Comments

Comments on the Paper "Hydrocarbon Gas Solubility in Sweetening Solutions: Methane and Ethane in Aqueous Monoethanolamine and Diethanolamine" (Lawson, J. D.; Garst, A. W. *J. Chem. Eng. Data* 1976, *21*, 30−32)

A. E. Mather*,† and K. N. Marsh‡

Department of Chemical Engineering, University of Alberta, Edmonton, Alberta T6G 2G6, Canada, and Thermodynamics Research Center, Texas A&M University, College Station, Texas 77843-3111

This paper has been widely quoted in the literature for many years and errors in Tables 1 and 2 have only come to light recently when a copy of the original report came into the hands of A. E. Mather. The corrected Tables 1 and 2 follow. Many researchers have suspected that some of the values in Tables 1 and 2 were wrong. Asterisks indicate corrected values.

Table 1. Solubility of Methane in MEA and DEA Solutions

amine solution		vapor-phase partial press. of methane, psi	liquid-phase concn of methane, lb-mol; methane/10^5 lb soln
wt % amine	amine type		
		100 °F	
5	DEA	512	3.48
		963	6.46
25	DEA	510	3.20
		968	6.00
40	DEA	526	3.24
		933	5.52
15	MEA	954	6.55
40	MEA	500	3.48
		954	6.26
		150 °F	
5	DEA	516	2.77
		978	5.20
25	DEA	511	2.89
		982	5.40
40	DEA	518	3.06
		937	5.38
15	MEA	498	3.07
		993	5.80
40	MEA	500	3.33
		954	6.20
		200 °F	
25	DEA	516	2.58
		920	5.02
40	DEA	530	3.04
		963	5.74
40	MEA	490	3.66*
		974	6.65*
		250 °F	
25	DEA	501	2.97
		920	5.82
40	DEA	498	3.56
		908	6.30
40	MEA	508	4.19
		950	7.85

Table 2. Solubility of Ethane in MEA and DEA Solutions

amine solution		vapor-phase partial press. of ethane, psi	liquid-phase concn of ethane, lb-mol; ethane/10^5 lb of soln
wt % amine	amine type		
		100 °F	
5	DEA	504*	3.56*
		820*	4.67*
25	DEA	480	3.83
		868	5.02
15	MEA	491	3.90
		868	5.04
		150 °F	
5	DEA	501	2.65
		957	3.94
25	DEA	498	3.14
		972	4.78
15	MEA	501	3.11
		955	4.98
40	MEA	503	4.25
		932	6.38

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† University of Alberta.
‡ Texas A&M University.

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