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Figure 2

Experiment of June 23, 1949. Curve I gives in semi-log plot $L - L_0$ as a function of time of reactivation at 8 inches from 1000 watt projection lamp for bacteria that had received a UV dose, D , of 250 sec. Curve II is the same for bacteria that had received a UV dose of 150 sec. The interval x represents the latent period of the process, of reactivation minutes.

Figure 1

Experiment of May 11, 1949. $A(D)$, left scale, gives in semi-log plot the number of survivors as function of UV dose, D , in seconds of exposure to 15 watt germicidal lamp at 50 cm distance. (no light reactivation). $B(D)$, left scale, gives in semi-log plot the number of survivors as function of UV dose, D , with light reactivation by 1 hour exposure to light of 1000 watt projection lamp at 8 inches distance. $L(D)$, right scale, gives ~~in~~ ^{in linear coordinates} L as function of D satisfying equation $A(1) = B(D)$.

17 cm (run at 120 sec.)

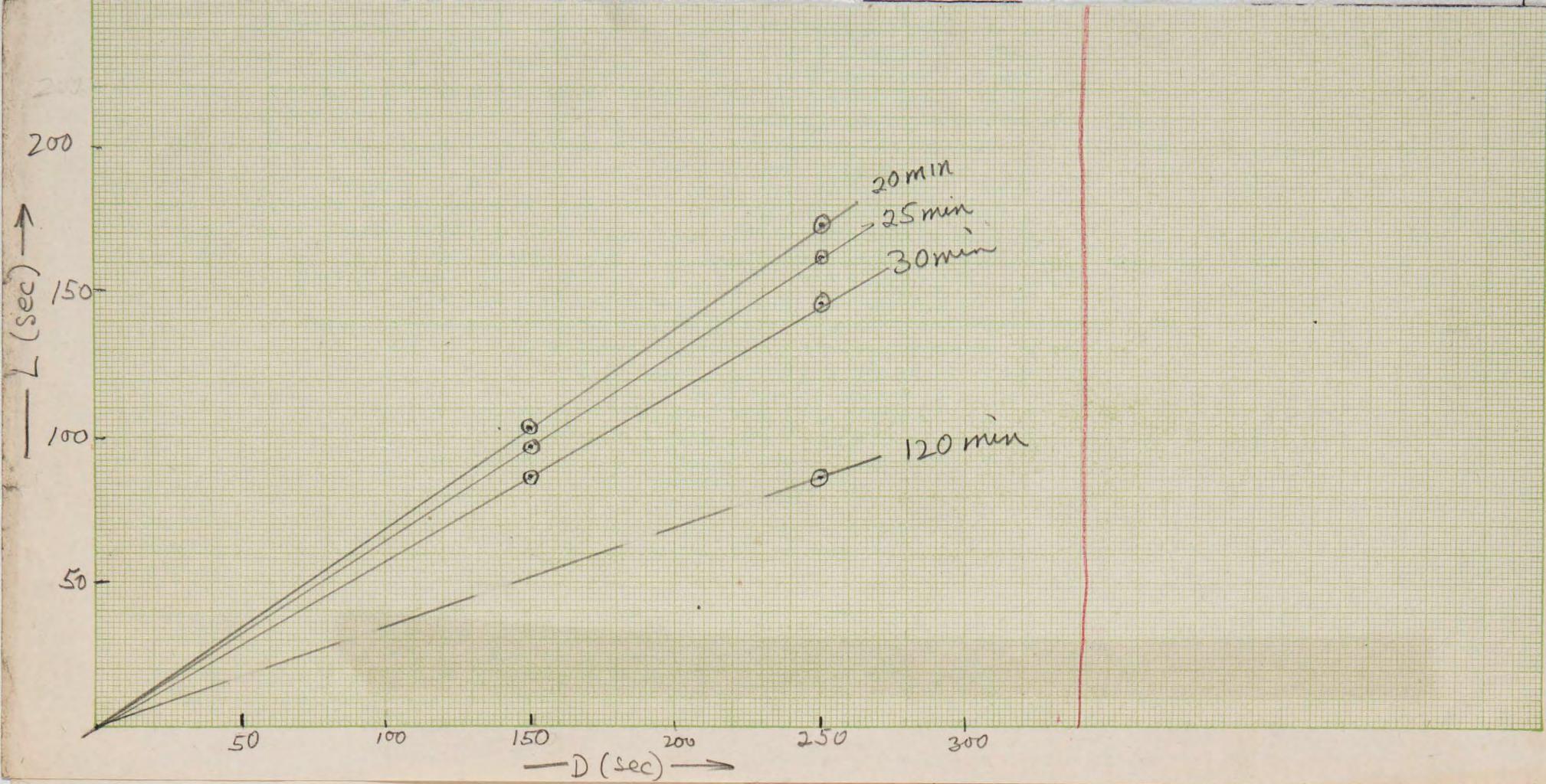


Figure 3

Experiment of June 23, 1949, gives L as a function of the UV dose, D , for 20, 25, and 30 minutes of light reactivation at 8 inches from 1000 watt projection lamp.

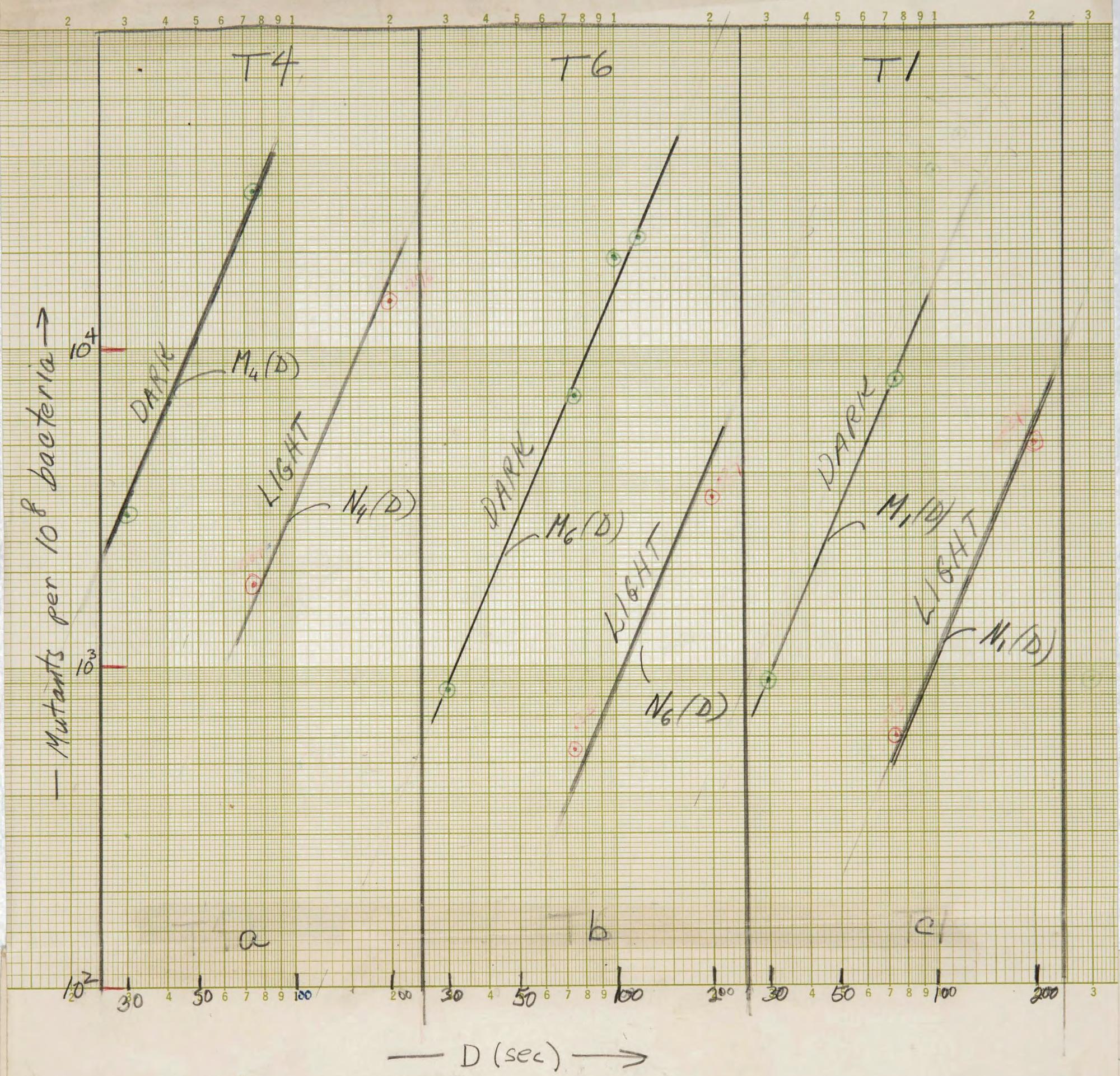


Figure 4 a, b, and c

Experiment of July 2, 1949 gives in log-log plot the number of phage resistant mutants per 10^8 viable bacteria as a function of the UV dose D both without (**DARK**) and with ^(LIGHT) light reactivation for phages T4, T6, and T1 in figures a, b, and c respectively. The bacteria ~~were~~ went through 10 generations in liquid culture prior to assaying for the mutants. The values shown in the graph are corrected for the spontaneous mutants which amounted to 800, 40, and 170 for T4, T6, and T1 respectively.

Jim,

Please separate a, b, and c with lines indicated. Use ~~lighter~~ ~~line to indicate 30, 50, 100, 200 sec in each case.~~

