






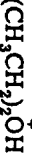

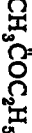
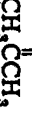



Table 9-1.3^a Approximate acidities of active methylene compounds and other common reagents^a

Compound	pK _a	Compound	pK _a
CH ₃ (NO ₂) ₂	4	(CH ₃) ₃ COH	19
CH ₃ CO ₂ H	5	C ₆ H ₅ COCH ₃	19
CH ₂ (CN)CO ₂ C ₂ H ₅	9	CH ₃ COCH ₃	20
CH ₂ (COCH ₃) ₂	9		21
CH ₃ CH ₂ NO ₂	9		
(CH ₃) ₃ NH [⊖]	10	(C ₆ H ₅) ₂ NH	21
C ₆ H ₅ OH	10	(CH ₃) ₃ C—CO—CH ₃	21
CH ₃ NO ₂	10	(CH ₃) ₃ C—CO—CH(CH ₃) ₂	23
CH ₃ COCH ₂ CO ₂ C ₂ H ₅	11	CH ₃ —SO ₂ —CH ₃	23-27
CH ₃ CH(COCH ₃) ₂	11	CH ₃ CO ₂ C ₂ H ₅	25
CH ₂ (CN) ₂	11	CH ₃ CN	25
CH ₂ (CO ₂ C ₂ H ₅) ₂	13	HC≡CH	25
	15	C ₆ H ₅ NH ₂	27
H ₂ O	16	(C ₆ H ₅) ₃ CH	28-33
O ₂ N—  —C ₆ H ₅	16	(C ₆ H ₅) ₂ CH ₂	33-35
C ₆ H ₅ CH ₂ —CO—C ₆ H ₅	16	CH ₃ —SO—CH ₃	35
CH ₃ OH	16-18	NH ₃	35
CH ₃ COCH ₂ —Cl	17	(C ₂ H ₅) ₂ NH	36
CH ₃ CH ₂ OH	18	C ₆ H ₅ CH ₃	37
(CH ₃) ₂ CHOH	18	CH ₂ =CHCH ₃	38

^a Acidic hydrogen atoms boldface.

ACIDITY OF α-HYDROGENS AND BASICITY OF CARBONYL OXYGENS

TABLE 18.5
Acidities of Protonated Compounds

Compound	Conjugate Acid	pK _a of Conjugate Acid
CH ₃ CONH ₂		0.0
H ₂ O	H ₃ O ⁺	-1.7
CH ₃ OH		-2.2
(CH ₃ CH ₂) ₂ O		-3.6
CH ₃ COOH		-6
CH ₃ COOC ₂ H ₅		-6.5
CH ₃ COCH ₃		-7.2
CH ₃ CHO		≈ -8
CH ₃ COCl		≈ -9
CH ₃ CN		-10.1