FIGURE 1

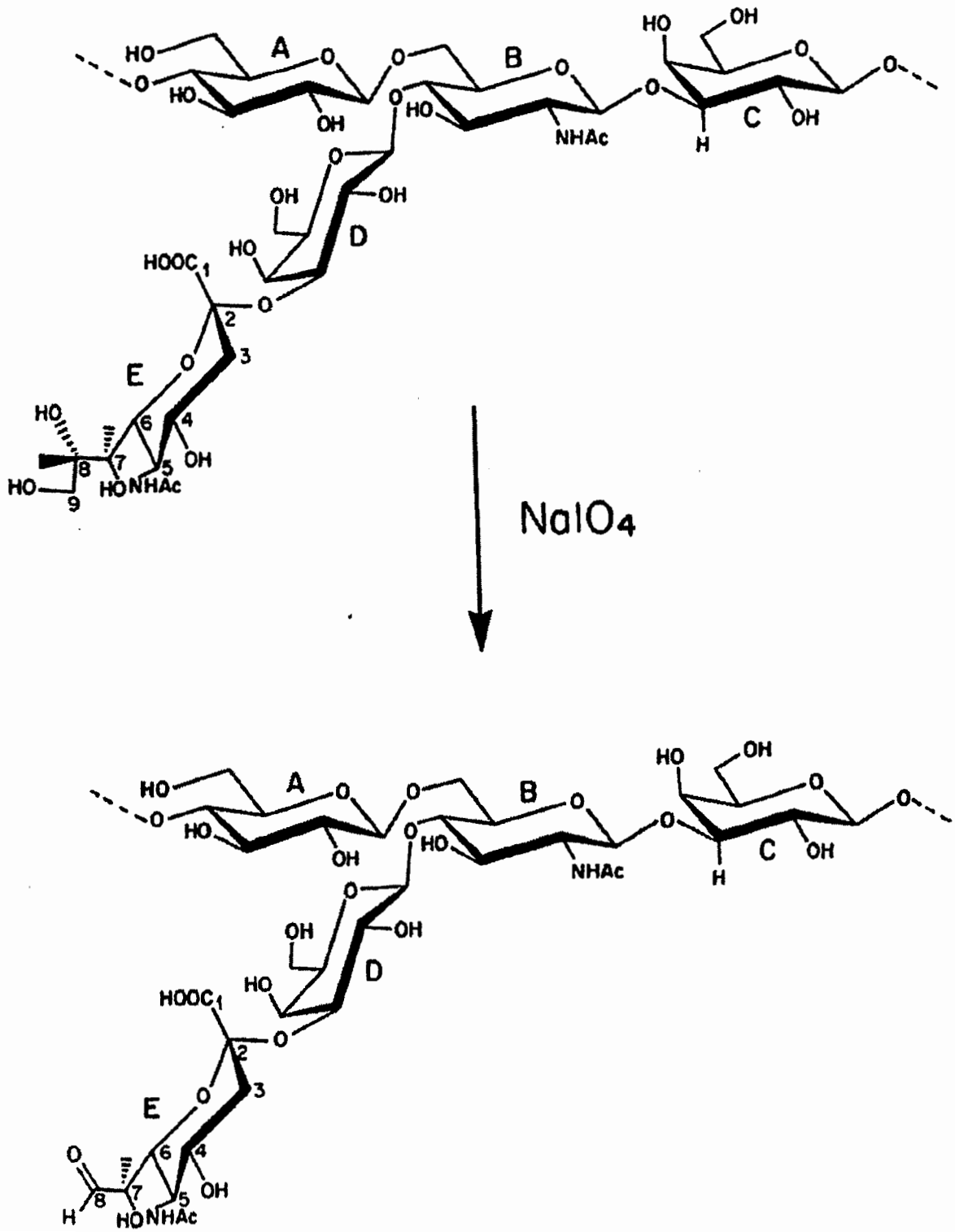


FIGURE 2

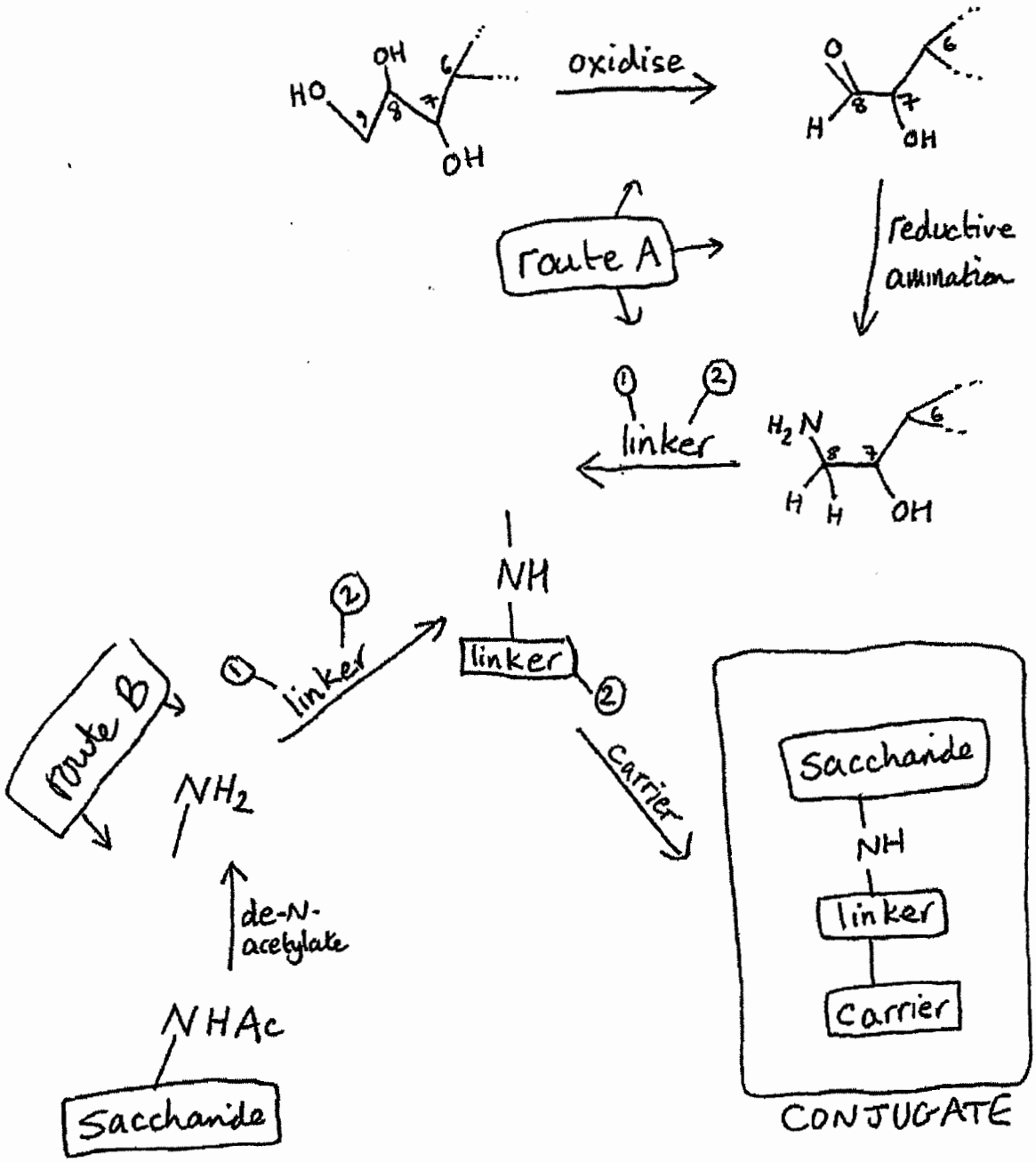

oxidise
route A
reductive amination
linker
route B
de-N-acetylate
carrier
Saccharide
linker
Carrier
CONJUGATE

FIGURE 3

Ia	[→4)-ß-D-Glc*p*-(1→4)-ß-D-Gal*p*-(1→]$_n$ 3 ↑ 1 ß-D-Glc*p*NAc 4 ↑ 1 ß-D-Gal*p* 3 ↑ 2 α-D-Neu*p*NAc
Ib	[→4)-ß-D-Glc*p*-(1→4)-ß-D-Gal*p*-(1→]$_n$ 3 ↑ 1 ß-D-Glc*p*NAc 3 ↑ 1 ß-D-Gal*p* 3 ↑ 2 α-D-Neu*p*NAc
II	[→4)-β-D-Glc*p*NAc-(1→3)-β-D-Gal*p*-(1→4)-β-D-Glc*p*-(1→3)-β-D-Glc*p*-(1→2)-β-D-Gal*p*-(1→]$_n$ 6 3 ↑ ↑ 1 2 β-D-Gal*p* α-D-Neu*p*NAc
III	→4)-β-D-Glc*p*-(1→6)-β-D-Glc*p*NAc-(1→3)-β-D-Gal*p*-(1→ 4 ↑ 1 β-D-Gal*p* 3 ↑ 2 α-D-Neu*p*NAc
V	→4)-α-D-Glc*p*-(1→4)-β-D-Gal*p*-(1→4)-β-D-Glc*p*-(1→ 6 3 ↑ ↑ 1 1 β-D-Glc*p*NAc β-D-Glc*p* 4 ↑ 1 β-D-Gal*p* 3 ↑ 2 α-D-Neu*p*NAc

FIGURE 4

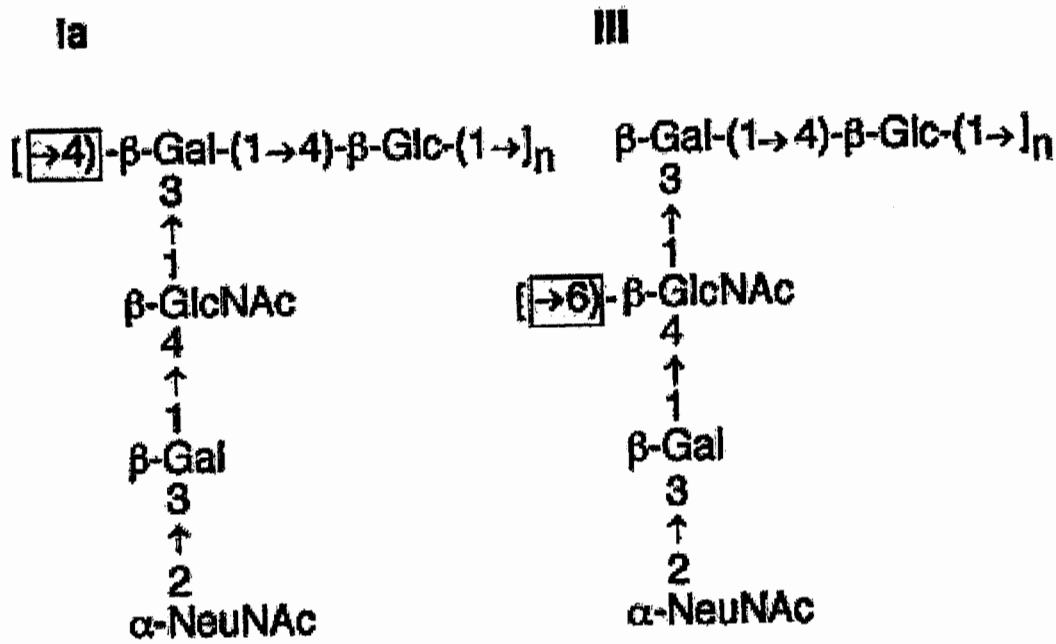


FIGURE 5

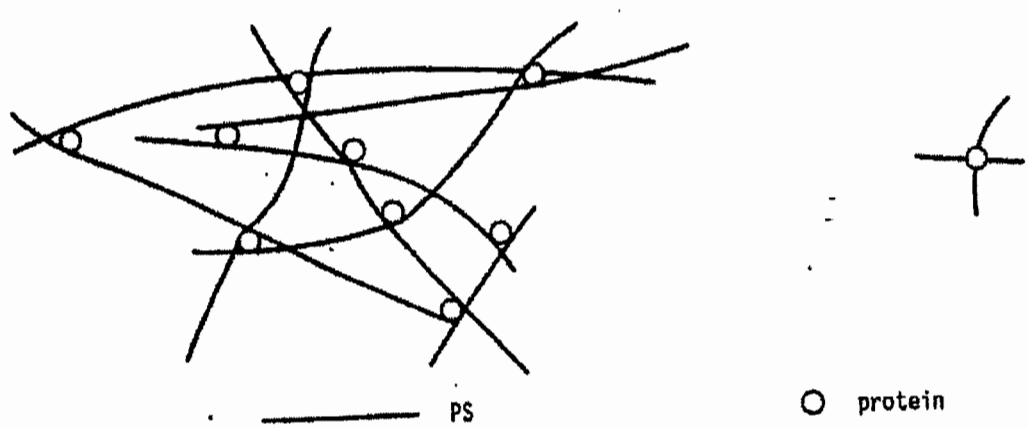


FIGURE 6

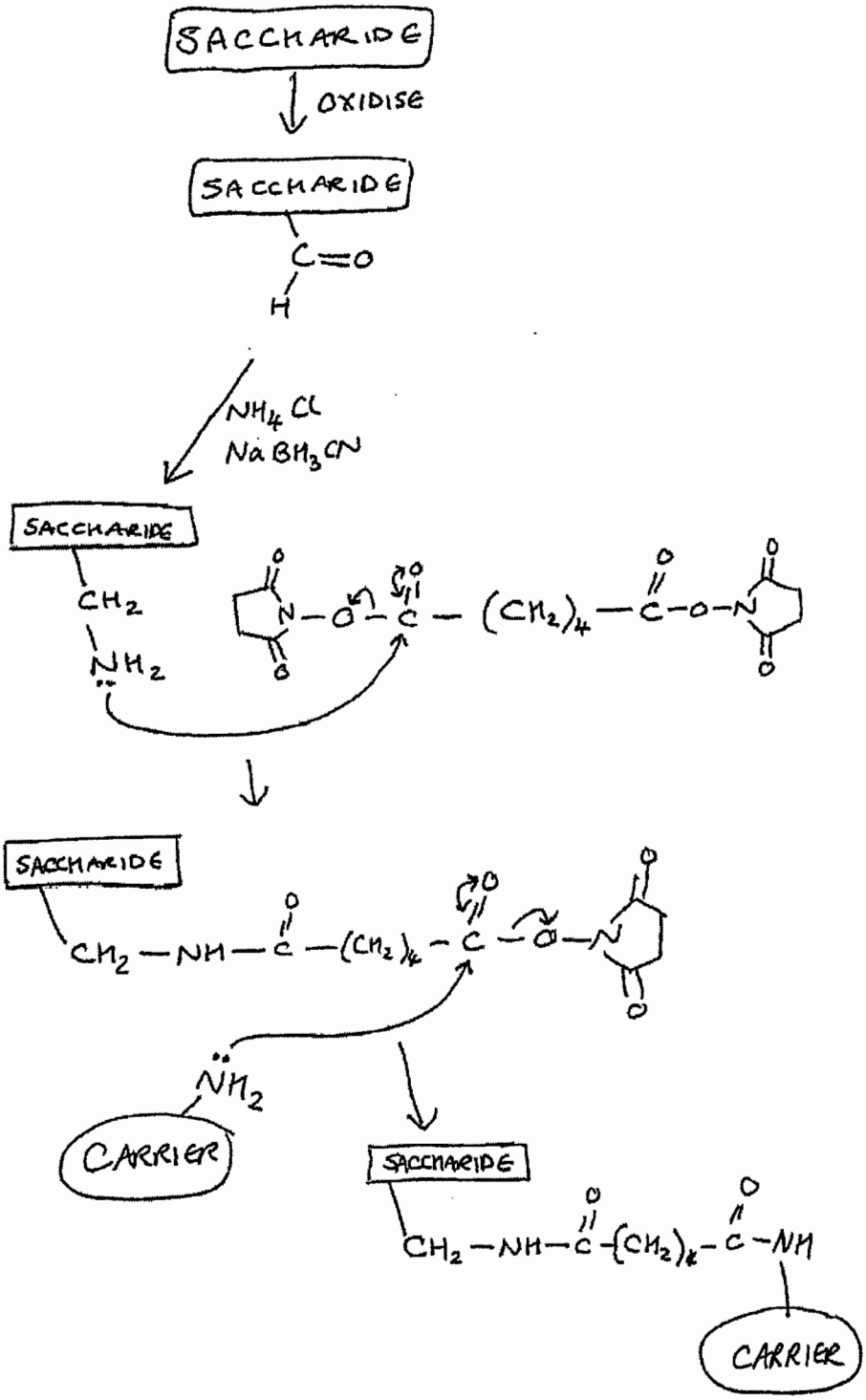

SACCHARIDE
OXIDISE
SACCHARIDE
C=O
H
NH4Cl
NaBH3CN
SACCHARIDE
CH2
NH2
SACCHARIDE
CH2 — NH — C — (CH2)4 — C — O — N
NH2
CARRIER
SACCHARIDE
CH2 — NH — C — (CH2)4 — C — NH
CARRIER

FIGURE 7

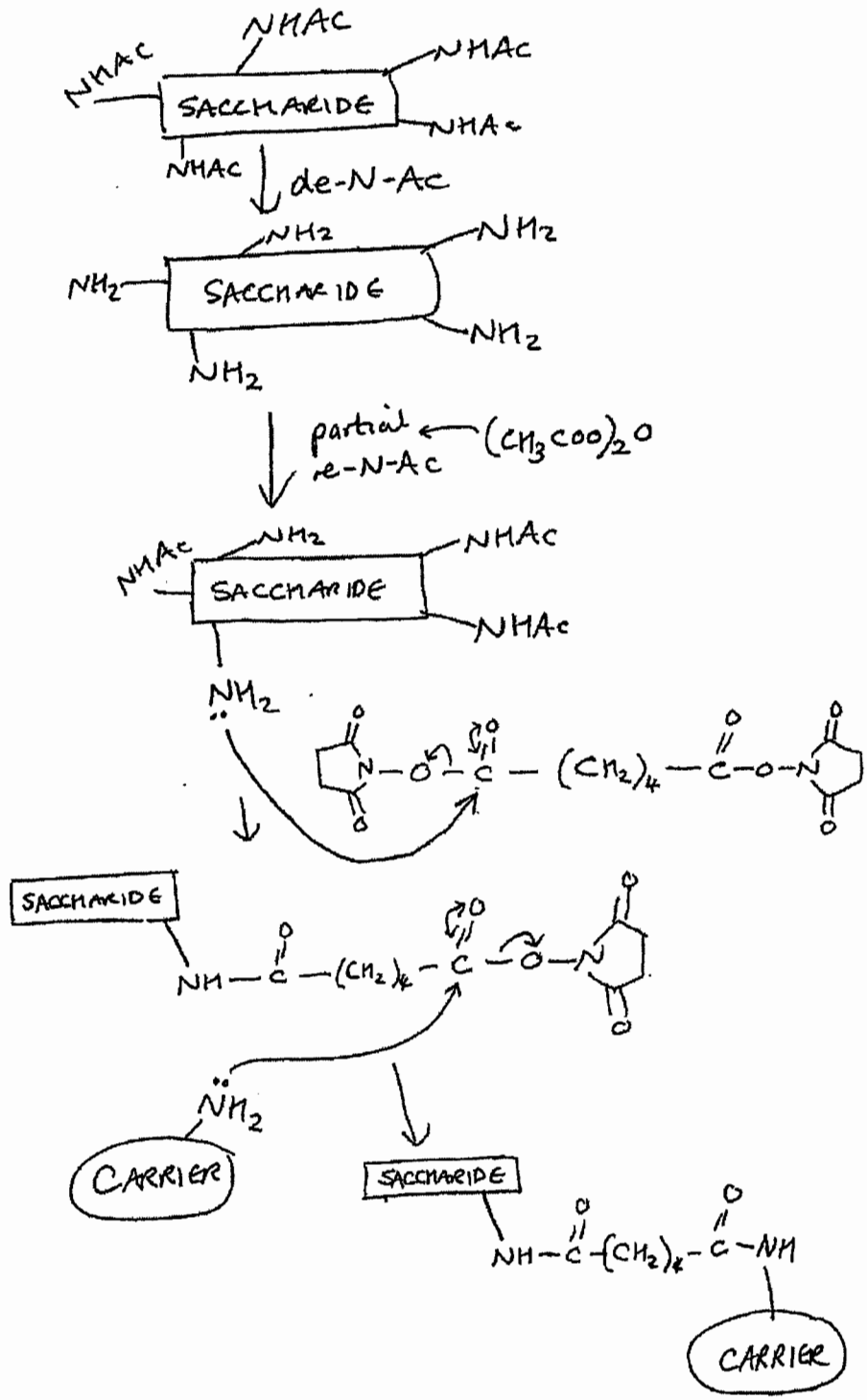

NHAc
NHAc
NHAc
SACCHARIDE
NHAc
NHAc
de-N-Ac
NH2
NH2
NH2
SACCHARIDE
NH2
NH2
partial re-N-Ac
(CH3COO)2O
NHAc
NH2
NHAc
SACCHARIDE
NHAc
NH2
(CH2)4
SACCHARIDE
NH
(CH2)4
NH2
CARRIER
SACCHARIDE
NH
(CH2)4
NH
CARRIER

FIGURE 8

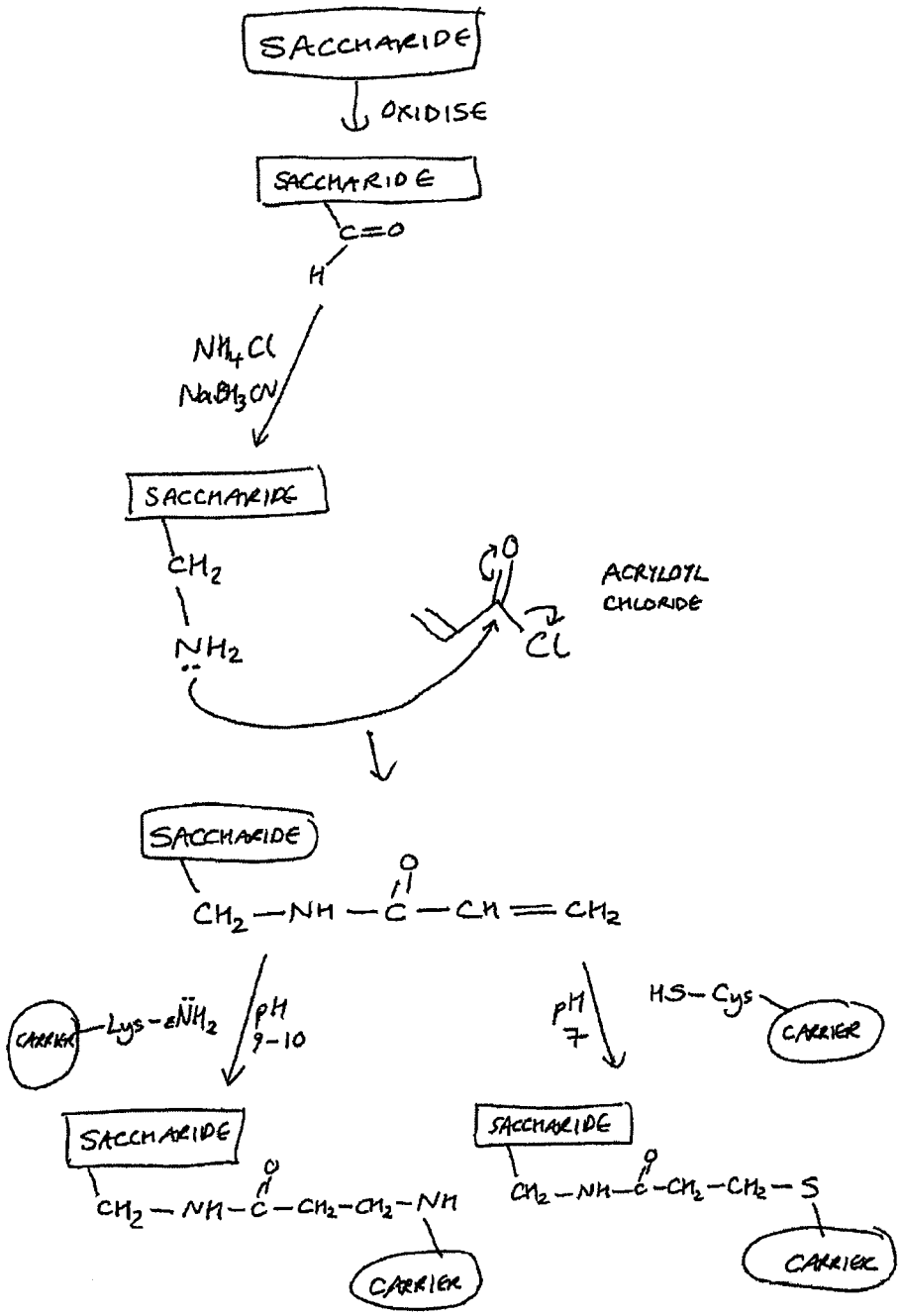
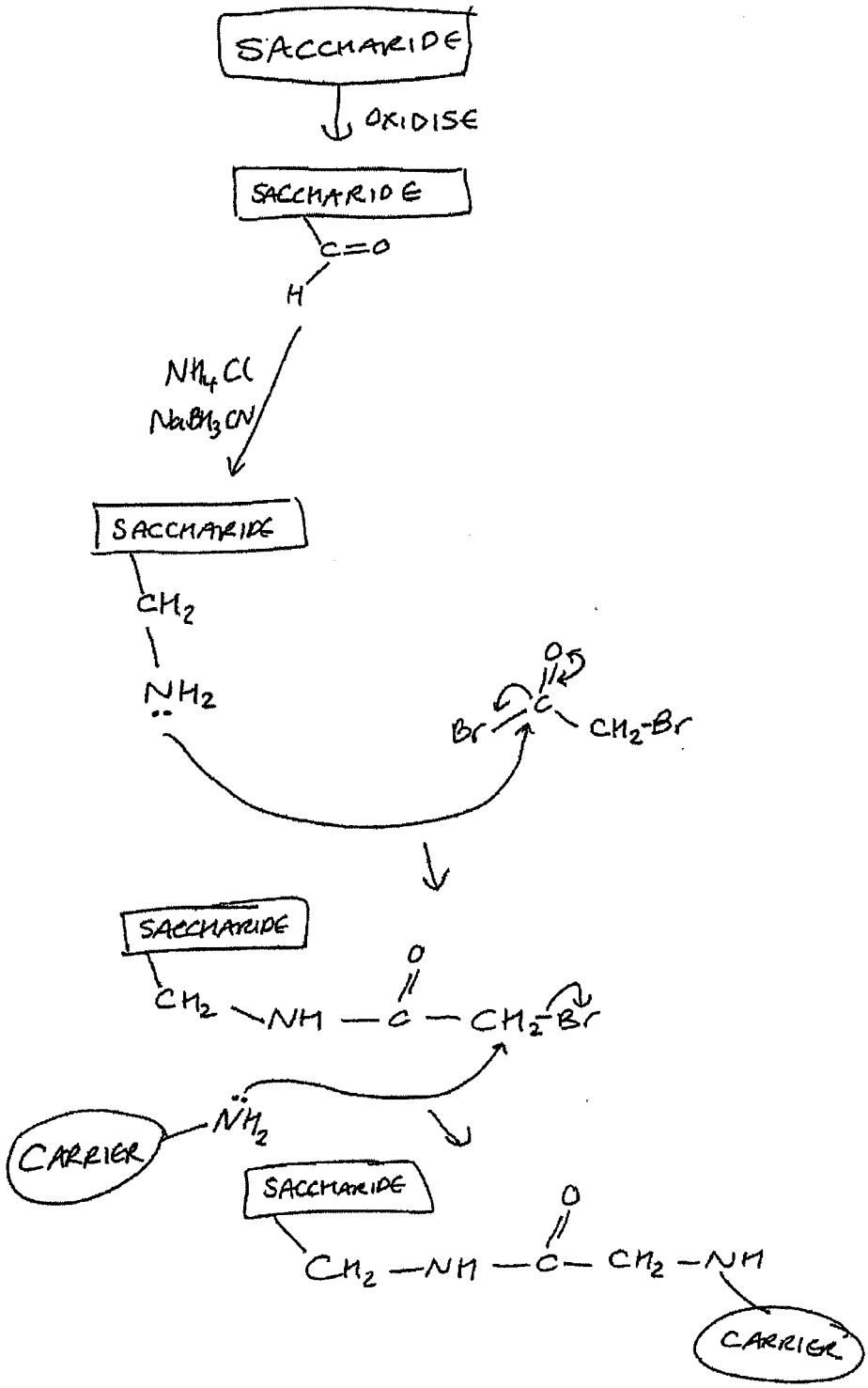

SACCHARIDE
OXIDISE
SACCHARIDE
C=O
H
NH4Cl
NaBH3CN
SACCHARIDE
CH2
NH2
ACRYLOYL CHLORIDE
SACCHARIDE
CH2—NH—C—CH=CH2
CARRIER—Lys-εNH2
pH 9-10
pH 7
HS—Cys
CARRIER
SACCHARIDE
CH2—NH—C—CH2—CH2—NH
CARRIER
SACCHARIDE
CH2—NH—C—CH2—CH2—S
CARRIER

FIGURE 9


SACCHARIDE
OXIDISE
SACCHARIDE
C=O
H
NH4Cl
NaBH3CN
SACCHARIDE
CH2
NH2
O
C
Br
CH2-Br
SACCHARIDE
CH2 —NH — C — CH2-Br
O
NH2
CARRIER
SACCHARIDE
CH2 —NH — C — CH2 —NH
O
CARRIER