**Table VI. Refractive Index of Copper Sulfate Solutions Chelated with Disodium EDTA $[(CNH_2)_2(CH_2COOH)_2\text{-}(CH_2COONa)_2]$ in $H_2O$ at 25°C**

| | $CuSO_4$ concn (*M*) | | | |
|---|---|---|---|---|
| EDTA (*M*) | 0 | 0.01 | 0.02 | 0.03 |
| 0 | 1.33126 | 1.33162 | 1.33193 | 1.33224 |
| 0.01 | | 1.33204 | 1.33231 | 1.33263 |
| 0.02 | 1.33250 | 1.33262 | 1.33275 | 1.33303 |
| 0.03 | | 1.33314 | 1.33326 | 1.33345 |
| 0.04 | | 1.33372 | 1.33386 | 1.33397 |
| 0.05 | 1.33424 | 1.33428 | 1.33443 | 1.33450 |
| 0.10 | 1.33708 | | | |
| 0.15 | 1.33993 | | | |
| 0.20 | 1.34274 | | | |


## Acknowledgment

Some of the data were obtained from K. S. Spiegler and C. Forgacs.


## Literature Cited


(1) Bauer, N., Lewis, S. Z., "Technique of Organic Chemistry," 3rd ed., Vol I, "Physical Methods," Part II, A. Weissberger, Ed., Interscience, New York, N.Y., 1966, p 1242.
(2) Forziati, A. F., *J. Res. Nat. Bur. Stand.*, **44**, 373 (1950).
(3) O'Brien, R. N., *J. Chem. Eng. Data*, **13**, 2 (1968).
(4) O'Brien, R. N., Quon, D., *ibid.*, p 517.
(5) Tilton, L. W., Taylor, J., *J. Res. Nat. Bur. Stand.*, **20**, 419 (1938).



Received for review September 27, 1971. Resubmitted September 11, 1972. Accepted November 27, 1972. This work was partly supported by the National Research Council of Canada and partly by the Seawater Conversion Laboratory of the University of California at Berkeley.


# Correction

In the article, "Refractive Index of Some Alcohols and Saturated Hydrocarbons at 6328Å," by R. N. O'Brien and D. Quon [*J. Chem. Eng. Data*, **13** (4), 517 (1968)], a calibration error in the precision Abbé refractometer used in this work has caused the quoted refractive index to be greater than the correct value by 0.00189, which should be subtracted from all values. To obtain this correction, the values of Tilton and Taylor *(2)* for pure water at 25°C were converted to 632.8 nm by interpolation of their values at 630.0 and 635.0 nm. The O'Brien and Quon instrument values using the Cauchy formula were then converted to Tilton and Taylor's at 589.3 nm and found to agree. The instrument was also calibrated with a standard A.P.I. toluene sample.

To test that the subtraction of 0.00189 would give the correct value, some of the substances' refractive indices were redetermined at 25°C. It can be seen from Table I the average difference is between 0.00184 and 0.00185 or about 0.00004 below the calculated correction. This difference is less than the guaranteed accuracy of the instrument (0.00006). The new values were determined using the new background scattering technique *(1)* and would be expected to give more accurate values than those obtained earlier.

The samples used were not the original ones. Some had purities as good as the samples used in the publication, others did not. The alcohols are hygroscopic and the new values would be expected to be low or the difference to be generally above 0.00189. The alkanes were 99% pure and would be expected to have more heavier fractions (with higher refractive indices) than the original samples which were specially prepared. This is consistent with the lower difference shown. The average difference of the set would be expected to be close to the calculated correction as it was.

**Table I. Refractive Indices at 632.8 nm and 25°C Relative to Air**

| Substance | Publ refractive index | Redetermined refractive index | Diff, $n_P - n_R$ |
|---|---|---|---|
| 1-Propanol | 1.38382 | 1.38181 | +0.00201 |
| 1-Butanol | 1.39748 | 1.39559 | +0.00189 |
| 1-Pentanal | 1.40822 | 1.40632 | +0.00190 |
| 1-Hexanal | 1.41704 | 1.41493 | +0.00211 |
| Pentane | 1.35575 | 1.35404 | +0.00171 |
| Heptane | 1.38581 | 1.38405 | +0.00176 |
| Octane | 1.39574 | 1.39405 | +0.00169 |
| Nonane | 1.40373 | 1.40206 | +0.00167 |
| Av | | +0.00184 → +0.00185 | |

Plots of the refractive index vs. number of carbons in the alkane series lead the authors to suspect that the original sample labeled *n*-hexane was not normal hexane.

## Literature Cited


(1) O'Brien, R. N., Dieken, F. P., Glasel, A., *J. Chem. Eng. Data*, **18**, 142 (1973).
(2) Tilton, L. W., Taylor, J. K., *J. Res. Nat. Bur. Stand.*, **20**, 419 (1938).