[illegible]

[illegible] : [illegible]
[illegible]
. [illegible]

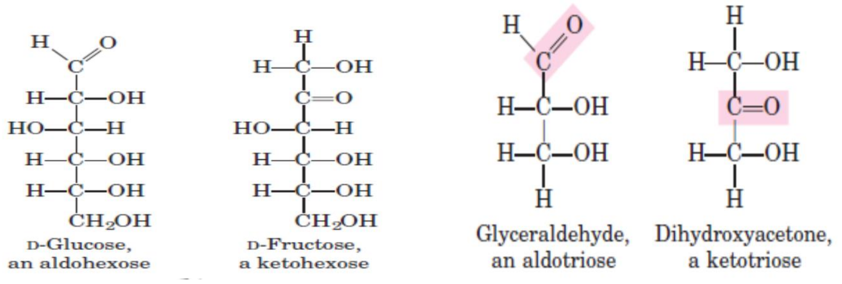
: [illegible]
[illegible]
. [illegible]

الفصـــل الاول

Carbohydrate: (الكاربوهيدرات (السكريات

[illegible]
. (Carbon hydrate) [illegible] (H:O) (2:1) [illegible]
[illegible] $(C_6H_{12}O_6)$ [illegible] $C_6(H_20)_6$ [illegible]
. $[C_n(H_2O)_n]$ [illegible]
[illegible]
$C_2(H2O)_2$, $C_3(H2O)_3$ [illegible] $CH_3COCOOH$ [illegible] CH_3COOH
Rhamanose $[C6H_{12}O_5]$ [illegible]
: [illegible]

هي عبارة عن مركبات كيتونية او الديهايدية متعددة مجاميع الهيدروكسيل .

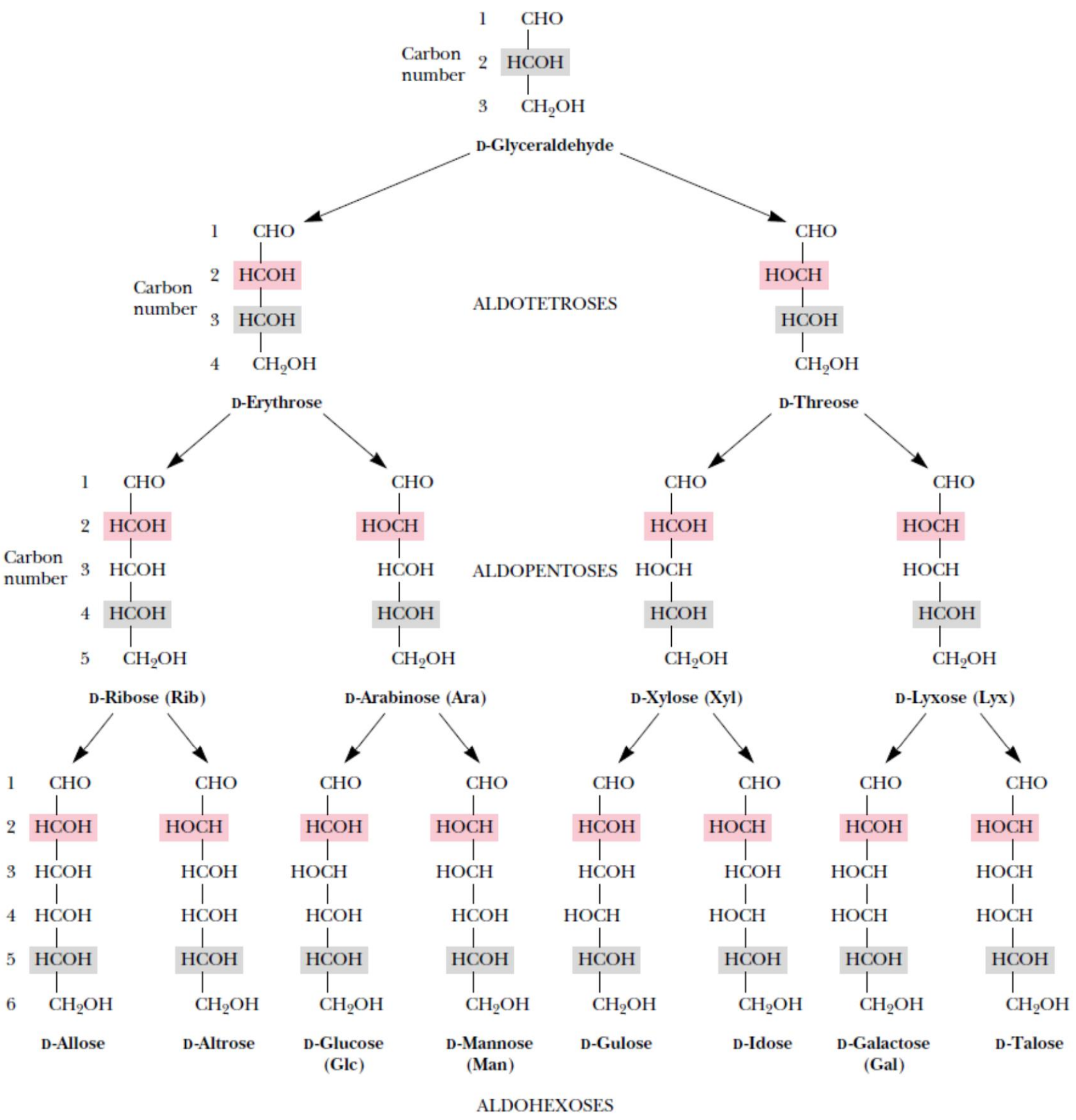


تصنيف الكربوهيدرات (السكريات) :

[illegible]
: [illegible]

[illegible] Monosaccharide [illegible]
[illegible]
. [illegible]

[illegible] Oligosaccharide [illegible]
[illegible]
.. [illegible]
[illegible] Polysaccharide [illegible]
. [illegible]



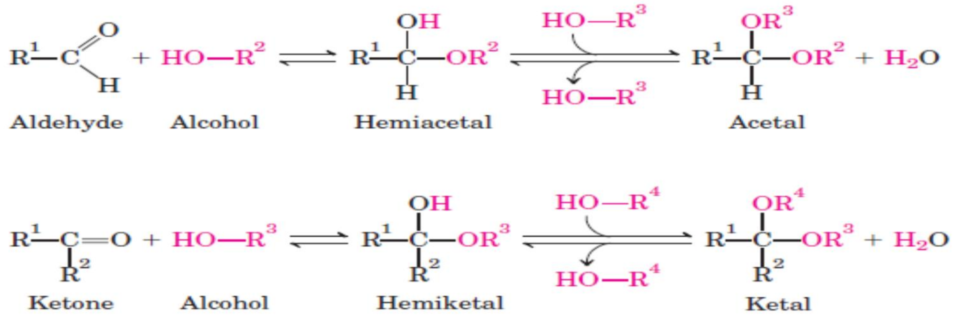
مميزات السكريات الاحادية

: ҏґк еуэуҺҕҔҕҒеуҔҍуґґ ҇ԓ҆ԥҏс ъҒҶ ҏҐҌЬҐҤҘҍуґэҍ

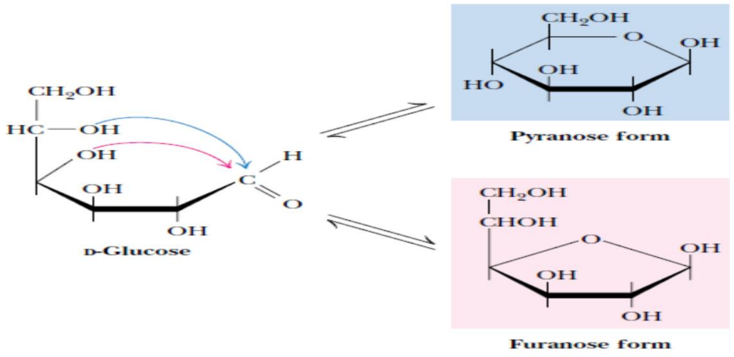
١- النشاط الضوئي Optical activity
٢- الايزومرات الفراغية Stereoisomer's

التراكيب الحلقية للسكريات الاحادية

ЙвЭҚҕҮҤҾ ТЭЇ Ұ҄ҍӍ҈ ҏҵҍҚҕҮҍЙуґ҇ сТԓнЦ ЛҤҸҬ ҏжэуЫҤӍ ҶҜҕлҪҔҒЏнЯҕ ЩҰҐҍ ԓ҆ԥҏс ъҒҶ ҏҐҌЬҐҤҘҒ
Ketal ЬҕэуЫҤӍҒAcetal ЬҕэуҔҍҒетнЬҤӨ ЯҗґҤҍнј ЫҤҿвеуҫҏЭҐ ЙвЭҚҕҮҤҌҏзЫҍьмShiff base СІ ҪҚҒнЦ
: ԓ҆ҏҬҤҸ ЫҚҕҮҤҾ Теуҙз ҏґЪмԓнЦ ЛҤҸҬ ҏжэуЫҤӍҒҶ ҜҕлҪҔҒсТЬҕј ҤҒнк ҏґЪ҈



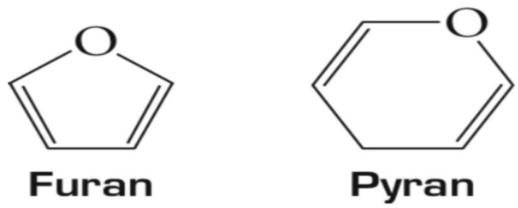
[illegible]



[illegible]

[illegible] Pyrane , Furane [illegible] pyranose [illegible] furanose [illegible] ......

Pyranoses and furanoses.



تفاعلات السكريات الاحادية

[illegible] :

Reaction with Conc. acid [illegible]

Reaction with Hydrazine ٢- التفاعل مع الهيدرازين

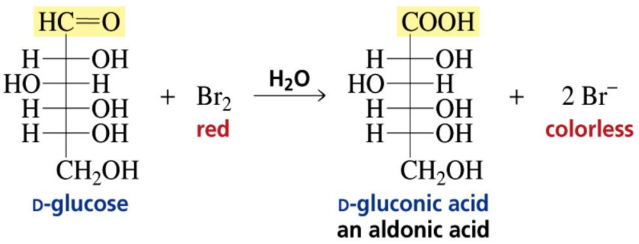
[illegible]

Oxidation of monosaccharide - اكسدة السكريات الاحادية

[illegible]

[illegible]

[illegible] :



Simple oxidation [illegible] :A

([illegible]) [illegible] :B

[illegible] :C

Bio-derivative of monosaccharide المشتقات الحيوية للسكريات الاحادية

Deoxy sugar [illegible] -/

Amino sugar [illegible]

Acid sugar [illegible]

[illegible]

[illegible] :

A : [illegible] Aldonic acid [illegible]

B : [illegible] Aldaric acid [illegible]

C : [illegible] uronic acid [illegible]

Oligosaccharide السكريات المعدودة

[illegible] (-) [illegible]

[illegible] (Glycoside bond) [illegible]

[illegible] n (n-1) = [illegible] Disaccharide [illegible] Trisaccharide .

١- السكريات الثنائية Disaccharide

مثل

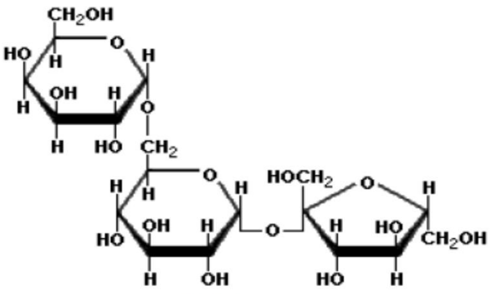
A: السكروز (سكر المائدة) Sucrose

B : المالتوز (سكر الشعير) Maltose

C : اللاكتوز (سكر الحليب) Lactose

٢- السكريات الثلاثية Trisaccharide

[illegible] Raffinose [illegible] α(1,6) [illegible] Melibiose [illegible] α(1,2)



Raffinose

السكريات المتعددة Polysaccharide

[illegible] .

[illegible] :

A : النشأ Starch

[illegible] :

I . الامايلوز Amylose : [illegible] α(1,4) [illegible] .

II : الامايلوبكتين Amylopectin : [illegible]

[illegible] (1,6) [illegible]

[illegible]

B : الكلايكوجين Glycogen

C : السليلوز Cellulose

D : الكايتين Chitin