


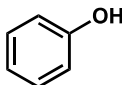


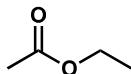
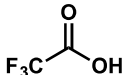
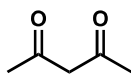

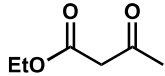

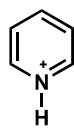

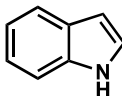
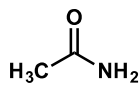


pK_a's in water (or DMSO)

H ₂ O	14* (32)	H ₂	35
H ₃ O ⁺	0.0	—	50
HCl	-5.9 (-2.0)	=	44
TfOH	-14.7 (-14.3)	≡	25
HOOH	11.6		43 (44)
CH ₃ OH	15.54 (29)		41 (43)
CH ₃ SH	10.33		15 (18)
	9.95 (18)		19.2 (26.5)
	4.76 (12.3)		25 (29.5)
	-0.25 (3.45)		9 (13.3)
	-2.6 (1.6)		11 (14.2)
NH ₃	38 (41)	—≡N	25 (31.3)
N ⁺ H ₄	9.2 (10.5)		10 (17.2)
Et ₃ N ⁺ H	10.75 (9)	Ph ₃ ⁺ P—CH ₃	(22.4)
	5.23 (3.4)		31 (39)
	16.2 (21.0)		
	15.1 (25.5)		

*NOTE: The pK_a of water has been described as 14 as shown in Silverstein, T.P.; Heller, S.T. J. Chem. Educ., 2017, 94 (6), pp 690-695