# DEPTH OF BIOLOGY

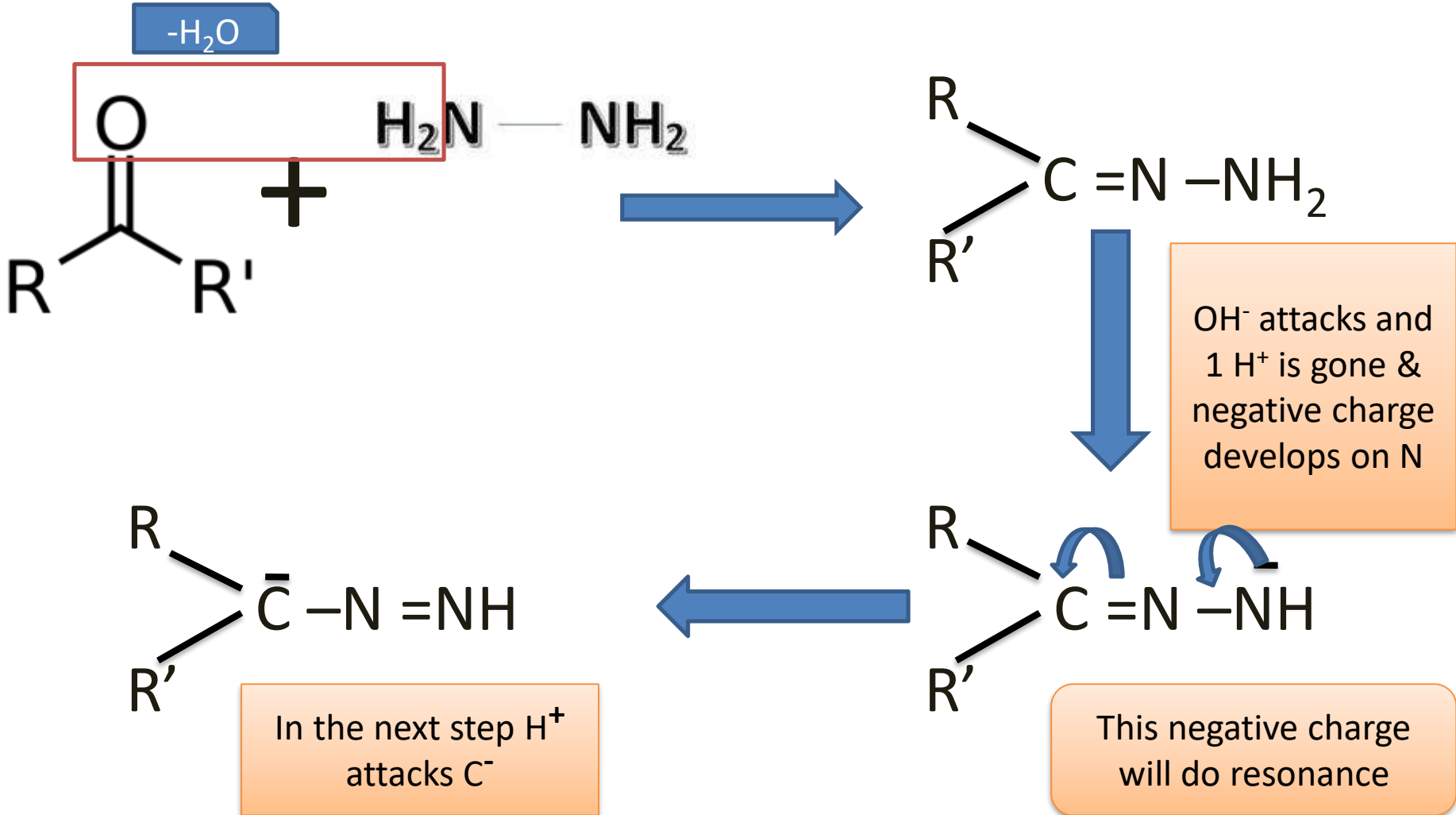
# WOLFF KISHNER REDUCTION

# DEPTH OF BIOLOGY

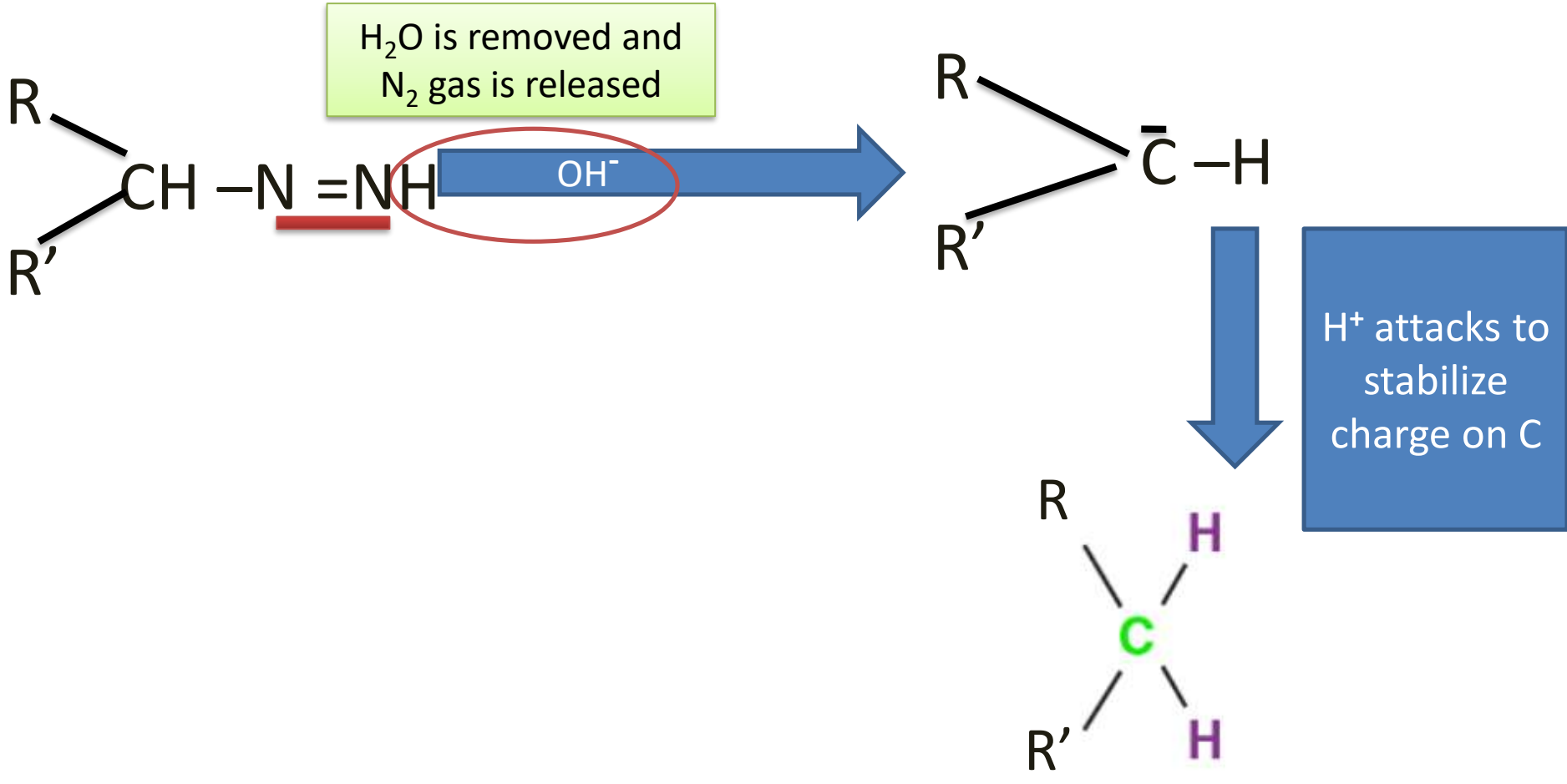
- In this reaction, aldehydes and ketones are reduced to alkanes in presence of following reagents-

1. Glycol
2. KOH
3. $N_2H_4$ – known as hydrazine

# DEPTH OF BIOLOGY



# DEPTH OF BIOLOGY



# DEPTH OF BIOLOGY

- Ketone reacts with hydrazine and water is removed
- The new formed compound is attacked by $OH^-$ which again removes one hydrogen atom leaving behind N with –ve charge
- The negative charge performs resonance
- -ve charge of Carbon is stabilized by $H^+$
- Again $OH^-$ attacks removing one more hydrogen atom , also $N_2$ gas is released
- To stabilize the negative charge of carbon $H^+$ again attacks
- Final product alkane is obtained

# DEPTH OF BIOLOGY