

Reaction	Bond broken on α -carbon of external aldimine	Bonds at quinoid-stabilized α -carbanion	NOTES
Transaminase	C-H	Protonation of PLP aldehyde	(after hydrolysis to PMP and a new α -keto acid condenses)
Decarboxylase	C-COO $^-$	Protonation	
α-elimination	C-C β	Protonation	(if Y=OH for proton abstraction)
Racemase	C-H(<i>proR</i>)	Protonate C α (<i>proS</i>)	
β-elimination	C-H	Carbanion makes C α -C β double bond in aldimine	(if Y=OH for proton donation as leaving group; water)
γ-elimination	C-H	Carbanion makes C α -C β double bond in quinoid	(uses PLP hydroxyl group)