

over an unusually wide range (10% to 70% complete in many cases); this could hardly have occurred if Dr. van Duin's interpretation of our reaction had been correct.

It seems to us that Dr. van Duin has erred in applying his interpretation of his much more complicated reaction to our relatively simple reaction. Dr. van Duin finds that his values for  $k$ , calculated on the basis that his reaction is trimolecular, change with the dilution; this may be due to changes in ionization as he suggests, but it is hardly fair to assume that the differences he observes between 1  $N$  aqueous potassium iodide and 0.5  $N$  solution will find their parallel in our 0.04  $M$  absolute acetone solution. Similarly, he finds a change in the value of  $k$  on adding potassium ions corresponding to a molar solution; it is hardly safe to assume from this that the removal of potassium (as potassium chloride) from our 0.04  $M$  acetone solution will cause a similar result, whether or not one designates the influence of 2  $M$  potassium chloride in his experiments by the term catalysis.

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**Detection of Diethylphthalate in Ethyl Alcohol.**—The following is the official test for the detection of diethylphthalate in ethyl alcohol, given in the Appendix, United States Government Regulations No. 61, to be used in connection with 39-B specially denatured alcohol.

"Take five drops of diethylphthalate or ten cc. of the 2.5% solution (39-B), place in a small casserole and add 5 cc. of a 10% solution of sodium hydroxide. Evaporate practically to dryness on a steam-bath and then to complete dryness over a low Bunsen flame. Continue heating until the mass is in gentle fusion. Discontinue heating and add at once approximately 0.5 g. of resorcinol. The mass effervesces and turns dark brown. Place a small portion of this mass in a test-tube and add water. The characteristic color of fluorescein develops at once."

This test has been found by the writers to be unreliable, as a distinct fluorescence will develop with grain alcohol known to be free from diethylphthalate.

A blank test was run as follows. Five cc. of a 10% solution of sodium hydroxide was evaporated to complete dryness and immediately 0.5 g. of C.P. resorcinol was added. The mass effervesced and turned a dark brown. A small portion was placed in a test-tube with water, when a distinct fluorescence developed. This proves conclusively that diethylphthalate is not necessary to bring about a fluorescence.

While it is true that the color of the fluorescence is slightly different when diethylphthalate is present, the degree of dilution may cause erroneous conclusions to be drawn.

The following tentative qualitative test, while not conclusive, will give a strong indication of the presence of diethylphthalate.

Evaporate 100 cc. of the suspected alcohol to a small bulk. Pour in a large volume of water to which a few cubic centimeters of sodium hydroxide solution has been added. If diethylphthalate is present a milky cloud of the denaturant will develop. Confirming tests may be made on the boiling point. Diethylphthalate boils at  $290^{\circ}$  to  $297^{\circ}$ .

The detection of the fallacy of the Government test is important in as much as it has been the cause, within the writers' experience, of condemning large quantities of ethyl alcohol which were later shown to be free from diethylphthalate.

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### NEW BOOKS

**Quarterly Journal of the Indian Chemical Society.** Volume I. Issue No. 1, September 30, 1924. All communications to be addressed to Dr. J. N. MUKHERJEE, Secretary, Indian Chemical Society, 92, Upper Circular Road, Calcutta, India. Calcutta University Press. 122 pp. Illustrated.  $24.5 \times 16$  cm. Price of a single issue, 4 rupees. Annual subscription for non-members, 16 rupees.

The recent formation of the *Indian Chemical Society* and now the establishment of its *Quarterly Journal* are evidences of the activity with which chemical research is now being carried on in India. How appropriate it is that in this country, where so many of mankind's earliest chemical discoveries were made, the science of chemistry should again flourish!

There are thirteen articles in this issue. They are devoted entirely to accounts of original researches, for the most part in pure chemistry, but widely distributed among the various branches of the science—organic, inorganic, physical, bio- and thermo-chemistry.

The Editors are Drs. N. R. Dhar of Allahabad and E. R. Watson of Cawnpore.

It is a pleasure to welcome this new accession to the ranks of the Journals of Chemistry.

ARTHUR B. LAMB

**Lunge and Keane's Technical Methods of Chemical Analysis.** Edited by CHARLES A. KEANE, D. Sc., Ph.D., and P. C. L. THORNE, M.A., M.Sc., of the Sir John Cass Technical Institute, London. Second edition. Vol. I. D. Van Nostrand Company, 8 Warren Street, New York, 1924. xx + 702 pp. 215 figs.  $24.5 \times 17$  cm. Price \$18.00 net.

Those who are familiar with the previous edition of this important work will probably find difficulty in recognizing the first volume of the present edition. It undoubtedly deserves more thorough investigation than is