

TABLE 2 Variations of the First pK_a of MEA and the Eight Amines Studied With Temperature (T/K)

Amine	Temperature T/K					
	293.15	298.15	303.15	308.15	313.15	323.15
3-(Diethylamino) propylamine (DEAPA)	10.58	10.44	10.3	10.15	10.03	9.83
1,3-Diaminopentane (EP)	10.56	10.38	10.23	10.07	9.92	9.7
3-Butoxypropylamine (BPA)	10.04	9.9	9.74	9.59	9.43	9.18
2-(Methylamino) ethanol (MAE)	9.91	9.84	9.7	9.54	9.4	9.22
Bis(2-methoxyethyl) amine (BMOA)	8.69	8.62	8.51	8.37	8.25	8.07
α -Methylbenzylamine	9.5	9.37	9.17	8.94	8.83	8.57
2-Aminoheptane	10.71	10.53	10.24	9.99	9.24	8.65

(AH)

3-Amino-1-phenylbutane	10.42	10.19	9.98	9.79	9.61	9.34
(APB)						
MEA ^{This Study}	9.60	9.47	9.29	9.18	9.05	8.79
MEA ¹⁴	9.56	9.45	9.27	9.14	9.06	8.72
MEA ¹⁵		9.47	9.26		9.09	8.74
MEA ¹¹	9.56	9.50	9.35	9.21	9.07	8.81
MEA ¹⁰	9.56	9.43	9.28	9.16	9.04	8.72
MEA ⁹	9.56	9.45	9.27	9.16	9.05	8.73

Standard uncertainties: $u(pK_a) = 0.03$ and $u(T) = 0.01\text{K}$ (0.95 level of confidence).
