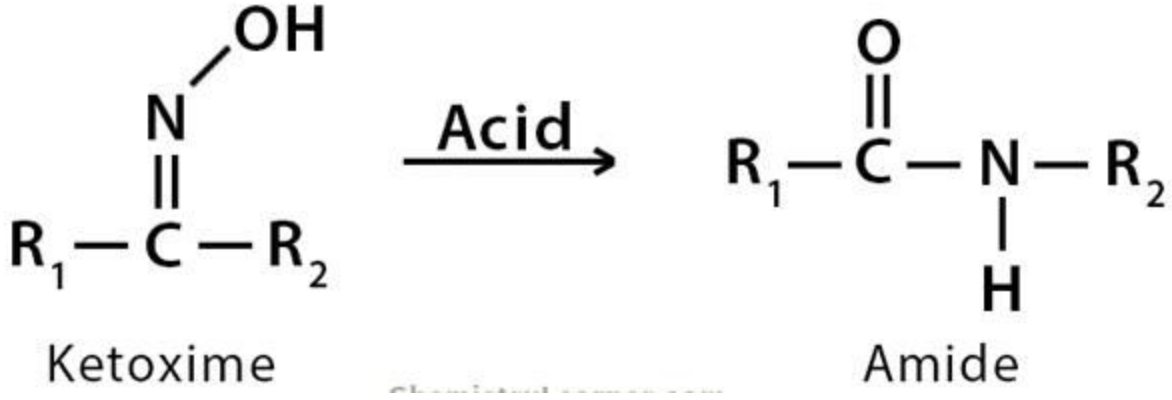
DEPTH OF BIOLOGY

BECKMANN REARRANGEMENT

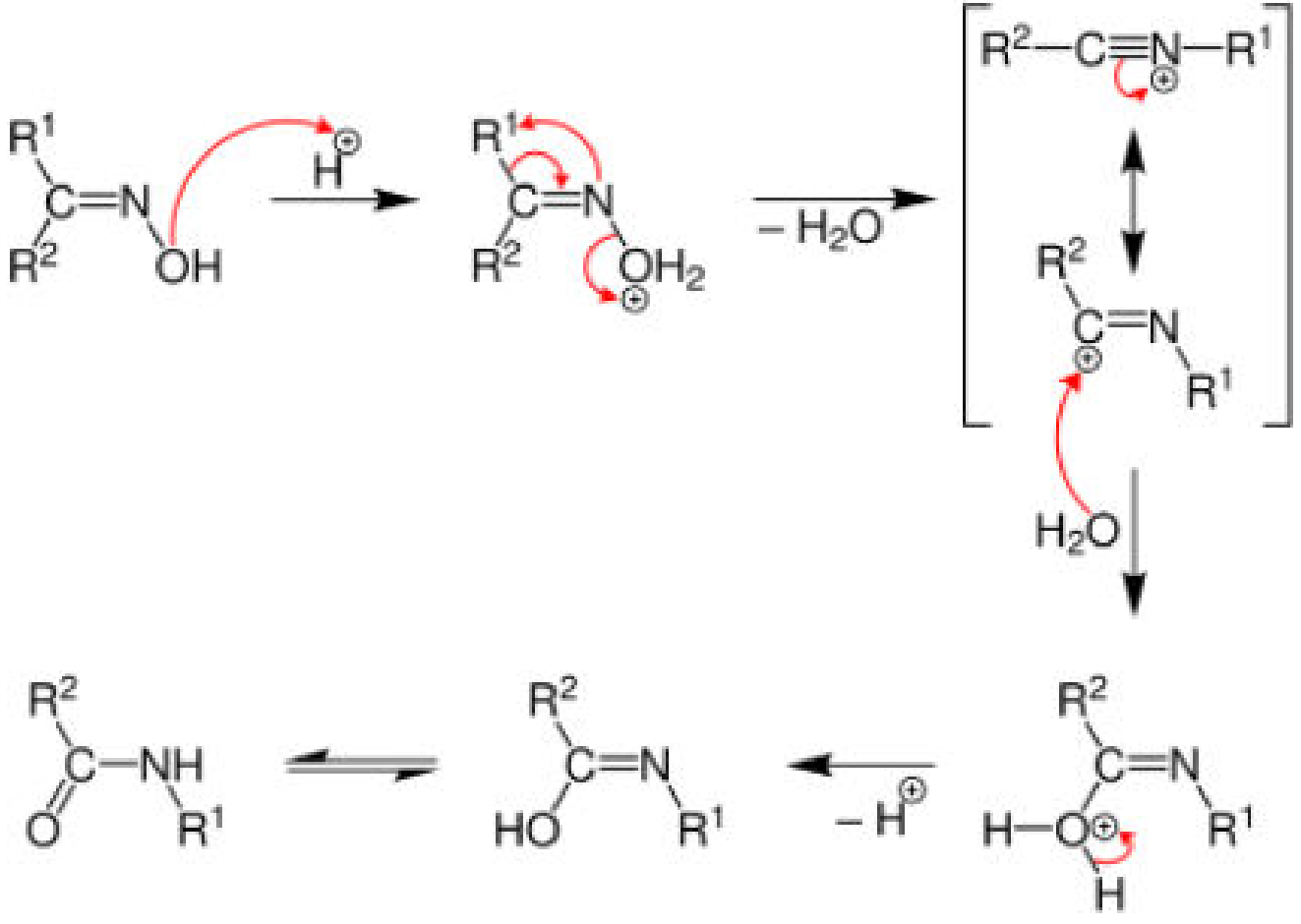
DEPTH OF BIOLOGY

- It is a chemical process in which ketoxime is converted into secondary amide
- This takes place in the presence of concentrated H_2SO_4 and PCl_5
- PCl_5 is an electrophile species
- First the product is formed in enol form then converted into keto form to maintain stability

DEPTH OF BIOLOGY

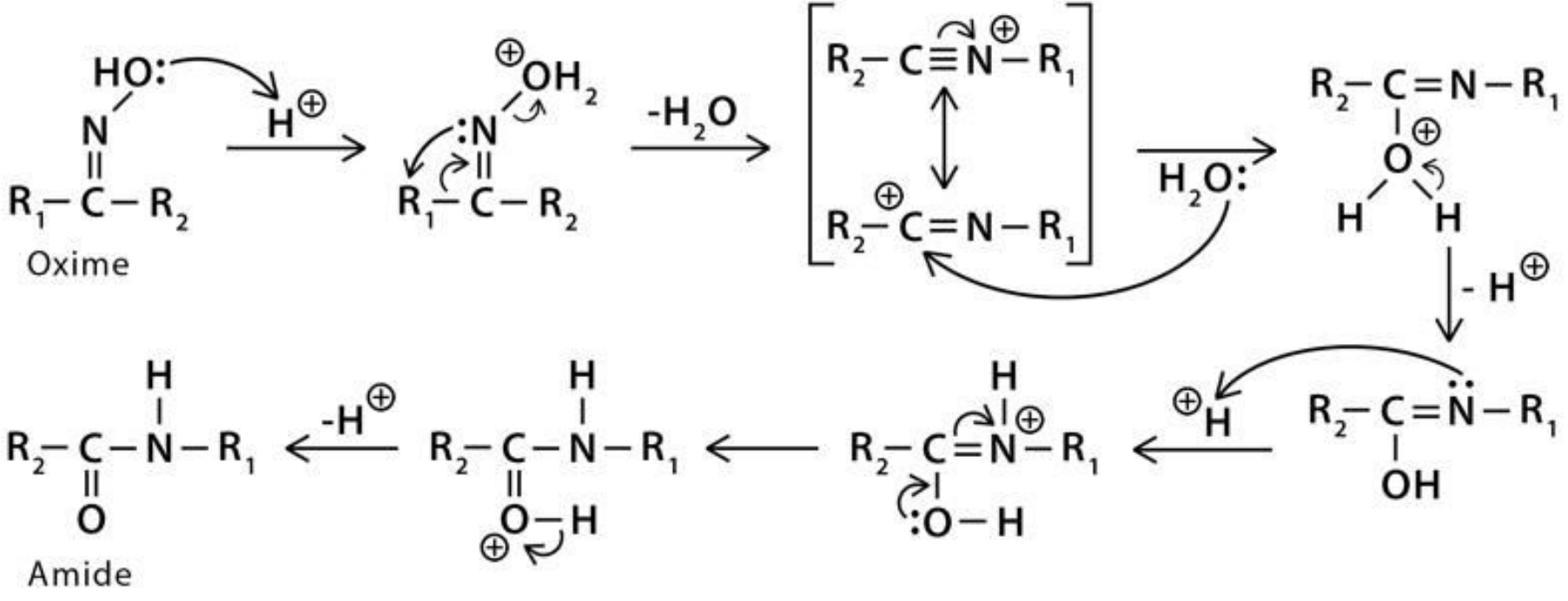


DEPTH OF BIOLOGY



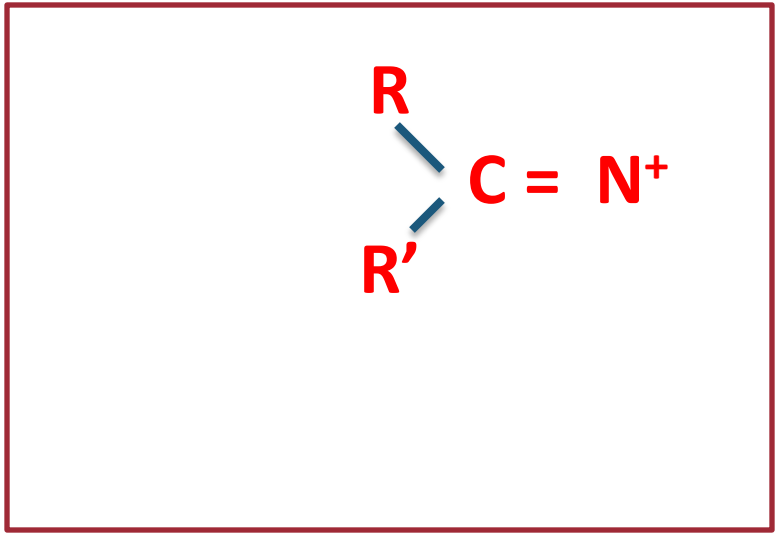
DEPTH OF BIOLOGY

Mechanism of Beckmann Rearrangement



DEPTH OF BIOLOGY

- First the OH^- and H^+ combine to form H_2O
- H_2O gets removed
- Later the compound is highly unstable as N is carrying positive charge
- So R' gets attached to N^+
- this compound gets attacked by H_2O
- enol form is obtained



DEPTH OF BIOLOGY

- The enol form is converted into keto form and stable secondary amide is obtained