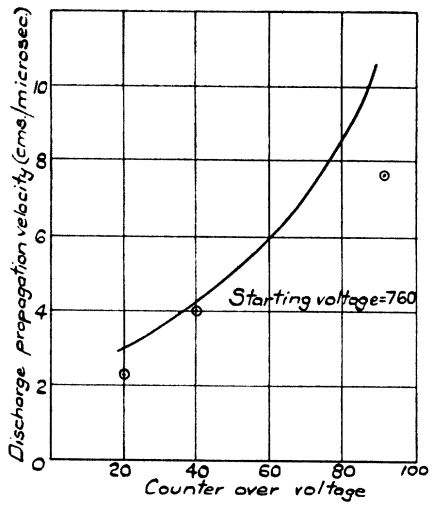

FIG. 2. Results of check measurements taken with an argon/ethyl alcohol-filled counter.

and the subsequent pulse from the other end cylinder ("stop cylinder"), as the discharge reaches it, closes the gate and the intervening number of oscillations, each 0.25μ sec. in duration, is shown upon the recorder.

Some check measurements were taken with an argon/ethyl alcohol-filled counter 1 m in length. Some of the results (9.5 cm Hg argon, 0.5 cm Hg C_2H_5OH) are shown in Fig. 2. The wire and cathode diameters were, respectively, 5 mils (tungsten) and 0.75 inch (copper). The curve in Fig. 2 was taken from the publication of Hill and Dunworth,[4] using an 8-mil wire but with an otherwise similar counter, and the points are the present results. The agreement (see discussion by Wantuch[6]) is considered reasonable.

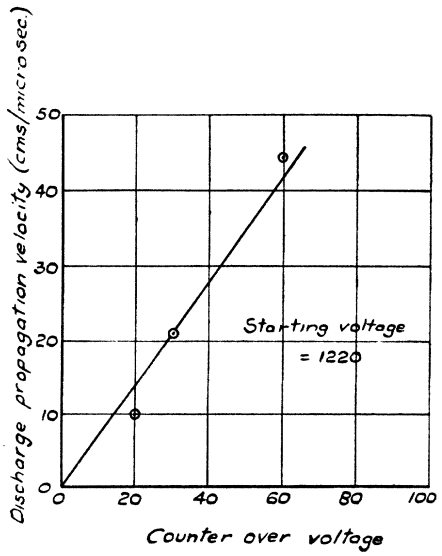

FIG. 3. Results obtained with a counter filling of 10 cm Hg hydrogen.

Using 1-m and 2-m counters (5-mil wire, 0.75-inch dia. cathodes), data have been obtained with certain elementary gases, and Fig. 3 shows some results obtained with a counter filling of 10 cm Hg hydrogen (2 m in length). The speed of discharge propagation is much higher than in Fig. 2, as would be expected in general terms if the discharge spreads along the wire by virtue of a photoionization mechanism, as is generally assumed.[5,7-9]

This simple picture is complicated by various factors which cannot be fully discussed in a note. For example, some discharges start in the long cylinder (see the schematic counter in Fig. 1) as a result the finite background count and, propagating in opposite directions, give short spread times. Discharges propagating by virtue of cathode emission of electrons and by photons covering distances of some cm[9] will also give short times. These and other related matters will be discussed more fully elsewhere, together with a consideration of the mechanism of discharge propagation and more exhaustive experimental data.

We are indebted to Sir A. P. M. Fleming, Director, and Mr. B. G. Churcher, Manager, of the Metropolitan-Vickers Research Department for permission to publish this note.

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Erratum: Alkali Halide Scintillation Counters

[Phys. Rev. **74**, 100 (1948)]

ROBERT HOFSTADTER
Princeton University, Princeton, New Jersey

THE Editor regrets that Fig. 1 of the above-named Letter to the Editor was printed upside down. It should have been as follows:

FIG. 1. Oscilloscope screen photographs taken at random for 1/30 second. Above, pulses caused by NaI (Tl) and below, pulses caused by naphthalene under identical circumstances. Sweep calibration: total length of sweep equals 4.3 microseconds.

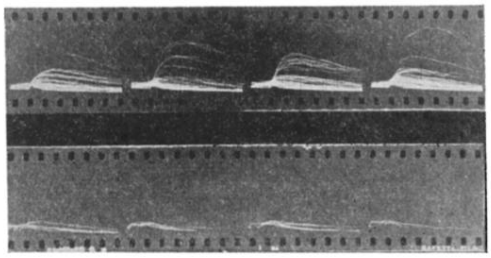

FIG. 1. Oscilloscope screen photographs taken at random for 1/30 second. Above, pulses caused by NaI (Tl) and below, pulses caused by naphthalene under identical circumstances. Sweep calibration: total length of sweep equals 4.3 microseconds.