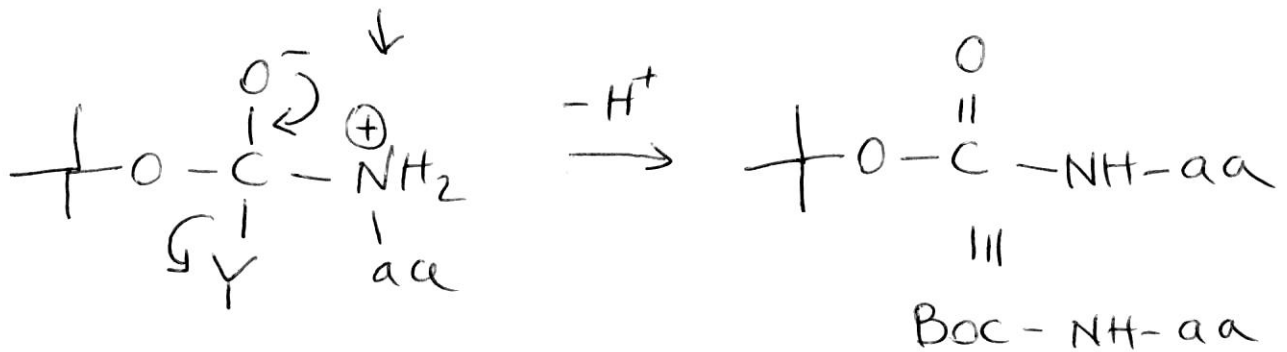
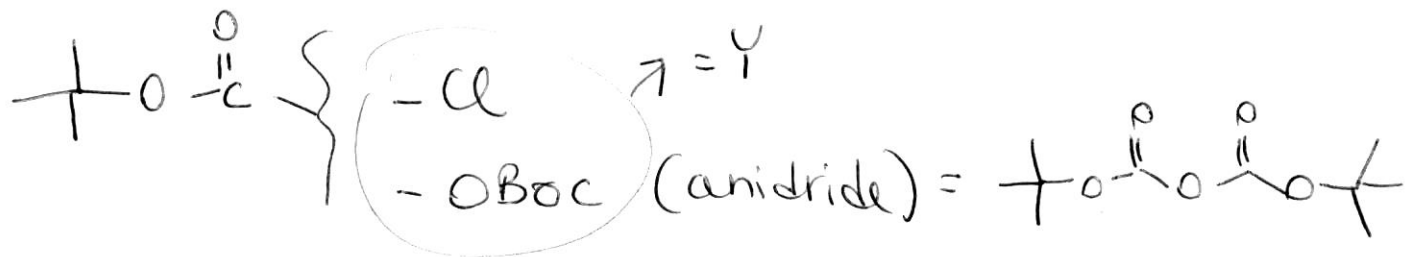


PROTEZIONI GRUPPO $R-NH_2$ PER SINTESI PEPTIDICA: CARBAMMATI cioè ESTERI dell'ACIDO CARBONICO CHE DECARBOSSILA;

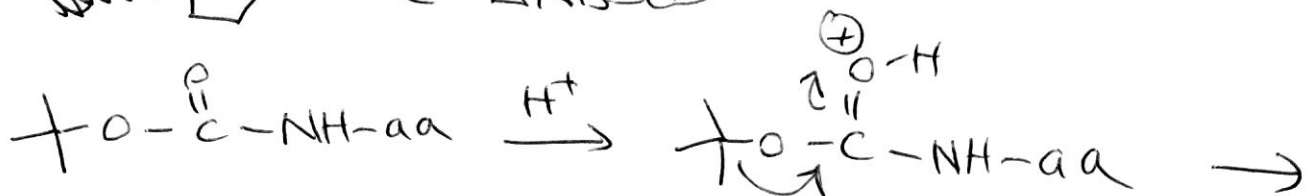
- ① Boc
- ② Cbz
- ③ Fmoc.

① Boc = t-Butil Ossi Carbonil

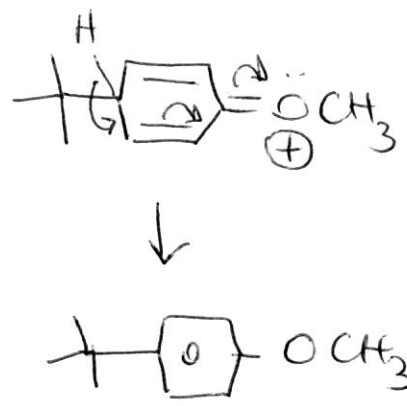
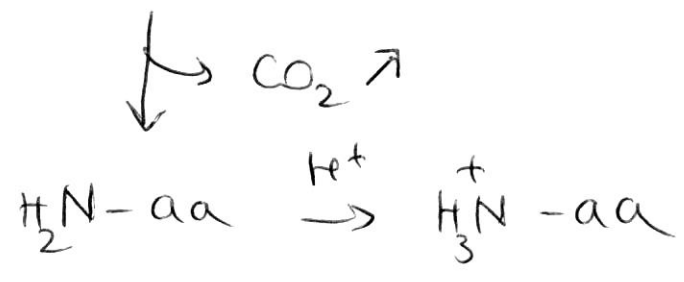
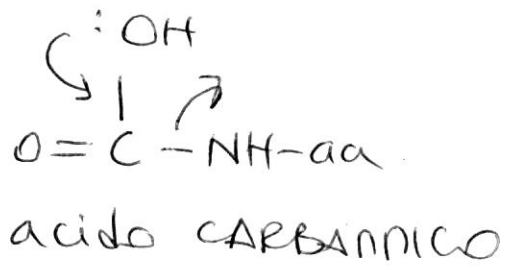
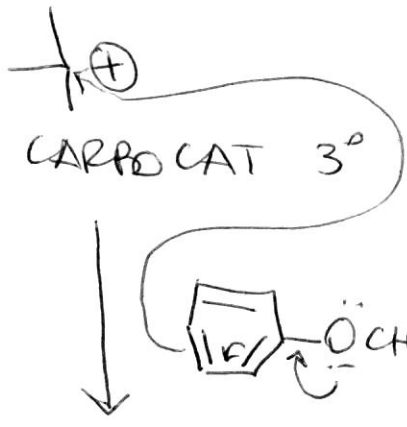


DEPROTEZIONE ACIDA + SCAVENGERS CARBOCATIONI!

TFA = $F_3C-C(=O)OH$ ACIDO TRIFLUOROACETICO

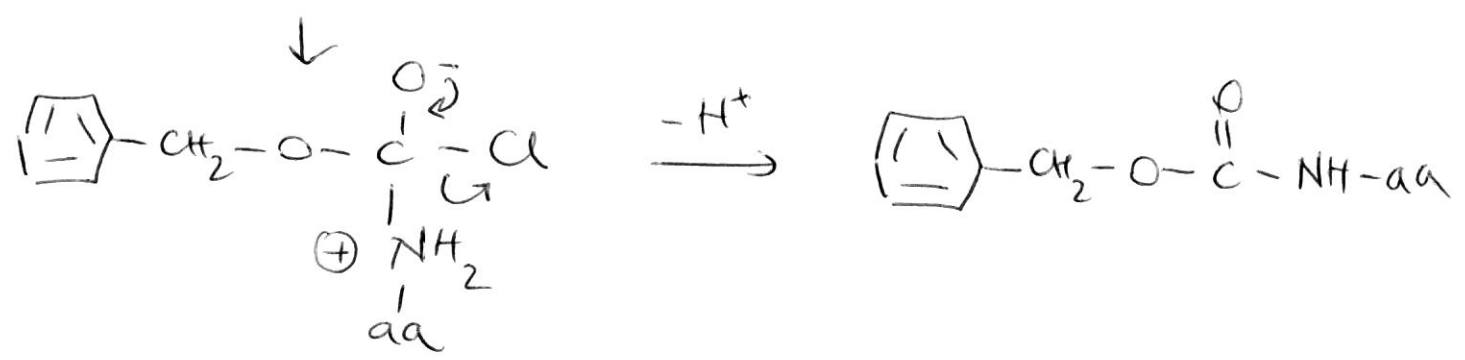
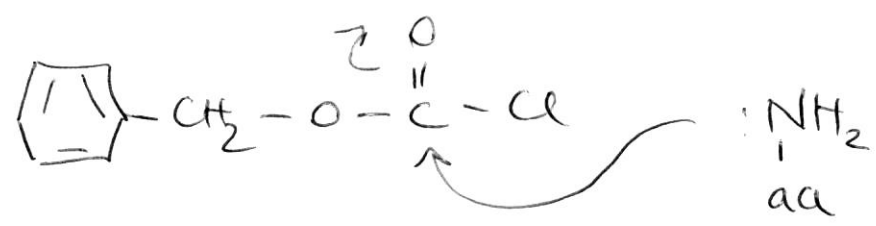


2



ANISOLE SERVE
ALTRIMENTI: $\text{Nu}^- \rightarrow \text{C}^+$
 Nu^- per es. RNH_2

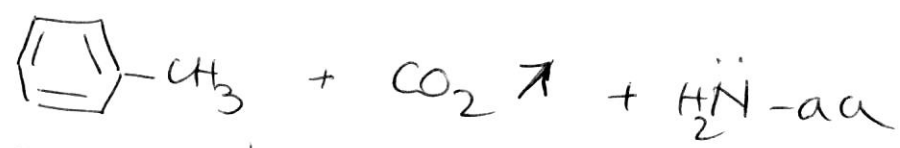
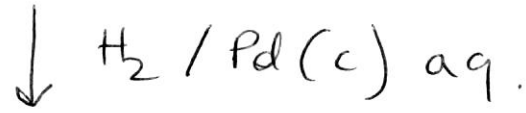
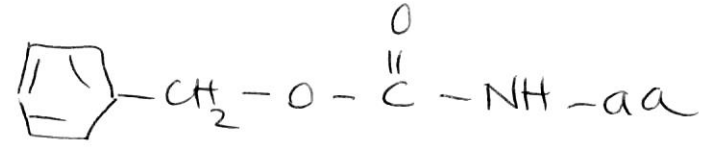
2 Cbz. (Z) = Ben Zil ossi Carbonil



DEPROTEZIONE: $\text{H}_2/\text{Pd}(\text{C})$ aq.

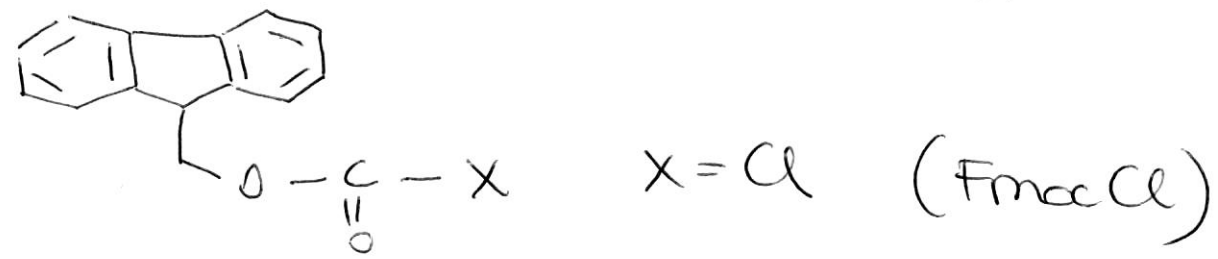
INSTABILE IN ACIDO

3

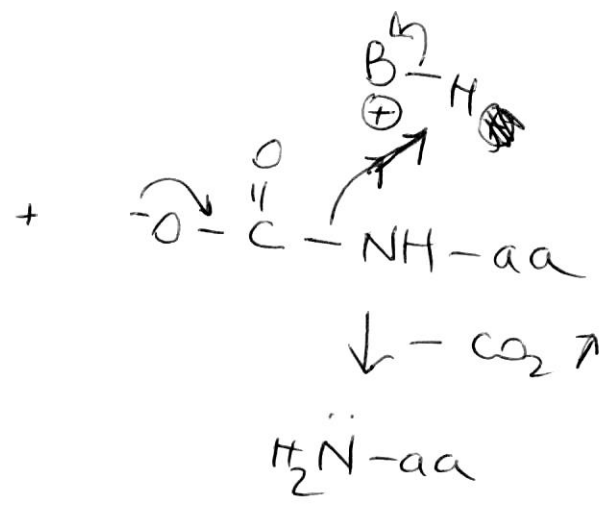
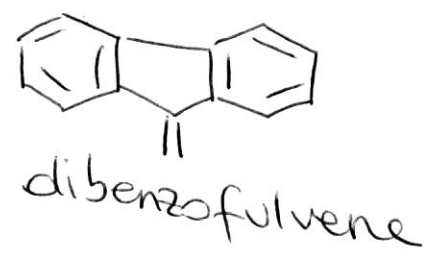
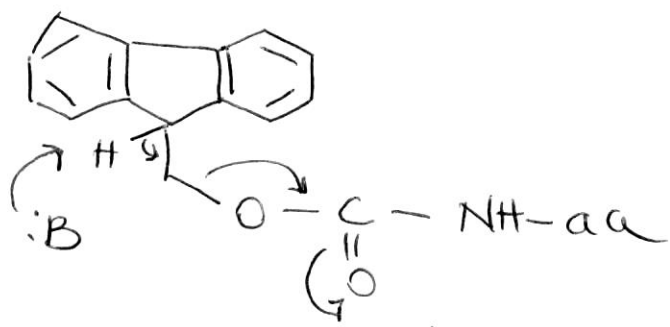


toluene
evapora a Δ

③ Fmoc = Fluorenil Metil Ossicarbonil



Stesso meccanismo degli altri ma
DEPROTEZ. in CONDIZ. BASICHE (stabile in ACIDO);



come base: PIPERIDINA



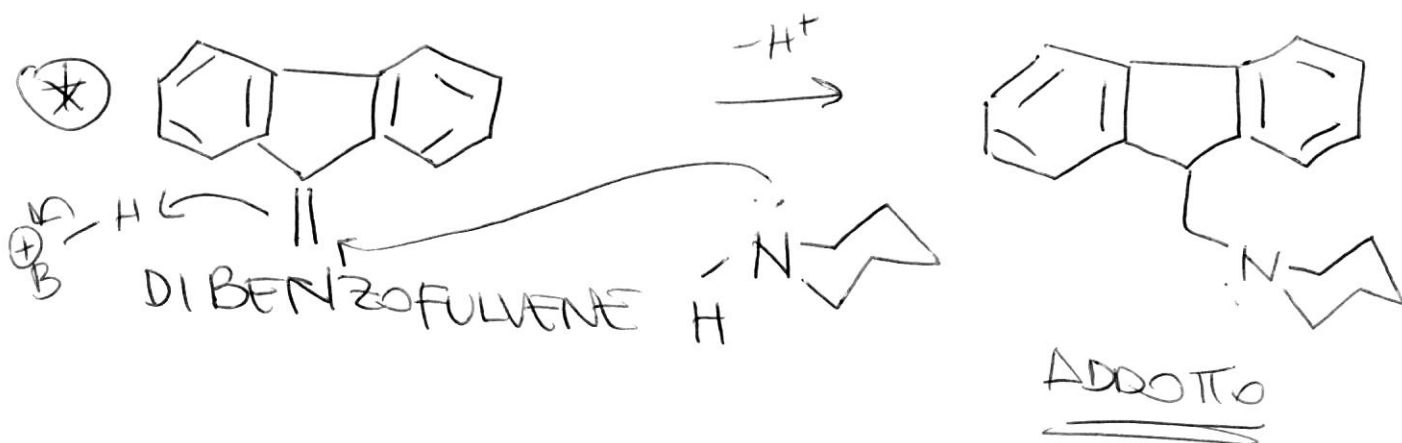
QUINDI HO GRUPPI PROTETTIVI ORTOGONALI:

(cioè tolgo selettivamente a seconda delle condiz.)

Boc → ACIDO (TFA + anisolo)

Cbz → H_2 / Pd/C ap.

Fmoc → BASICO (C1CCNCC1)



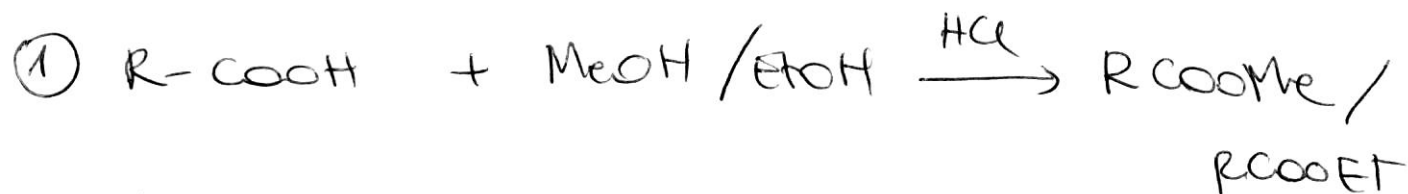
GRUPPI PROTETTIVI COOH:

5

① Me/ET ESTERI

② Benzil esteri

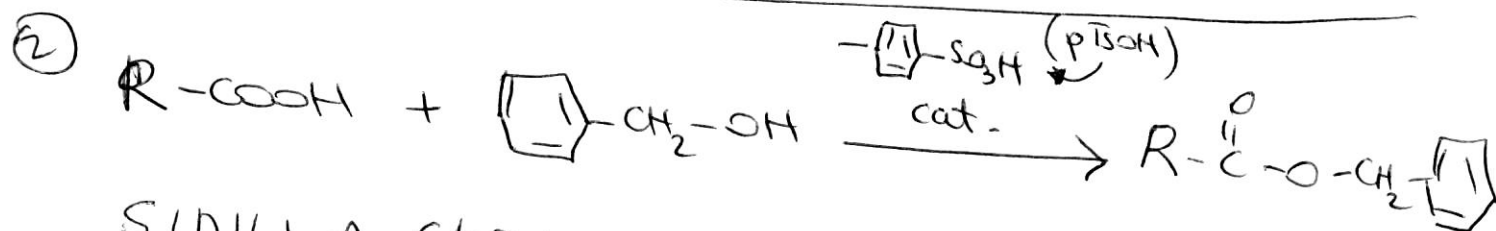
③ t-butil esteri



* STABILI A CONDIZ. ACIDE (TFA)

* STABILI VERSO $H_2 / Pd(C)$

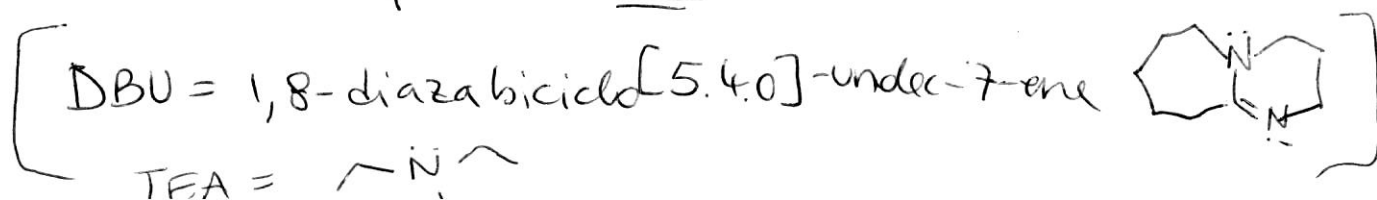
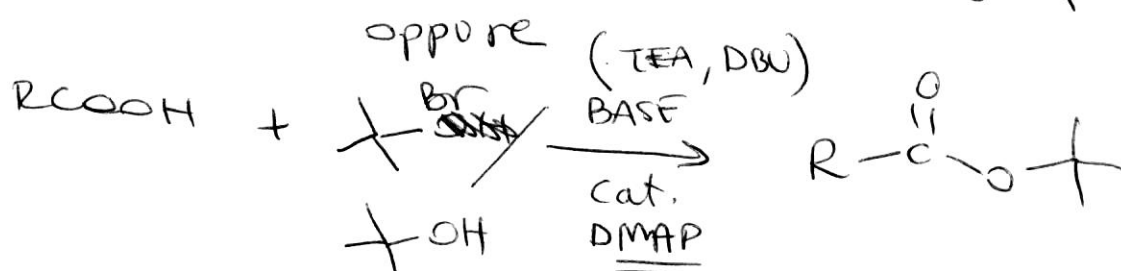
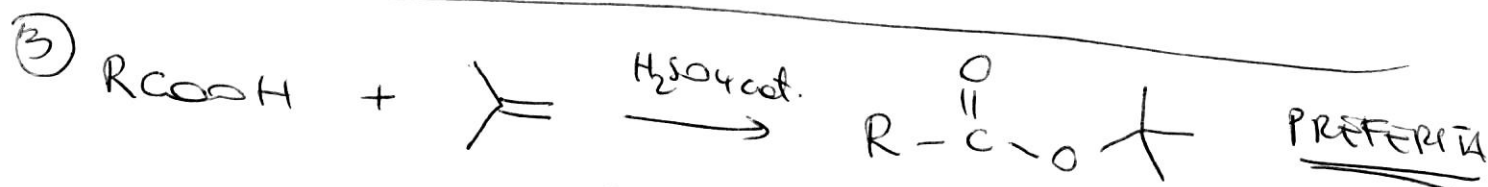
* MOLTO STABILI (di solito si mettono per tenerli nel prodotto)



SIMILI A CH_2 :

* TOLGO CON $H_2 / Pd(C)$

* PARZIALM. INSTABILI IN ACIDO



6

