Data from *J. Phys. Chem. A*, **2016**, *120*, 2591–2604 http://dx.doi.org/10.1021/acs.jpca.6b01552

Table 1. Experimental and Calculated Gas-Phase Basicities, Basicities in THF (pK_α) and MeCN (pK_a) of Superbases from This Work and Literature. (See the original publication for footnotes)

No	Base	Directly measured $\Delta\Delta G_b$[a,b]	GB_{exp}[a,b]	GB_{calc}[a,b]	pK_α(THF)[a]	pK_a(MeCN)[a]
1	$EtP_1(tmg)_3$		273.9	278.3[v]	29.7[h]	
2	t-$BuP_1(tmg)_3$	0.37; 0.83	273.6	279.0	29.1[h]	
3	$PhP_3(pyrr)_7$	-1.36; 1.72; 2.30	273.0	283.2[v]	25.0[j]	32.77
4	$HP_1(tmg)_3$	0.60; 1.93; 1.68	272.3	275.3, 276.1[h]	28.6[h]	
5	2-Cl-$C_6H_4P_3(pyrr)_6NEt_2$	0.75; 0.85; 1.84	271.6		22.0[j]	31.19[k]
6	t-$BuP_1(tmg)_2NEt_2$	-0.96; 1.57	271.4		26.8[h]	
7	4-MeO-$C_6H_4P_3(dma)_7$	0.66; 3.40	270.9	271.9[v]	24.0[j]	31.99[k]
8	2,5-Cl_2-$C_6H_3P_3(pyrr)_6NEt_2$	0.43; 1.26; 1.46; 1.73	270.2		20.2[j]	29.16[k]
9	$PhP_1(tmg)_3$	-0.72; 1.21; 1.31	269.9	268.8, 274.0[h]	24.3[h]	31.4[g]
10	$PhP_3(dma)_7$	0.10; 1.00	269.6	273.7, 270.4[v]	23.5[j]	31.48[k]
11	2-Cl-$C_6H_4P_3(dma)_6NEt_2$	-0.01	269.6		20.8[j]	30.16[k]
12	HMPN	0.59; 0.73; 1.28; 2.58	268.8	270.1, 265.1[x]	21.9	29.9, 29.9[p], 29.1[p,m]
13	t-$BuP_2(dma)_5$	-0.05; 2.62; 2.77; 3.61	268.8	266.6, 266.6[y]	24.9	33.49[o]
14	TcyPPN	1.28; 1.81	268.5	271.1[e]	22.7	30.54, 30.5[e], 32.2[e,m]
15	TBPN	2.35; 2.91	267.6	269.5[e]	23.9	31.09, 30.9[e], 30.0[e,m]
16	$HP_1(pyrr\text{-}2\text{-}CH_2\text{-}N\text{-}pyrr)_3$	1.67; 1.75	267.1	269.0[f]		29.32
17	4-MeO-$C_6H_4P_2(pyrr)_5$	1.14	267.0		21.5[j]	28.23[k]
18	4-CF_3-$C_6H_4P_3(dma)_7$	1.40	266.4		21.7[j]	29.10[k]
19	$PhP_1(tmg)_2dma$	-0.92; 1.02; 0.28	265.9		21.5[h]	29.08[h]
20	TiPrPN	0.47; 1.56	265.7	266.6, 267.9[e]	22.6	30.36, 30.4[e], 30.9[e,m]
21	$PhP_2(pyrr)_5$	-1.10; 2.45; 2.89	265.5	265.3[v]	20.9[j]	27.55[k]
22	$EtP_2(dma)_5$	1.52; 2.5[d]; 1.68	264.6[d]	265.9[d]	25.3[t]	32.94[o]
23	2-Cl-$C_6H_4P_2(pyrr)_5$	0.04; 1.55	264.4		17.5[j]	25.42[k]
24	$CH_2(TBD)_2$	1.28; 5.7[d]; 1.06	263.0	261.8[l]		28.98[l], 28.6[l,m]
25	4-Br-$C_6H_4P_2(pyrr)_5$	-0.8[d]; 0.98; 5.5[d]	262.7		20.0[h]	26.32[j]
26	$PhP_2(dma)_5$	0.04; 1.1[d]; 1.9[d]; 1.8[d]	261.7[d]	259.2[h]	19.8[j]	26.46[k]
27	TMPN	-0.6[d]; 0.19; 2.8[d]	261.1	263.4, 262.7[e]	23.6	30.35, 29.3[e], 29.7[e,m]
28	Verkade-iBu_3	2.0[d]; 0.6[d]; 0.5[d]; 0.8[d]; 2.5[d]	260.8[d]			33.58[u]
29	4-CF_3-$C_6H_4P_2(pyrr)_5$	0.6[d]; 1.6[d]; 0.26; 3.9[d]	260.7			25.29[j]
30	2-Cl-$C_6H_4P_2(dma)_5$	-2.2[d]; 0.31; 3.5[d]; 1.51; 1.43	260.5[d]	258.7[d]	16.3[h]	24.25[g]
31	$EtP_1(pyrr)_3$	0.5[d]; 0.6[d]; 1.8[d]; 0.4[d]; 1.8[d]	259.6[d]	257.8[d]	21.7[j]	28.88[k]
32	Verkade-Me_3	1.0[d]; 1.4[d]; 0.9[d]; 1.0[d]; 0.2[d]	259.1[d]	255.0[d]		32.90[u]
33	t-$BuP_1(pyrr)_3$	7.3[d]; 2.8[d]; 0.4[d]	258.7[d]	258.2[d]	20.2[j]	28.42[k]
34	4-Me_2N-$C_6H_4P_1(pyrr)_3$	2.2[d]; 1.2[d]; 3.3[d]; 3.0[d]; 4.8[d]; 2.2[d]	257.5[d]		17.3[j]	23.88[k]
35	$PhP_1(dma)_2tmg$	-1.2[d]; 0.4[d]; 2.0[d]; 0.4[d]	256.5		18.4[h]	24.72[g]
36	TMGN	0.1[d]	256.3	251.4[x]	16.8[h]	24.94, 25.1[q]
37	BEMP	-1.4[d]	256.0[d]	255.6[d]	19.0[g]	27.63[n]
38	$HP_1(pyrr)_3$		255.2[d]	255.0[h]	20.8[j]	27.01[k]
39	4-MeO-$C_6H_4P_1(pyrr)_3$		254.9[d]		16.8[j]	23.12[k]
40	t-$OctP_1(dma)_3$		254.2[d]		18.5[g]	26.49[n]
41	t-$BuP_1(dma)_3$		252.9[d]	252.1[h], 252.0[y]	18.9[i]	26.98[k]
42	$MeP_1(dma)_3$		251.9[d]	252.3[s]	20.7[j]	27.52[k]
43	$PhP_1(pyrr)_3$		251.7[d]	250.9[d]	16.1[j]	22.34[k]
44	1-$NaphtP_1(pyrr)_3$		250.9[d]		14.2[t]	20.61[k]
45	2-Cl-$C_6H_4P_1(pyrr)_3$		250.8[d]		13.2[t]	20.17[k]
46	$HP_1(dma)_3$		249.6[d]	249.2[s]	19.7[j]	25.85[k]
47	4-Br-$C_6H_4P_1(pyrr)_3$		249.3[d]		15.4[t]	21.19[k]
48	2,5-Cl_2-$C_6H_3P_1(pyrr)_3$		248.2[d]	244.2[d]	11.9[t]	18.52[k]
49	ITBD		247.9[d]	249.1[d]		
50	ETBD		247.5[d]	245.3[d]		
51	MTBD[r]		246.2[r]	248.0[d]	18.6[j]	25.44[n]
52	$PhP_1(dma)_3$		246.1[d]	245.3[h]	15.2[t]	21.25[k]