Table VII. Binary Constants and Per Cent Deviations of Experimental Data

Acetone–methanol system	
	ν_{12} = 0.4269 Cs.
	ν_{21} = 0.4428 Cs.
Per cent av. dev.	= ±0.60
Per cent max. dev.	= ±0.97
Methanol–ethylene glycol system	
	ν_{23} = 1.9710 Cs.
	ν_{32} = 5.8750 Cs.
Per cent av. dev.	= ±1.51
Per cent max. dev.	= ±2.58
Ethylene glycol–acetone system	
	ν_{31} = 2.7750 Cs.
	ν_{13} = 0.6604 Cs.
Per cent av. dev.	= ±1.45
Per cent max. dev.	= ±2.76

Table VIII. Kinematic Viscosities of Acetone–Methanol–Ethylene Glycol Mixtures

Mole Fraction of Components			Kinematic Viscosities, Cs.	
Acetone	Methanol	Ethylene glycol	Exptl.	Calcd.
0.0817	0.7878	0.1305	0.9043	0.8941
0.1902	0.6789	0.1309	0.7807	0.7802
0.3124	0.5570	0.1306	0.6745	0.6873
0.6033	0.2659	0.1308	0.5472	0.5571
0.0740	0.6948	0.2312	1.2453	1.2270
0.1699	0.5989	0.2312	1.0702	1.0670
0.2744	0.4949	0.2307	0.9411	0.9387
0.4021	0.3668	0.2311	0.8159	0.8213
0.5368	0.2321	0.2311	0.7355	0.7336
0.6782	0.0908	0.2310	0.6595	0.6655
0.0674	0.6221	0.3105	1.5772	1.5810
0.1523	0.5371	0.3106	1.4019	1.3790
0.2449	0.4440	0.3111	1.2129	1.2140
0.3578	0.3315	0.3107	1.0643	1.0590
0.4809	0.2090	0.3101	0.9278	0.9365
0.0571	0.5679	0.3750	1.9383	1.9580
0.1371	0.4879	0.3751	1.7315	1.7070
0.2209	0.4035	0.3756	1.5066	1.5060
0.3260	0.2969	0.3771	1.3301	1.3170
0.4318	0.1923	0.3759	1.1556	1.1660
0.5409	0.0836	0.3756	1.0491	1.0500
0.2939	0.2615	0.4446	1.6728	1.6540
0.3818	0.1738	0.4444	1.4637	1.4810
0.4850	0.0697	0.4453	1.3200	1.3290

NOMENCLATURE

ΔG^* = molal free energy of activation for viscosity cal./gram mole
R = gas constant, 1.987 cal./gram mole ° K.
T = absolute temperature, ° K.
N = Avogadro number, 6.023×10^{23} molecules/gram mole
h = Planck constant, 6.6240×10^{-27} erg. - sec./molecule
M = molecular weight, grams/gram mole
ν = kinematic viscosity, stoke or centistoke

Subscripts

1 = acetone
2 = methanol
3 = ethylene glycol

LITERATURE CITED

(1) Chandramouli, V.V., Laddha, G.S., *Indian J. Tech.* **1**, 199 (1963).
(2) Frenkel, Y.I., "Kinetic Theory of Liquids," Oxford University Press, London, 1946.
(3) Glasstone, Samuel, Laidler, K.J., Eyring, Henry, "The Theory of Rate Processes," McGraw-Hill, New York, 1941.
(4) Institute of Petroleum, London, "Standard Methods for Testing Petroleum and its Products," 1948.
(5) McAllister, R.A., *A.I.Ch.E. J.* **6**, 427 (1960).
(6) Mikhail, S.Z., Kimel, W.R., J. CHEM. ENG. DATA **6**, 533 (1961).
(7) Partington, J.R., "The Properties of Liquids," Vol. **II**, in "An Advanced Treatise on Physical Chemistry," Longmans, Green, London (1951).
(8) Ramanujam, M., Laddha, G.S., *J. Madras Univ.* **29(B)**, 103 (1959).
(9) Reid, R.C., Sherwood, T.K., "The Properties of Gases and Liquids," McGraw-Hill, New York, 1958.
(10) Weissberger, A., Proskauer, E.S., "Organic Solvents," Interscience, New York, 1955.

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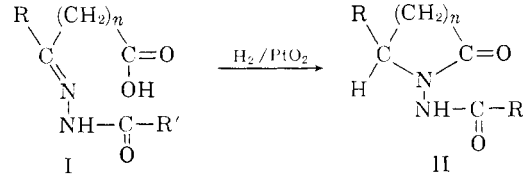
CORRECTION:

In the article, "Reductive Cyclization of Hydrazones," [J. CHEM. ENG. DATA 8, 601 (1963)], the product of the reaction in Table I is incorrect. The corrected table is reproduced below.

Table I. Properties of Hydrazones



	I Hydrazone M.P.[a] ° C.	R	R′	n	II Hydrazine M.P.[a] ° C.	Formula	Carbon Calcd.	Carbon Found	Hydrogen Calcd.	Hydrogen Found	Nitrogen Calcd.	Nitrogen Found
A	188–189[b]	CH_3	NH_2	2	181–183	$C_6H_{11}N_3O_2$	45.85	45.92	7.05	7.11	26.74	26.79
B	143–144	CH_3	CH_2	2	54–56	$C_7H_{12}N_2O_2$	53.83	53.59	7.74	7.84	17.94	17.66
C	111–113	CH_3	OC_2H_5	2	59–60	$C_8H_{14}N_2O_3$	51.60	51.68	7.58	7.49	15.04	15.02
D	–[c]	CH_3	OC_2H_5	3	48–50[d]	$C_9H_{16}N_2O_3$	53.98	54.08	8.06	8.07	13.99	14.16
E	153–155	C_6H_5	OC_2H_5	2	–[e]	$C_{13}H_{16}N_2O_3$	62.89	63.15	6.50	6.56	11.28	11.45

[a] Melting points taken on Hoover-Thomas apparatus and are corrected. [b] Reported (5) m.p. 191–2°. [c] Not isolated. [d] B.P. 105–7°/0.1 mm. [e] B.P. 192–5°/1.0 mm.; after standing for 1 year it did not crystallize.