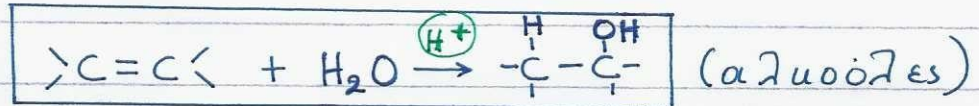
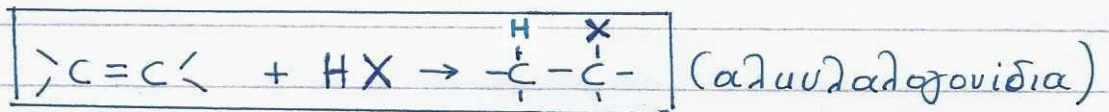
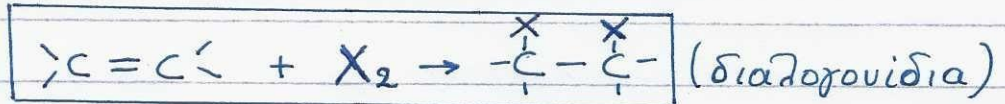
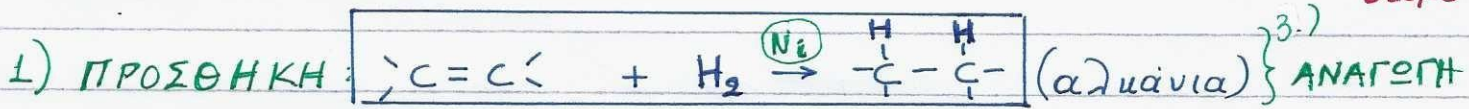


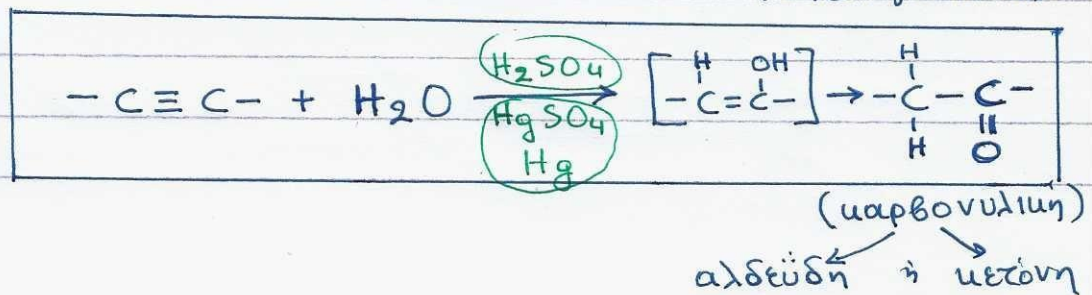
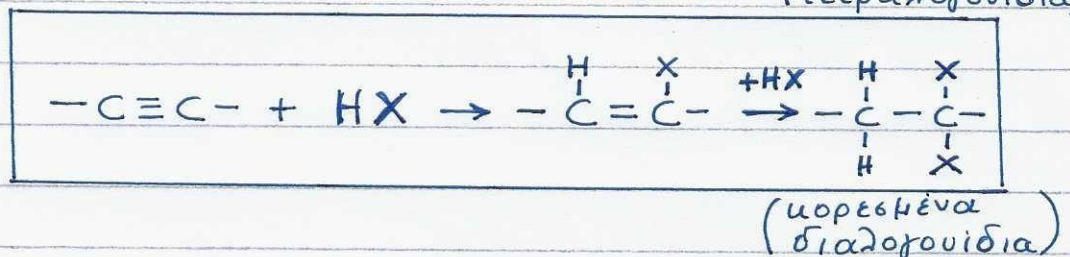
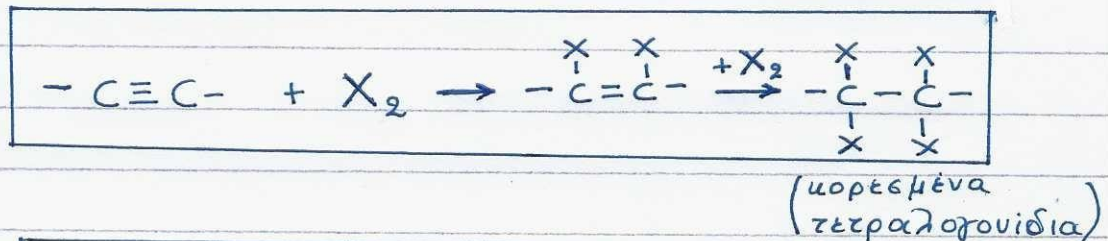
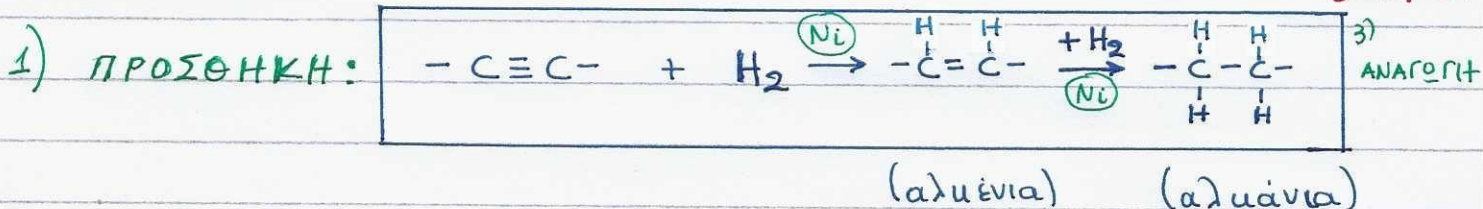
ΑΝΤΙΔΡΑΣΕΙΣ ΑΝΑ ΟΜΟΛΟΓΗ ΣΕΙΡΑ

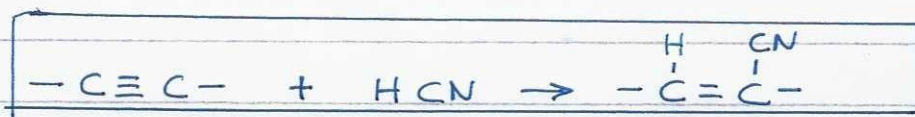
ΑΛΚΑΝΙΑ: Σχετικά αδρανείς ενώσεις

ΑΛΚΕΝΙΑ: $>C=C<$ ή γενικά αιόρεστες ενώσεις με διπλό δεσμό

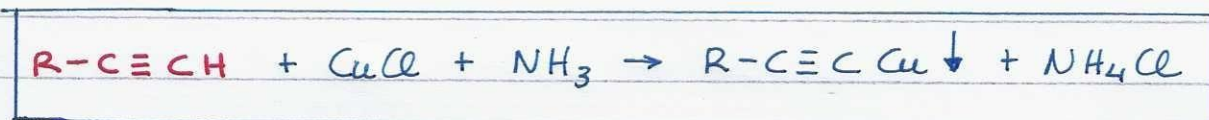
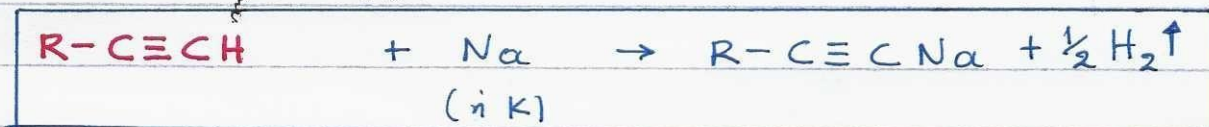


ΑΛΚΙΝΙΑ: $-C \equiv C-$ ή γενικά αιόρεστες ενώσεις με τριπλό δεσμό



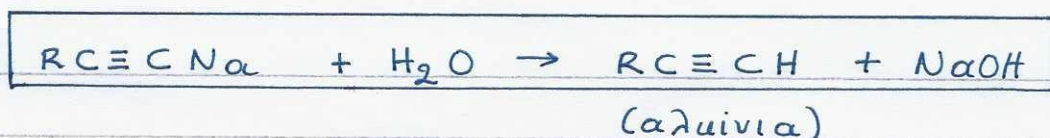


2) **ΑΝΤΙΔΡΑΣΕΙΣ ΟΞΕΩΝ** : μόνο τα αλκίνια του τύπου : $\text{R}-\text{C}\equiv\text{CH}$
δίδουν υδρογόνο

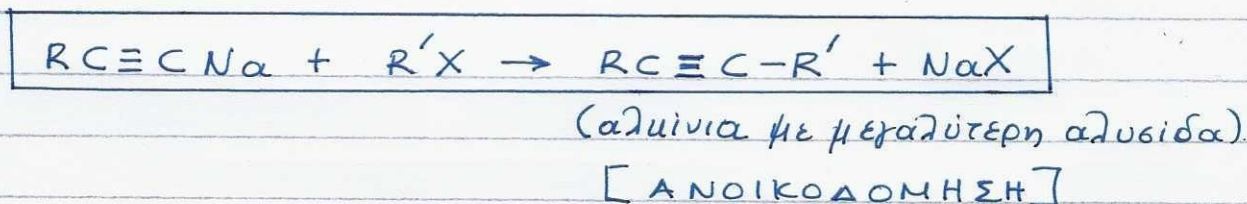


ΑΛΑΤΑ ΑΛΚΙΝΙΩΝ (αιετυλενιδια) : $\text{R}-\text{C}\equiv\text{CNa}$
 (ή $\text{R}-\text{C}\equiv\text{CK}$)

1) **ΑΝΤΙΔΡΑΣΕΙΣ ΒΑΣΕΩΝ** :

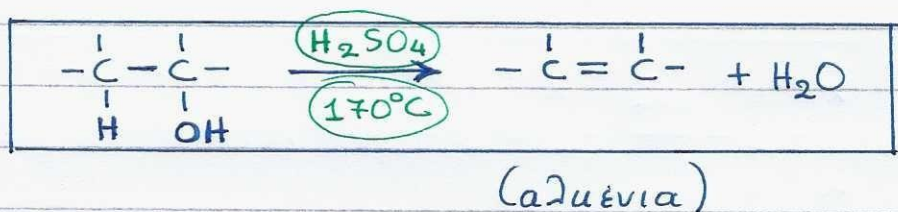


2) **ΥΠΟΚΑΤΑΣΤΑΣΗ** :

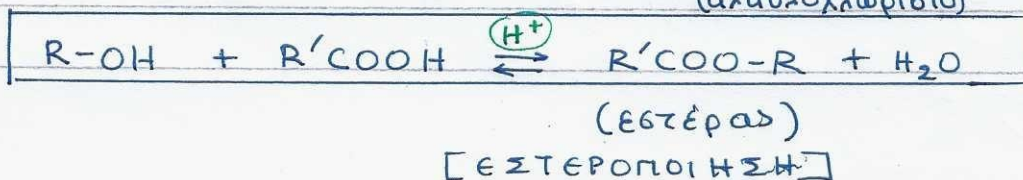
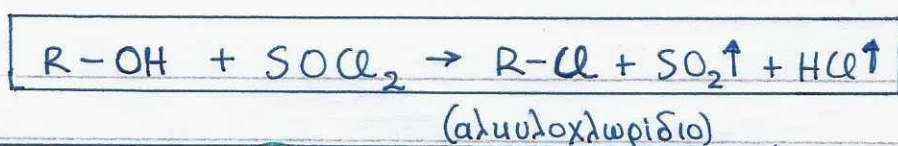


ΑΛΚΟΟΛΕΣ : $\text{R}-\text{OH}$

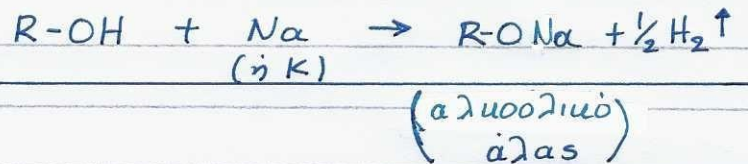
1) **ΑΠΟΣΠΑΣΗ** :
 (αφυδάτωση)



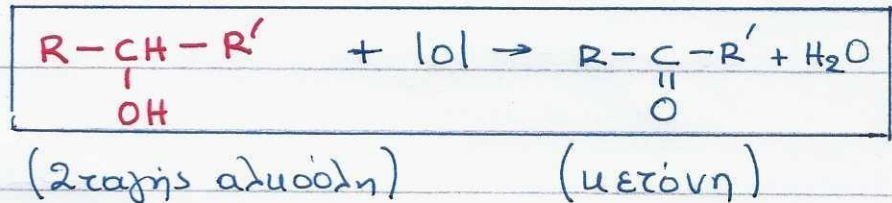
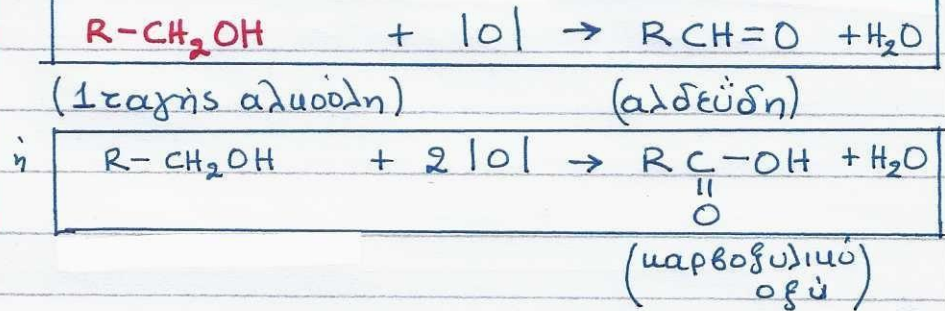
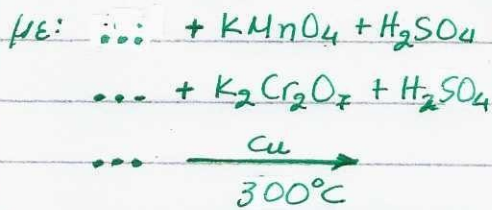
2) **ΥΠΟΚΑΤΑΣΤΑΣΗ** :



3) ΑΝΤΙΔΡΑΣΕΙΣ ΟΞΕΩΝ :

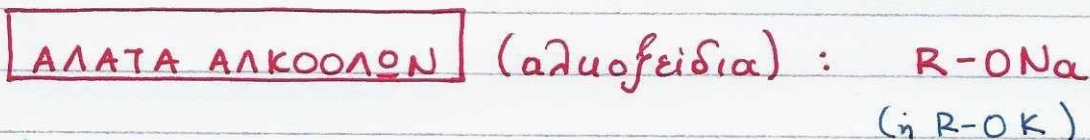
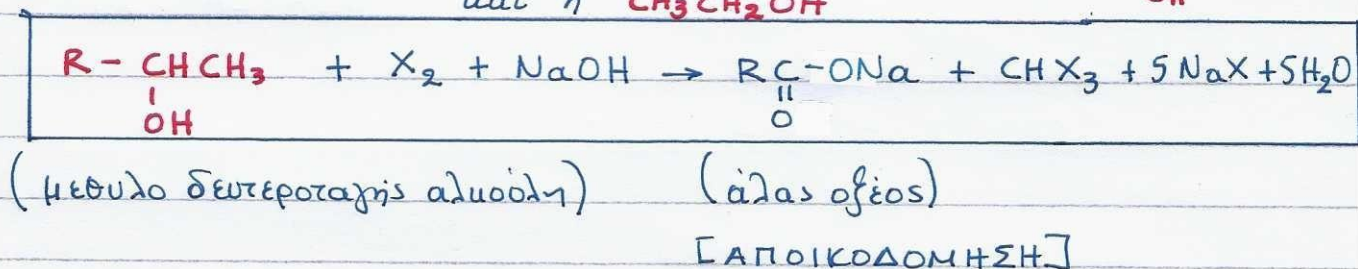


4) ΟΞΕΙΔΩΣΗ :

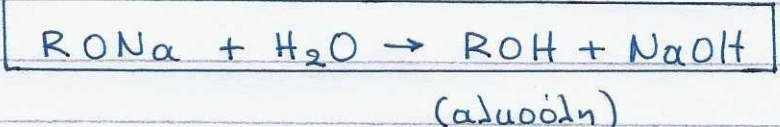


* Οι 3ταχείς αλκοόλες δεν οξειδώνονται

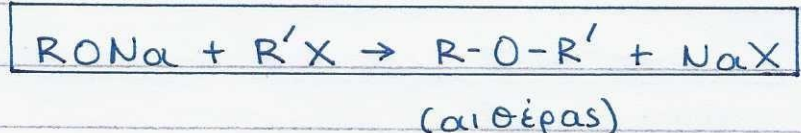
4) ΑΛΟΓΟΝΟΦΟΡΜΙΚΗ : μόνο οι αλκοόλες του τύπου: $R-\underset{\underset{OH}{|}}{CH}CH_3$ και η CH_3CH_2OH



1) ΑΝΤΙΔΡΑΣΕΙΣ ΒΑΣΕΩΝ :



2) ΥΠΟΚΑΤΑΣΤΑΣΗ :



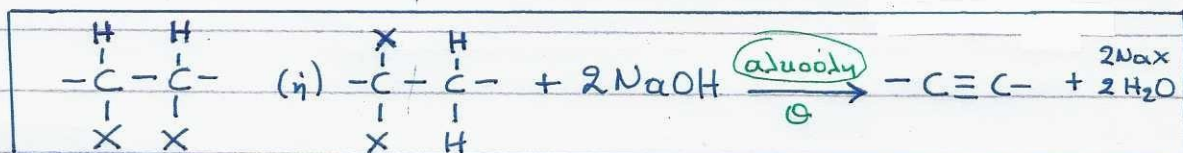
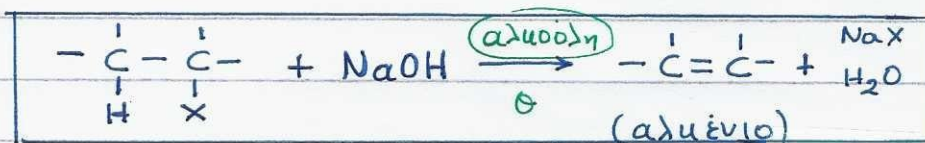
ΑΛΚΥΛΑΛΟΓΟΝΙΔΙΑ :

$R-X$ ($x: I, Br, Cl, F$)

ή γενικά (πολυ) αλογονίδια

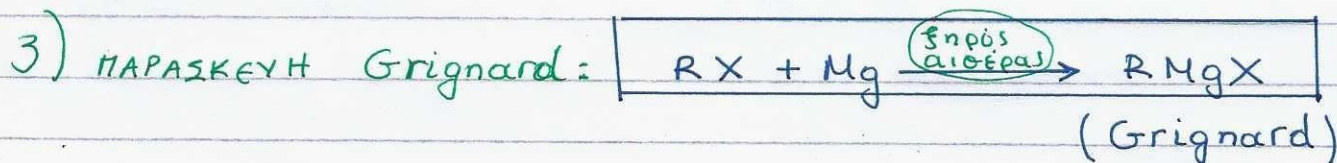
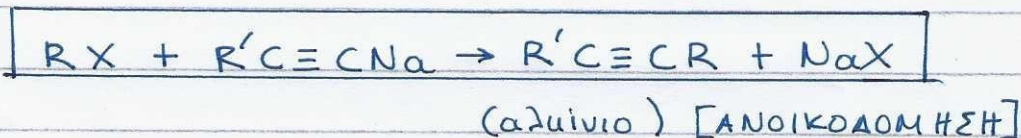
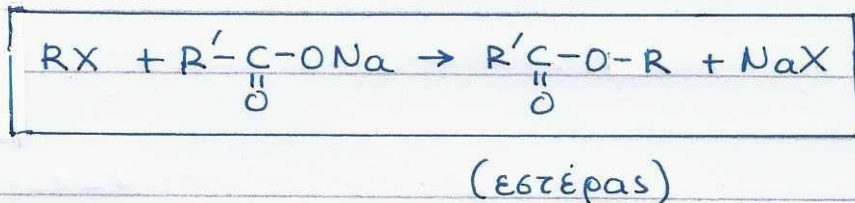
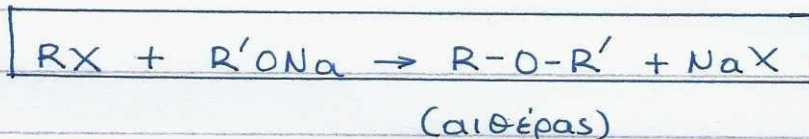
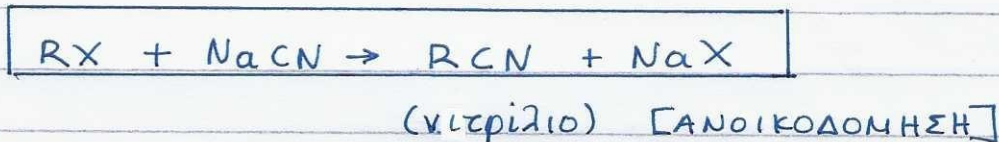
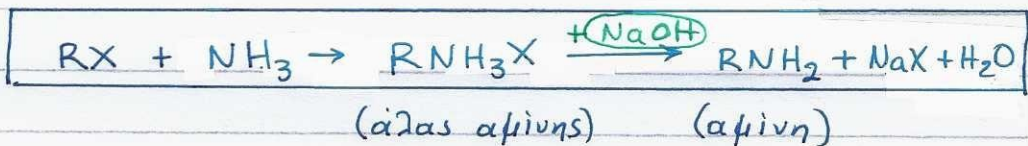
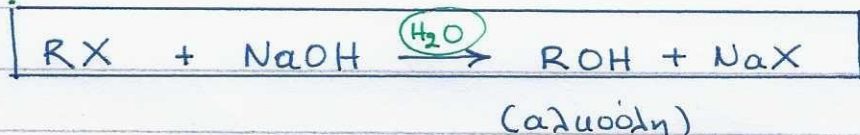
1) ΑΠΟΣΠΑΣΗ :

(αφυδραλογόνωση)



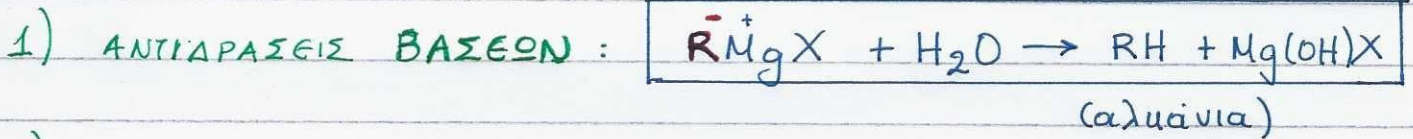
(αλκίνιο)

2) ΥΠΟΚΑΤΑΣΤΑΣΗ :

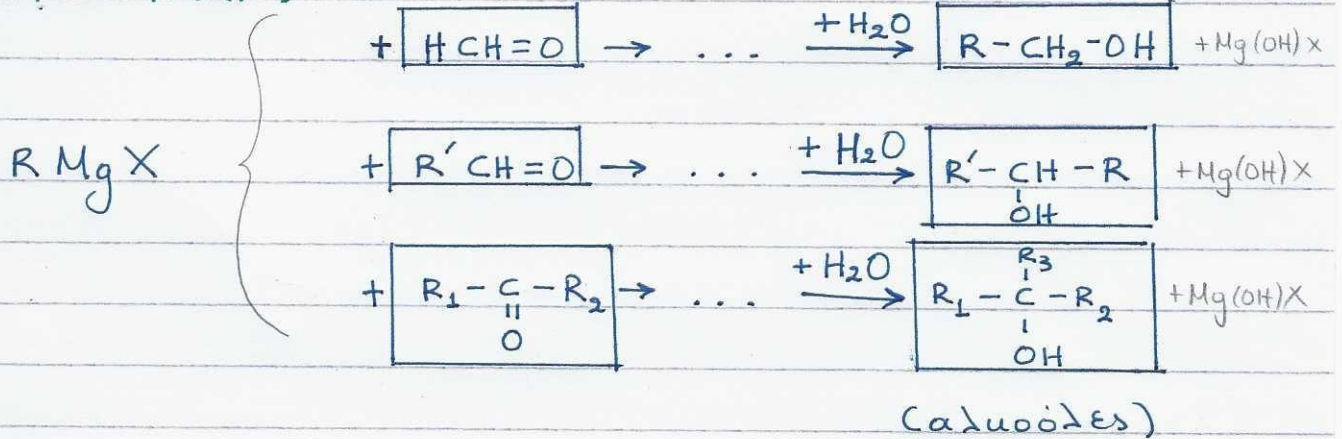


ΑΝΤΙΔΡΑΣΤΗΡΙΑ

Grignard



2) ΠΡΟΣΘΗΚΗ:



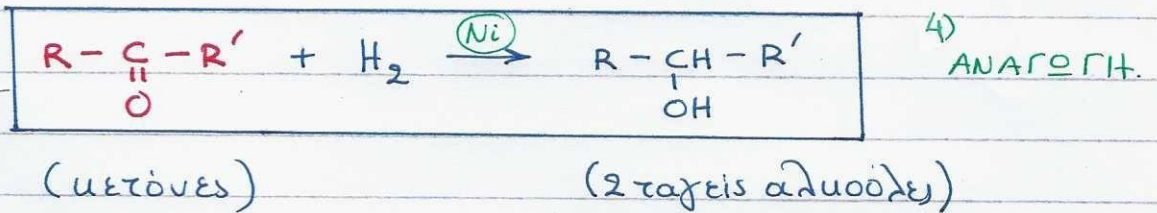
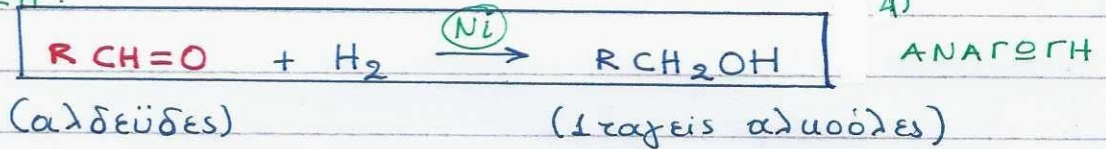
ΚΑΡΒΟΝΥΛΙΚΕΣ ΕΝΩΣΕΙΣ.

↗ ΑΛΔΕΥΔΕΙ: $RCH=O$

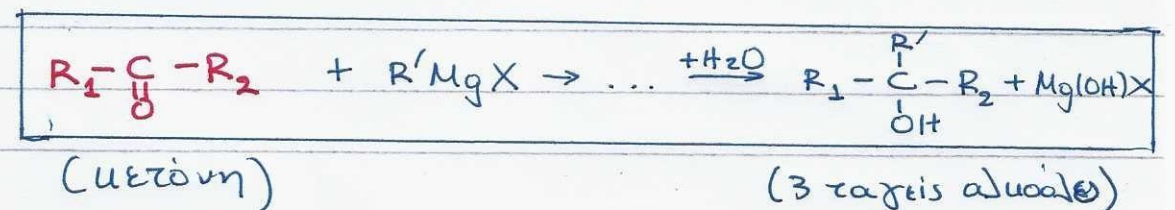
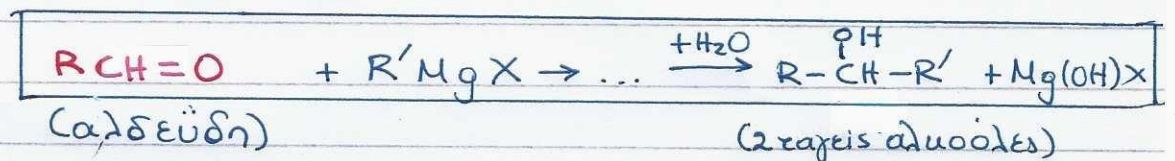
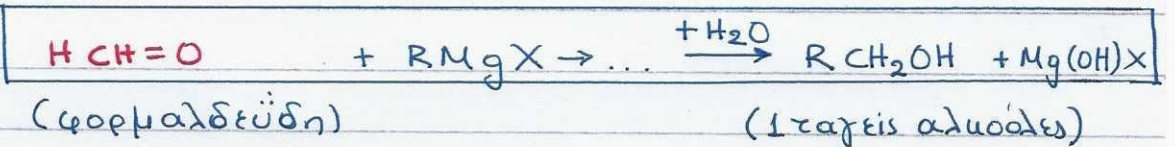
↘ ΚΕΤΟΝΕΣ: $R-\overset{\overset{O}{\parallel}}{C}-R'$

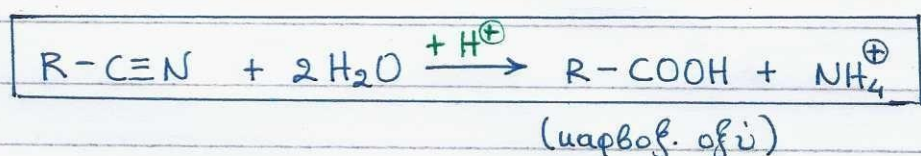
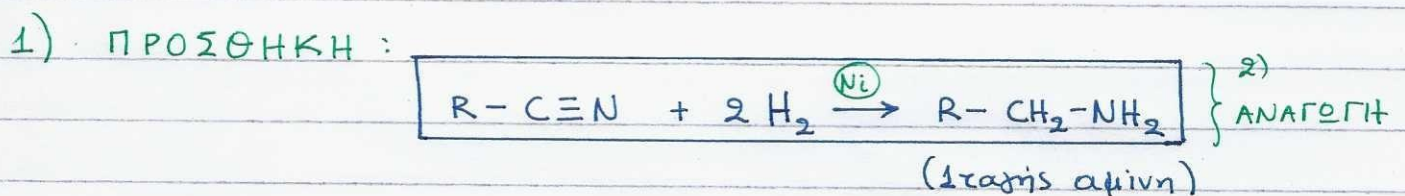
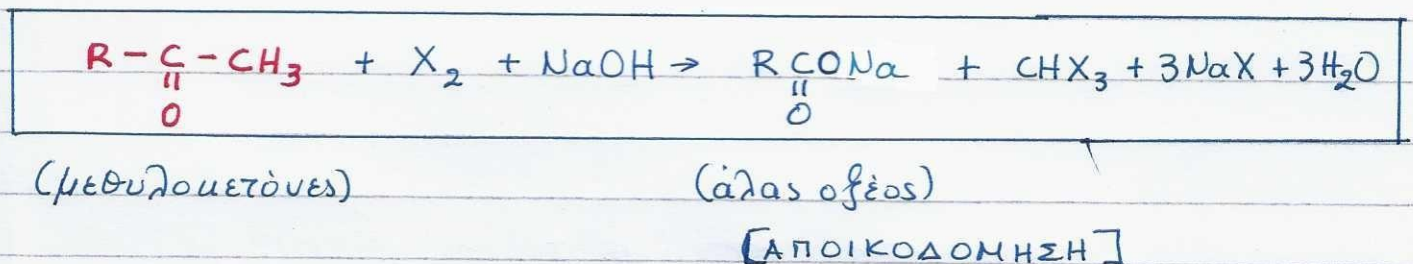
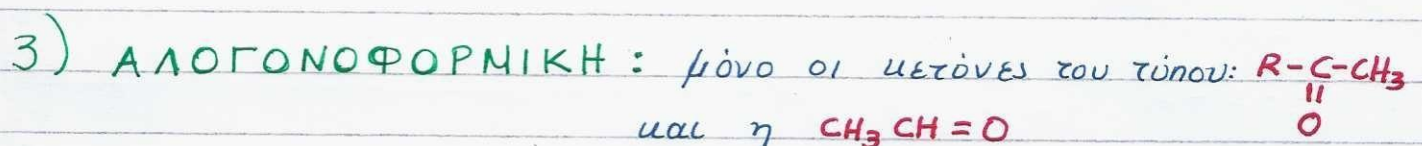
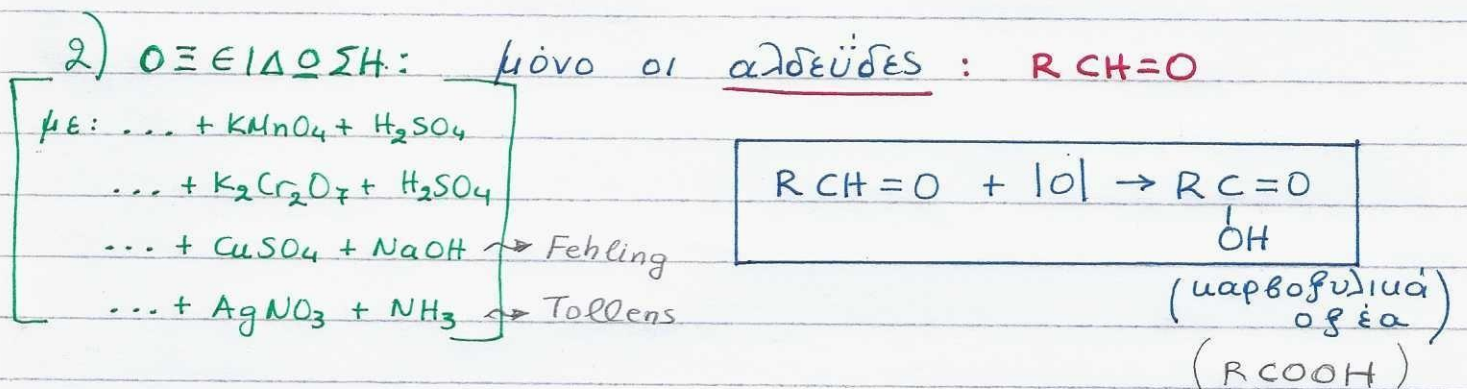
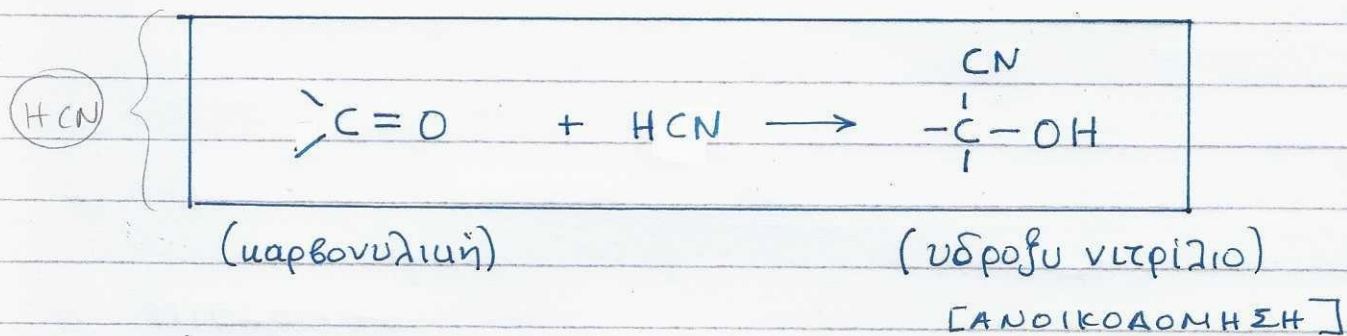
1) ΠΡΟΣΘΗΚΗ:

(H_2)



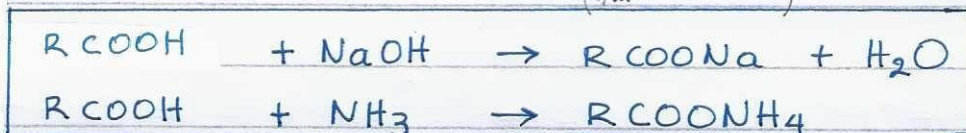
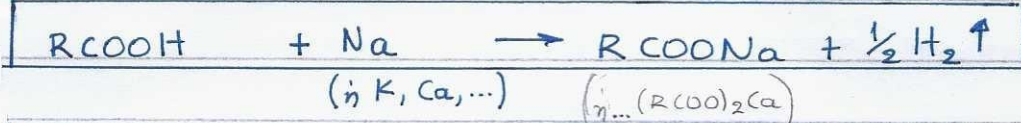
($RMgX$)



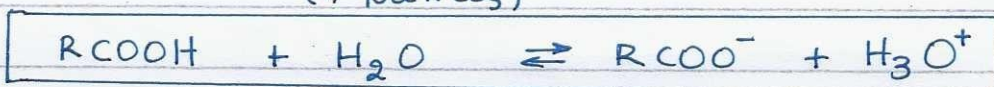
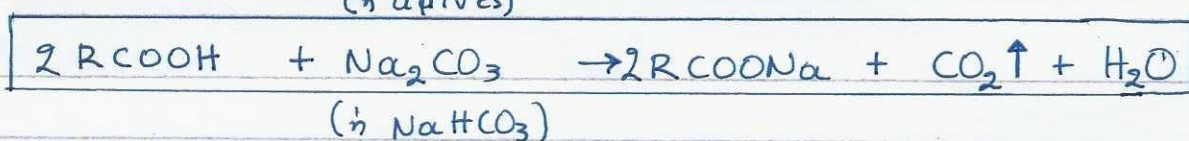


ΚΑΡΒΟΞΥΛΙΚΑ ΟΞΕΑ : $R-\overset{\overset{O}{\parallel}}{C}-OH$ (ή $RCOOH$)

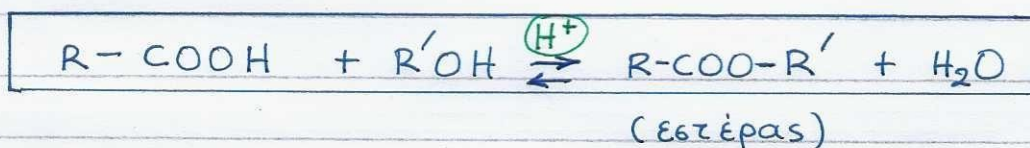
1) ΑΝΤΙΔΡΑΣΕΙΣ ΟΞΕΩΝ:



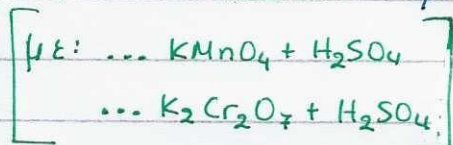
(ή αμίνες)



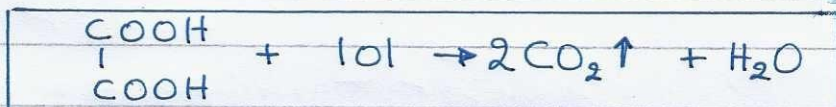
2) ΥΠΟΚΑΤΑΣΤΑΣΗ: (εστεροποίηση)



3) ΟΞΕΙΔΩΣΗ: μόνο τα: **μυρμικιώ οξύ** ($HCOOH$)

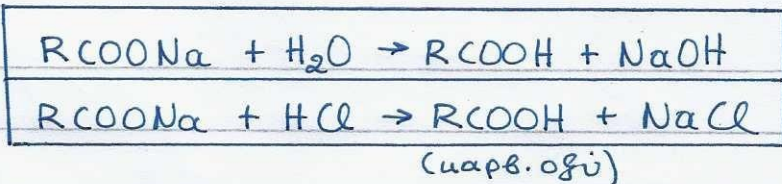


και **οξαλικό οξύ** ($\begin{smallmatrix} COOH \\ | \\ COOH \end{smallmatrix}$)

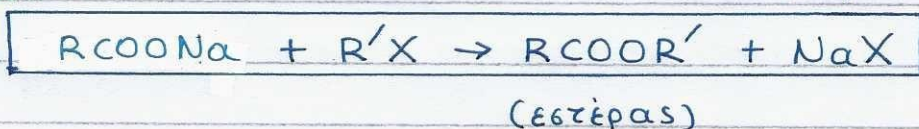


ΑΛΑΤΑ ΚΑΡΒΟΞΥΛΙΚΩΝ ΟΞΕΩΝ : $RCOONa$

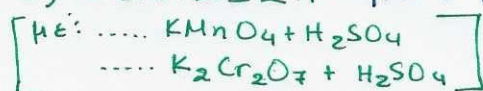
1) ΑΝΤΙΔΡΑΣΕΙΣ ΒΑΣΕΩΝ:



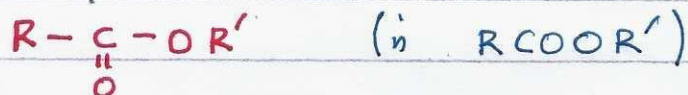
2) ΥΠΟΚΑΤΑΣΤΑΣΗ:



3) ΟΞΕΙΔΩΣΗ: μόνο τα αλατά των:

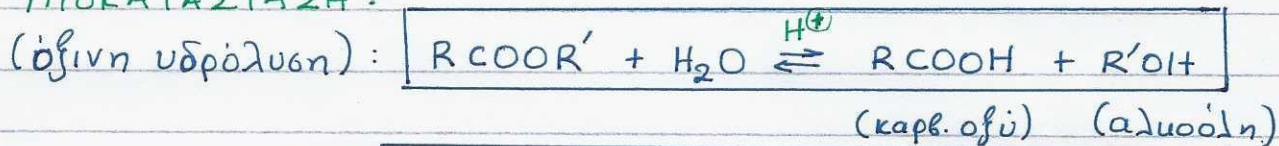


ΕΣΤΕΡΕΣ :

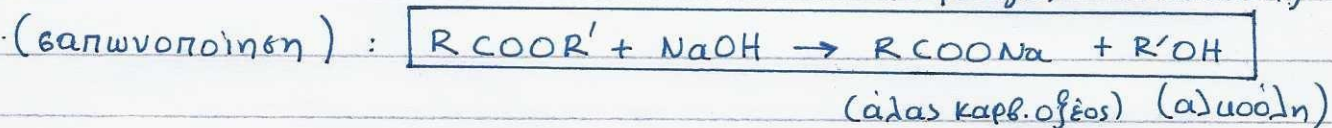


1) ΥΠΟΚΑΤΑΣΤΑΣΗ :

(όξινη υδρόλυση) :



(βαρυνοποίηση) :

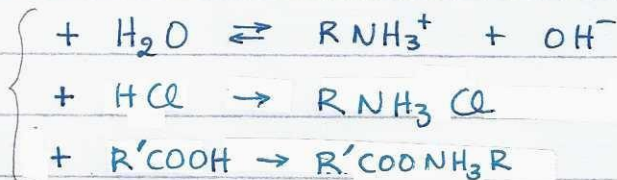


AMINES :

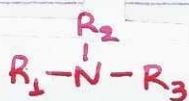
1) ΑΝΤΙΔΡΑΣΕΙΣ ΒΑΣΕΩΝ :



(1 ταχείς)



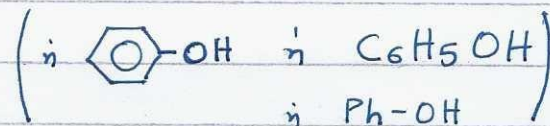
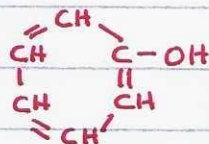
(2 ταχείς)



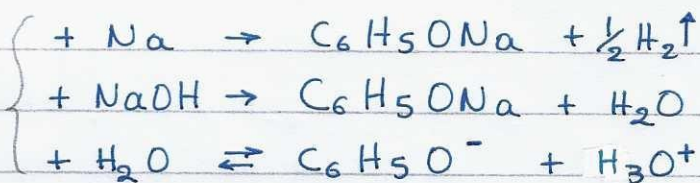
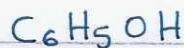
(3 ταχείς)

ομοίως

ΦΑΙΝΟΛΕΣ :



1) ΑΝΤΙΔΡΑΣΕΙΣ ΟΞΕΩΝ :



ΦΑΙΝΟΛΙΚΑ ΑΛΑΤΑ :



1) ΑΝΤΙΔΡΑΣΕΙΣ ΒΑΣΕΩΝ :

