

Reading Device for Burets

BY WALTER P. WHITE

Some burets having the graduations run half-way around the tube proved quite satisfactory in the easy avoidance of parallax error, but the large amount of white marking or some other cause rendered the meniscus very hard to distinguish. A very bright background, used by some observers, made the meniscus clear, but gave an uncomfortable glare, while the graduations in front of the meniscus were invisible, which was troublesome, even if not seriously so. With a moderately bright background a vertical black surface just below and behind the meniscus showed it up clearly, but left its apparent position variable with the height of the black surface, while the graduations in front of the meniscus were still invisible. Every difficulty was avoided by the following arrangement. A split perforated cork 5 cm. in diameter was clamped or pinned together around the buret, with its upper surface darkened. To this was tacked a card or piece of white celluloid, extending back at an angle of 45°, and partly above the cork. The whole was illuminated by light from the side. Then the meniscus showed very clear against the not too bright card, while, reflecting as it did a *horizontal* surface, its position did not change perceptibly with moderate movement of the cork. All the graduations were very distinctly visible, except, of course, that part of them directly behind the meniscus. Reasonably bright illumination of the room was quite sufficient, and seemed much better than any concentrated light, unless this was just right, in position and intensity.

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The Thermal Dissociation of Lithium Hydride

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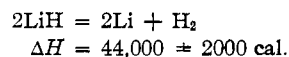
The thermal dissociation of lithium hydride has been studied in this Laboratory for about two years. The method used has been that of Hurd and Walker [THIS JOURNAL, 53, 1681 (1931)]. Great difficulty has been experienced in keeping the lithium inside the metal cylinder from passing through the metal and attacking the quartz tube. In only one run have we been successful. The results for that run are given here, since it has become necessary to discontinue work on the problem. The lithium was loaded into a nickel cylinder which then received a thin but smooth coating of cobalt by electrodeposition.

The pressures of hydrogen obtained were

Temp., °K.	782	870	871.5	922	926	953
p_{H_2} , cm.	0.010	0.185	0.175	0.730	0.780	2.67

The last figure is given by Guntz [*Compt. rend.*, 122, 244 (1896); 123, 694 (1896)] and falls slightly above our curve.

By plotting $\log p$ against reciprocal T , we have obtained a value of ΔH from the slope. If the reaction is assumed to be



It is interesting to compare this value with the value obtained calorimetrically by Guntz and Benoit [*Ann. chim.*, 20, 5 (1923)] of 43,600 calories.

The agreement between the values of ΔH obtained from our dissociation pressures and the calorimetric value of Guntz and Benoit would suggest that the dissociation proceeds as indicated.

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