1	Greek	Hepta (7) Eikosi (20)	Hepta (7) + icoso (20)
Octa-Cosanoic	26	506-48-9	Greek Latin	Okta (8) Octo (8) Eikosi (20)	Octa (8) + icoso (20)
Nona-cosanoic	27	4250-38-8	Latin Greek	Nonus (9) Eikosi (20)	Nona (9) + icoso (20)
melissic	28	506-50-3	Greek	Melissa	Greek mythology: sister of

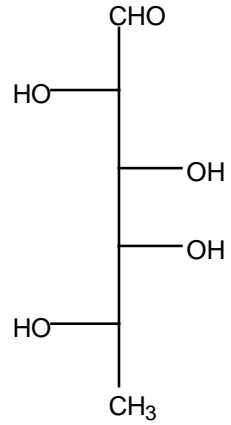
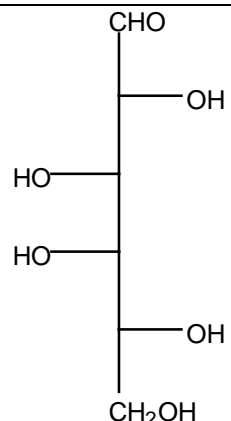
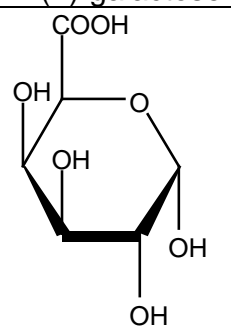
					Amalthea who nourished infant Zeus with honey
Hentria-Contanoic	29	38232-01-8	Latin Greek	Tres (3) Treis (3)	Hen (1) + Tri (3) X Conta (10)
Dotria-contanoic	30	3625-52-3	Latin Greek	Dyo (2)	Do (2) + Tri (3) X Conta (10)

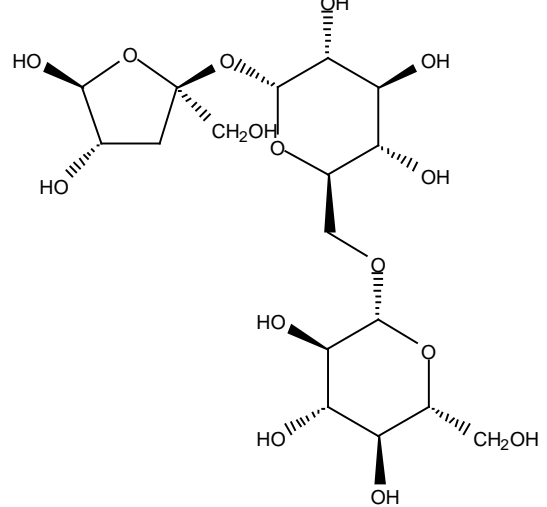
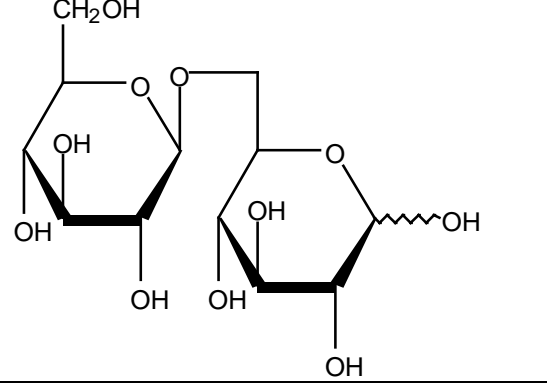
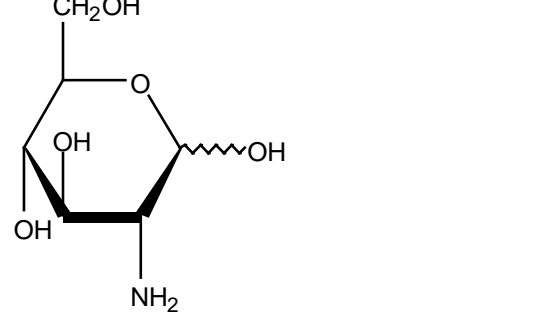
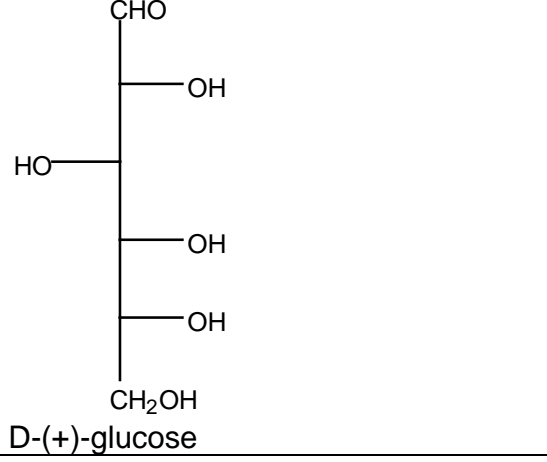
### Sugars

NAME OF COMPOUND	CAS NUMBER	Origin	Structure
Adonitol	488-81-3		$  \begin{array}{c}  \text{CH}_2\text{OH} \\    \\  \text{--- OH} \\    \\  \text{--- OH} \\    \\  \text{--- OH} \\    \\  \text{CH}_2\text{OH}  \end{array}  $
Allose	2595-97-3 (D)		$  \begin{array}{c}  \text{CHO} \\    \\  \text{HO---} \\    \\  \text{HO---} \\    \\  \text{HO---} \\    \\  \text{HO---} \\    \\  \text{CH}_2\text{OH}  \end{array}  $ <p>L-(-)-allose</p>
Altrose	5987-68-8		$  \begin{array}{c}  \text{CHO} \\    \\  \text{--- OH} \\    \\  \text{HO---} \\    \\  \text{HO---} \\    \\  \text{HO---} \\    \\  \text{CH}_2\text{OH}  \end{array}  $ <p>L-(-)-altrose</p>

Allulose (psicose, pseudo-fructose)	23140-52-5		 <p>CH<sub>2</sub>OH D-allulose</p>
Amylose	9005-82-7	Greek: <i>Amylon</i> Latin: <i>Amylum</i> (not ground at the mill)	Polymer of glucose units by hydrolysis of starch
Apiose	42927-70-8 639-97-4 (D)		
Arabinose	10323-20-3 (D) 20235-19-2 (DL) 5328-37-0 (L)	Arabin (solid principle in gum arabic)	 <p>CH<sub>2</sub>OH L-(+)-arabinose</p>
Cellobiose (cellose)	528-50-7	French: <i>Cellule</i> (living cell) Latin: <i>Cellula</i>	
Cellulose	9004-34-6	French:	

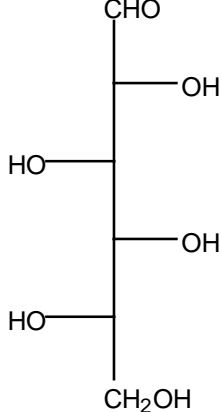
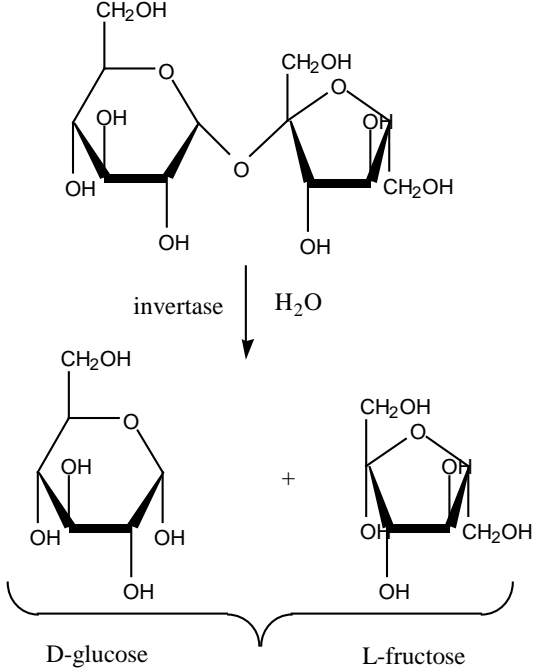
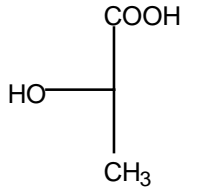
		<p><i>Cellule</i> (living cell) Latin: <i>Cellula</i></p>	
Chondrosamine (galactosamine)	7535-00-4	<p>Greek: <i>Chondros</i> (grain, cartilage)</p>	
Dextrose (D-glucose)	50-99-7	<p>Greek: dexios Latin: dexter (to the right)</p>	 <p>D-(+)-glucose</p>
Erythrose	1758-51-6	<p>Greek: <i>Erythros</i> (red)</p>	 <p>D-erythrose (-)                  L-erythrose (+)</p>
Fructose (levulose)	57-48-7 (D) 7776-48-9 (L)	<p>Latin: <i>Fructus</i> (fruit)</p>	 <p>D(-)-fructose</p>

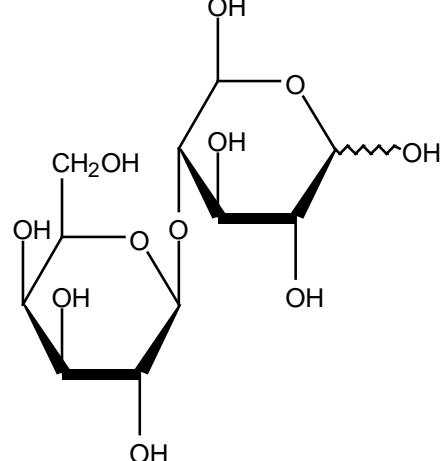
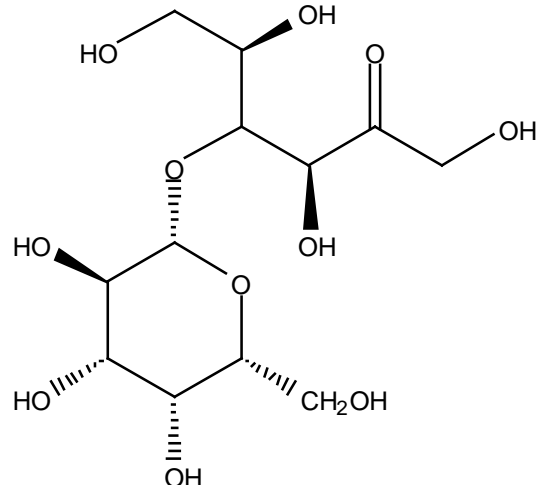
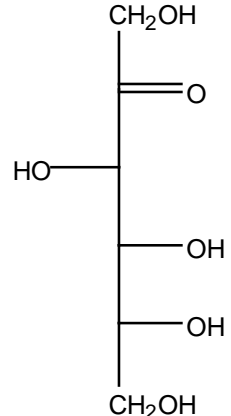
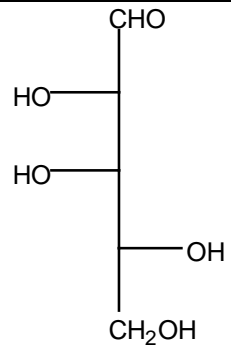
Fucose	3615-37-0 (D) 2438-80-4 (L)	Latin: <i>Fucus</i> Greek: <i>Phykos</i> (seaweed) Found in brown algae of genus <i>Fucus</i>	 <p style="text-align: center;">L(-)-fucose</p>
Galactogen	37208-43-8	Greek: <i>Galakt-, gala</i> (milk)	
Galactose	59-23-4 (D) 15572-79-9 (L)	Greek: <i>Galaxias,</i> <i>Galakt-, gala</i> (milk)	 <p style="text-align: center;">D-(+)-galactose</p>
Galacturonic acid	685-73-4	Greek: <i>Galaxias,</i> <i>Galakt-, gala</i> (milk)	 <p style="text-align: center;"><math>\alpha</math>-D-galacturonic acid</p>

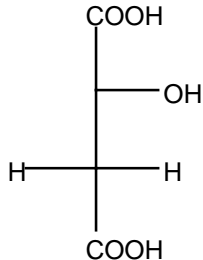
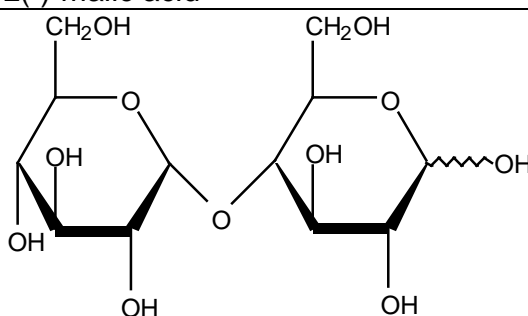
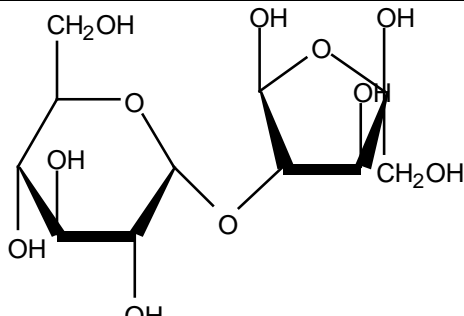
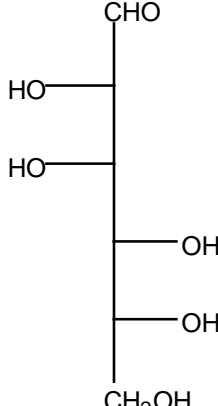
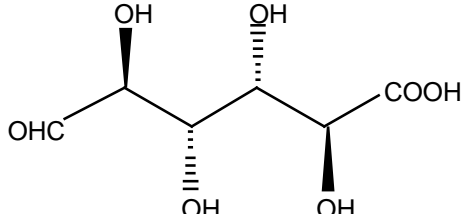
Gentianose	25954-44-3	Latin: <i>Gentiana</i> From roots of various kinds of herbs of genus <i>Gentiana</i>	
Gentiobiose	554-91-6	Latin: <i>Gentiana</i> From roots of various kinds of herbs of genus <i>Gentiana</i>	
Glucosamine (chitosamine)	3416-24-8	Greek: <i>Glykeros</i> (sweet) Latin: <i>Gluten</i> (glue)	
Glucose (dextrose)	50-99-7 (D) 921-60-8 (L) 58367-01-4 (DL)	Greek: <i>Glykeros</i> (sweet) Latin: <i>Gluten</i> (glue)	 <p>D-(+)-glucose</p>

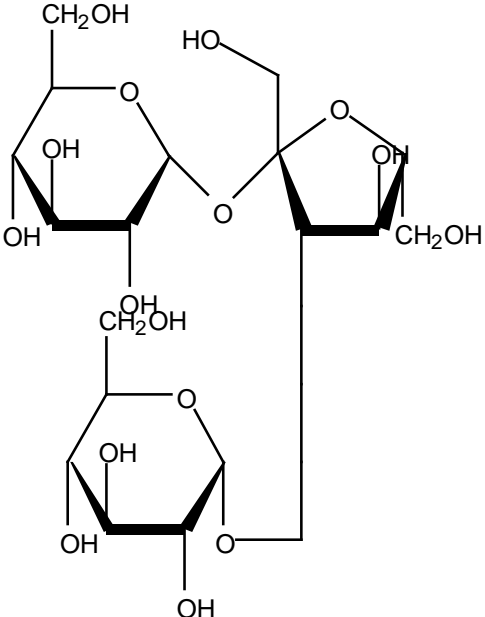
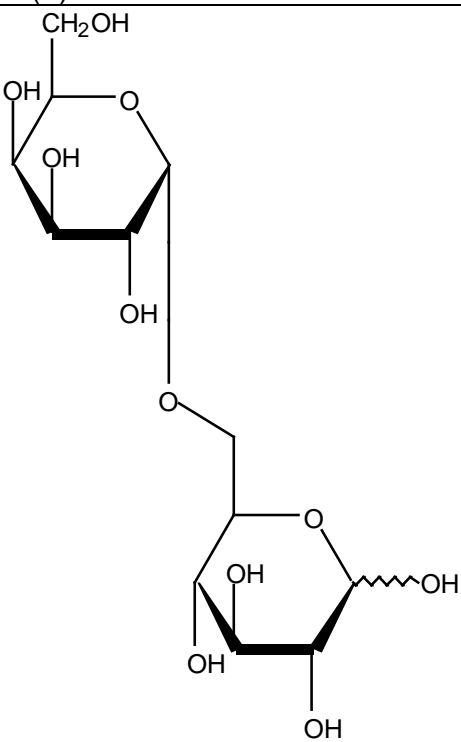


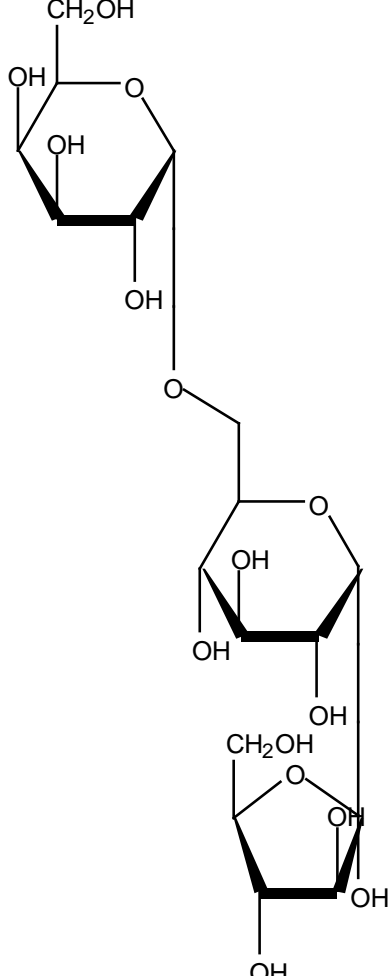
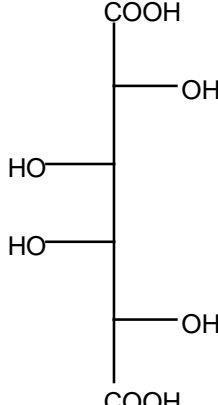
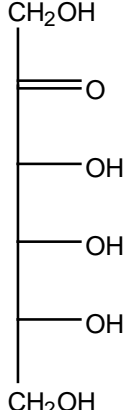
Glucuronic acid	6556-12-3 (D) 576-37-4 (DL)	Greek: <i>Glykeros</i> (sweet) Latin: <i>Gluten</i> (glue)	$  \begin{array}{c}  \text{CHO} \\    \\  \text{--- OH} \\    \\  \text{HO---} \\    \\  \text{--- OH} \\    \\  \text{--- OH} \\    \\  \text{COOH}  \end{array}  $ <p>D-glucuronic acid</p>
Glyceraldehyde	453-17-8 (D) 497-09-6 (L) 56-82-6 (DL)	Greek: <i>Glykeros</i> (sweet)	$  \begin{array}{cc}  \begin{array}{c}  \text{CHO} \\    \\  \text{--- OH} \\    \\  \text{CH}_2\text{OH}  \end{array}  &  \begin{array}{c}  \text{CHO} \\    \\  \text{HO---} \\    \\  \text{CH}_2\text{OH}  \end{array}  \end{array}  $ <p>D-glyceraldehyde (+)      L-glyceraldehyde (-)</p>
Glycogen	9005-79-2	Greek: <i>Glykeros</i> (sweet)	
Gulonic acid	20246-53-1		$  \begin{array}{c}  \text{CH}_2\text{OH} \\    \\  \text{--- OH} \\    \\  \text{HO---} \\    \\  \text{--- OH} \\    \\  \text{--- OH} \\    \\  \text{COOH}  \end{array}  $ <p>L-gulonic acid</p>
Gulose	6027-89-0 (L)		$  \begin{array}{c}  \text{CH}_2\text{OH} \\    \\  \text{--- OH} \\    \\  \text{HO---} \\    \\  \text{--- OH} \\    \\  \text{--- OH} \\    \\  \text{CHO}  \end{array}  $ <p>L-(+)-gulose</p>

Idose	2152-76-3		 <p>L-(+)-idose</p>
Inulin	9005-80-5	<p>German: <i>Inulin</i> Latin: <i>Inula</i> (elecampane) <i>Campana</i> (of the field) European composite herb <i>Inula helenium</i></p>	
Invertose (invert sugar)	8013-17-0	<p>Mixture of glucose (dextrose = D-(+)-glucose) and fructose (levulose = L-(-)-fructose) made by hydrolysis of sucrose (usually by invertase enzyme); the word invert comes from the fact that the sign of optical rotation is reversed when sucrose is hydrolyzed (positive to negative rotation)</p>	 <p>D-glucose + L-fructose</p>
Lactic acid	10326-41-7 (D) 79-33-4 (L) 50-21-5 (DL)	<p>Greek: <i>Galaxias</i>, <i>Galakt-</i>, <i>gala</i> (milk) Latin: <i>Lact-</i></p>	 <p>L(+)-lactic acid</p>

Lactose (D-galactose + D-glucose)	63-42-3	Greek: <i>Galaxias,</i> <i>Galakt-, gala</i> (milk) Latin: <i>Lact-</i>	
Lactulose (D-fructose + $\beta$ -D- galactopyranosyl)	4618-18-2	Greek: <i>Galaxias,</i> <i>Galakt-, gala</i> (milk) Latin: <i>Lact-</i>	
Levulose (L-fructose)	57-48-7 (D)	Latin: <i>Laevus</i> (situated to the left)	 <p>D-(-)-fructose</p>
Lyxose	1114-34-7 (D) 1949-78-6 (L)		 <p>D-(-)-lyxose</p>

Malic acid	636-61-3 (D) 97-67-6 (L)	French: <i>Malique</i> Latin: <i>Malum</i> (apple) Greek: <i>Melon, malon</i>	 <p>L(-)-malic acid</p>
Maltose	6363-53-7 (D)	English: Mealt, meltan (to melt) German: Malz Produced by softening of grain by steeping in water and allowing to germinate	 <p><math>\beta</math>-(+); <math>\alpha</math>-(-)</p>
Maltulose	17606-72-3	As above	
Mannose	3458-28-4 (D) 10030-80-5 (L)	<i>Manna</i> Hebrew: <i>man</i> (food miraculously supplied to the Israelites in their journey through the wilderness)	 <p>D-(+)-mannose</p>
Mannuronic acid	6814-36-4	As above	

Melezitose	597-12-6 (D)		 <p>D-(+)-melezitose</p>
Melibiose (galactose + glucose)	585-99-9 (D)		 <p>D-(+)-melibiose</p>

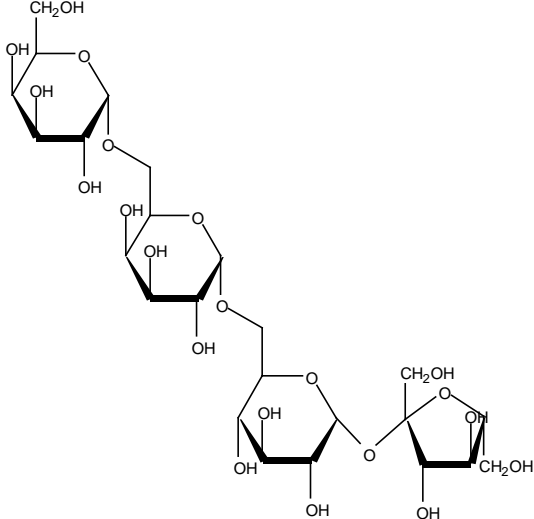
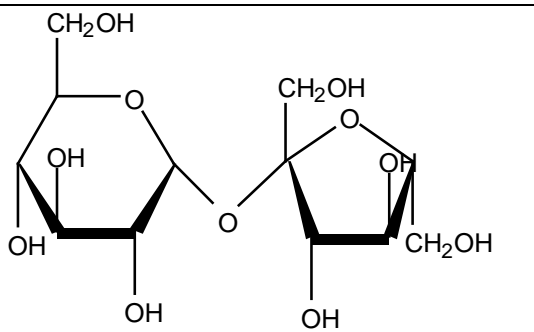
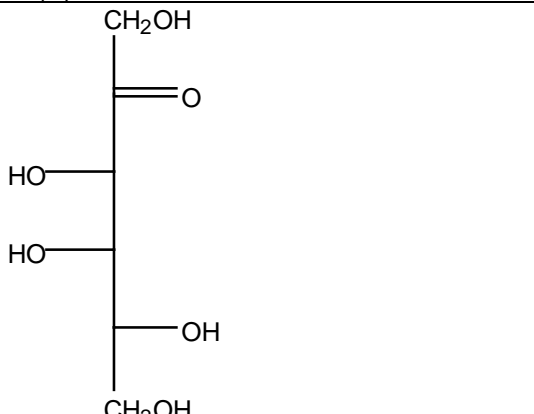
<p>Melitose (D-(+)-raffinose)</p>	<p>512-69-6</p>	<p>Greek: <i>mele</i> (honey)</p>	 <p>The structure shows a galactose molecule in its pyranose form at the top, connected via an oxygen atom to the C4 of a sucrose molecule. The sucrose molecule consists of a glucose molecule in its pyranose form and a fructose molecule in its furanose form, both linked together at their C1 positions.</p>
<p>Mucic acid (saccharolactic acid)</p>	<p>526-99-8</p>	<p>Latin: <i>Mucus</i> French: <i>mucique</i></p>	 <p>The structure is a Fischer projection of a six-carbon dicarboxylic acid. The top and bottom carbons are labeled COOH. The second carbon from the top has an OH group on the right. The third and fourth carbons from the top have HO groups on the left. The fifth carbon from the top has an OH group on the right.</p>
<p>Psicose (allulose, pseudo-fructose)</p>	<p>23140-52-5</p>		 <p>The structure is a Fischer projection of a six-carbon alditol. The top and bottom carbons are labeled CH<sub>2</sub>OH. The second carbon from the top has a double bond to an oxygen atom (=O) on the left. The third, fourth, and fifth carbons from the top have OH groups on the right.</p>

			D-psicose
Quinovose (D-glucomethylose, D-isorhamnose, isorhodeose)	7658-08-4	Found in cinchona barks	
Racemic acid	133-37-9	Latin: <i>racemus</i> Bunch of grapes Latin: <i>racemosus</i> Full of clusters	Usually refers to racemic mixture (1:1) of <i>dextrorotatory</i> and <i>levorotatory</i> forms of tartaric acid which is found in grapes
Raffinose	17629-30-0 (D)	French: <i>Raffiner</i> (to refine)	

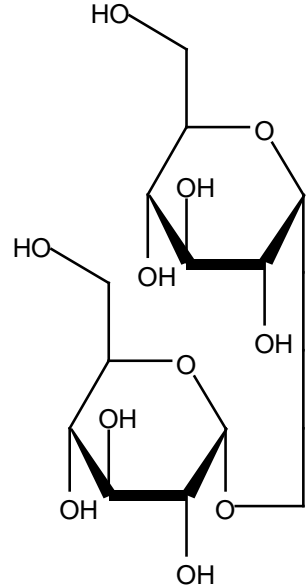
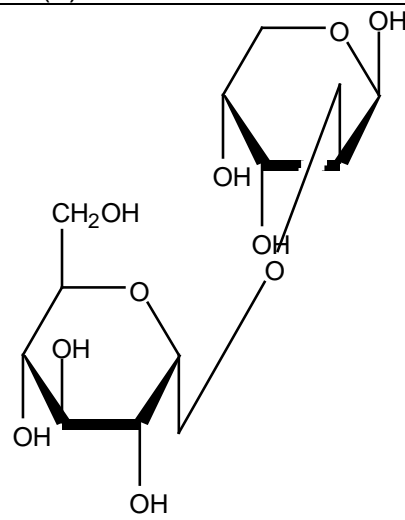
D-(+)-raffinose

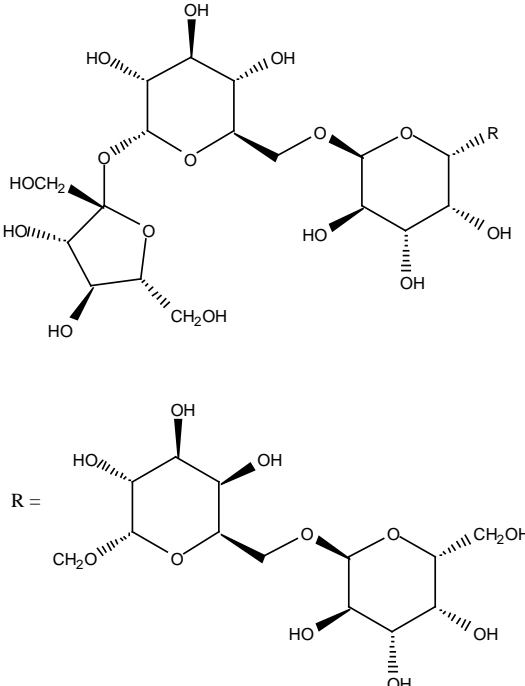
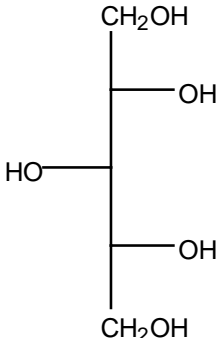
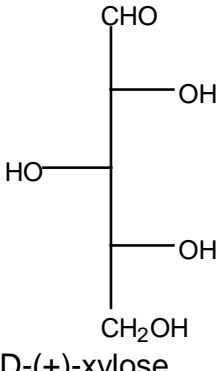
Rhamnose	3615-41-6 (L)	Greek: <i>rhamnos</i> Latin: <i>rhamnus</i> Relating to the buckthorn family <i>Rhamnaceae</i>	$  \begin{array}{c}  \text{CHO} \\    \\  \text{---OH} \\    \\  \text{---OH} \\    \\  \text{HO---} \\    \\  \text{HO---} \\    \\  \text{CH}_3  \end{array}  $ <p>L-(+)-rhamnose</p>
Ribose	50-69-1 (D) 24259-59-4 (L)	German: <i>Ribose</i> <i>Ribonsäure</i> (from arabinose by arbitrary rearrangement and shortening)	$  \begin{array}{cc}  \text{CHO} & \text{CHO} \\    &   \\  \text{---OH} & \text{HO---} \\    &   \\  \text{---OH} & \text{HO---} \\    &   \\  \text{---OH} & \text{HO---} \\    &   \\  \text{CH}_2\text{OH} & \text{CH}_2\text{OH}  \end{array}  $ <p>D-ribose (-)                  L-ribose (+)</p>
Saccharic acid	87-73-0	Latin: <i>Saccharum</i> (sugar)	$  \begin{array}{c}  \text{COOH} \\    \\  \text{---OH} \\    \\  \text{HO---} \\    \\  \text{---OH} \\    \\  \text{---OH} \\    \\  \text{COOH}  \end{array}  $ <p>D-saccharic acid</p>
Sorbose	3615-56-3 (D) 87-79-6 (L) 3615-39-2 (DL)	French: <i>sorbe</i> Latin: <i>sorbum</i> (fruit of the service tree)	$  \begin{array}{c}  \text{CH}_2\text{OH} \\    \\  \text{=O} \\    \\  \text{HO---} \\    \\  \text{---OH} \\    \\  \text{HO---} \\    \\  \text{CH}_2\text{OH}  \end{array}  $ <p>L-(-)-sorbose</p>



Stachyose (galactose + galactose + glucose + fructose)	10094-58- 3	From root nodules of <i>Staphys tuberifera</i>	
Starch	9005-25-8	English (15 cent.): <i>sterche</i> (to stiffen) German: <i>Starke</i>	
Sucrose (saccharose) (D-glucose + D-fructose)	57-50-1 (D)	French: <i>sucre</i> (sugar) German: <i>zucker</i>	 <p>D-(+)-sucrose</p>
Tagatose	87-81-0 (D)		 <p>D-tagatose</p>

Talomucic acid	5666-23-9	Common Romanic: <i>Talo, talonem</i> (heel) Latin: <i>Mucus</i> French: <i>mucique</i>	$  \begin{array}{c}  \text{COOH} \\    \\  \text{HO} -   \\    \\  \text{HO} -   \\    \\  \text{HO} -   \\    \\    - \text{OH} \\    \\  \text{COOH}  \end{array}  $ <p>D-talomucic acid</p>
Talose	2595-98-4 (D) 23567-25-1 (L)	Common Romanic: <i>Talo, talonem</i> (heel)	$  \begin{array}{c}  \text{CHO} \\    \\  \text{HO} -   \\    \\  \text{HO} -   \\    \\  \text{HO} -   \\    \\    - \text{OH} \\    \\  \text{CH}_2\text{OH}  \end{array}  $ <p>D-(+)-talose</p>
Tartaric acid	87-69-4 (L)(+) 133-37-9 (DL) 147-71-7 (D)(-) 147-73-9 (meso)	Latin <i>Tartarum</i> Persian: <i>Tatar</i> (Tartary, Tatary, region from Sea of Japan to Dnieper River, Ukraine)	$  \begin{array}{ccc}  \begin{array}{c} \text{COOH} \\   \\ \text{HO} -   \\   \\ \text{HO} -   \\   \\ \text{COOH} \end{array} &  \begin{array}{c} \text{COOH} \\   \\ \text{HO} -   \\   \\ \text{HO} -   \\   \\ \text{COOH} \end{array} &  \begin{array}{c} \text{COOH} \\   \\ \text{HO} -   \\   \\ \text{HO} -   \\   \\ \text{COOH} \end{array} \\  \text{D-tartaric acid} & \text{L-tartaric acid} & \text{meso-tartaric acid}  \end{array}  $
Threose	29884-64-8	Greek: Alteration of <i>erythron, erythros</i> (red)	$  \begin{array}{cc}  \begin{array}{c} \text{CHO} \\   \\ \text{HO} -   \\   \\ \text{HO} -   \\   \\ \text{CH}_2\text{OH} \end{array} &  \begin{array}{c} \text{CHO} \\   \\ \text{HO} -   \\   \\ \text{HO} -   \\   \\ \text{CH}_2\text{OH} \end{array} \\  \text{D-threose} & \text{L-threose} \\  (-) & (+)  \end{array}  $

Trehalose	99-20-7 (D)	<i>Trehala</i> (a sweet substance constituting the pupal covering of a beetle)	 <p>D-(+)-trehalose</p>
Turanose	547-25-1 (D)	French: <i>Touraco</i> Native name in West Africa of bird <i>Turacus persa</i> (formerly called crown birds) with brightly coloured plumage and prominent crest and are plantain eaters	 <p>D-(+)-turanose</p>

Verbascose	546-62-3	From <i>Verbascum thapsus</i> (Great Mullein or Aaron's Rod)	 <p>R =</p>
Xylitol	87-99-0	Greek: <i>xylon</i> (wood)	
Xylose	58-86-6 (D) 41247-05-6 (DL) 609-06-3 (L)	Greek: <i>xylon</i> (wood)	 <p>D-(+)-xylose</p>

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Dr. John Andraos,

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