condensation of water on the glass walls after the mercury had more than half filled the pump, and practically no water was carried over by the mercury at the end of the stroke; then, during the fall of the mercury, no flashing was to be observed at first, but it commenced abruptly and continued after the mercury had come about halfway down. With varying original partial pressures of water vapor, the point at which flashing began differed; but in each instance there was complete absence of flashing while the space above the mercury was saturated, and flashing occurred as in a perfectly dry pump as soon as the space was less than saturated.

These results seem reasonable enough. No considerable potential difference between the mercury and the uncovered glass above it can build up, by separation of the glass and mercury, as long as a slightly conducting film of liquid water is on the glass; but as soon as the liquid film has evaporated, separation of the glass and mercury, as the latter falls in the pump, gives increasing potential difference until discharge through the space above the mercury, with an accompanying flash, occurs; and unsaturated water vapor does not interfere with the process.

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GAS DISCHARGE WAVE-LENGTH LIST IN THE EXTREME ULTRA-VIOLET

WE have prepared a list, arranged in order of wave-length, of the published lines in the extreme ultra-violet (λ 2500 to λ 100) arising from discharges in gases. The elements included are hydrogen, helium, carbon, nitrogen, oxygen, neon, sodium, silicon, argon and mercury. Thanks to support from the Carnegie Institution of Washington it has been possible to publish a limited mimeographed edition of the list, copies of which have been sent to a few spectroscopists to whom we thought it might be of particular use. We should be glad to give copies to any others who may write requesting them.

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MORE ABOUT A UNIFORM BIBLIOGRAPHIC SYSTEM

IN the issue of SCIENCE for January 10, 1930, Dr. M. C. Merrill, editor of the *Journal of Agricultural Research,* calls attention to certain alleged disadvantages of the name-date system of presenting literature citations. He involves the name-date system in an instance of *reductio ad absurdum* by citing a case where nineteen literature citations were noted at one point. The case used to illustrate the alleged absurdity is rather an exceptional one. An inspection of current articles in a variety of scientific journals will show that the total number of literature citations in the text of papers which refer to a large number of papers is comparatively small. A survey of over 5,100 citations has shown that over 95 per cent. referred to only one article in the bibliography; over 3 per cent. referred to two articles; more than 1 per cent. to three articles, while .31 per cent of them referred to four articles. This makes the proverbial 99.4 per cent. of these citations which referred to one, two or three articles, or 99.9 per cent. of the citations referring to five articles or less. One citation was found in the *Journal of Agricultural Research* which referred to seventeen different articles. This calculates to .01946 per cent. Dr. Merrill calls attention to one other such exception. No others were found containing more than seven citations at one point. It might also be mentioned that, of the ten lines used by Dr. Merrill in his elaborated citation in SCIENCE, nearly three are given over to comments not usually incorporated in such citations.

The use of the letters *a, b, c,* etc., to differentiate between papers published the same year by one author is no more cumbersome than their use for insertion of additional references into a completed manuscript at the galley-proof or other stage. The writer prefers an alphabetical list of references in practically all instances.

Attention is called to the situation where two years' numbers of a journal are bound into one volume. In this connection we should recall that where the name-number system is used the date is included under "literature cited," and it is as easily made accurate and definite by the name-date as by the name-number system. Furthermore, the name-date system keeps before the reader the information regarding the date of publication, which is an aid in evaluating in many instances.

Undoubtedly no one bibliographic system is perfect, nor will it cover all the exceptional cases. Certain possible improvements were suggested in the August 30 issue of SCIENCE. An additional suggestion is the desirability of using bold-faced type to designate the volume number. The advantages of giving the full titles under "literature cited" and of giving a definite and uniform position to each of the four items —name, date, title and literature reference—are again emphasized. This latter suggestion varies from the form used by various journals mainly in placing the reference itself upon a new line in each case rather