The strength of the emanation present in the gas on each day is given in Table IV. TABLE IV.

Exposure.	Strength of Emanation.	
First day	476	
Second day	394	
Third day	320	

From an inspection of these values together with the results in Table III. it will be seen, that a direct proportionality exists between the strength of the emanation and the amount of activity excited.

	- 1997	•	
Time in Minutes.	Column I. (First Day) Current.	Column 11. (Second Day) Current.	Column III. (Third Day) Current.
1	110	108	94.8
10	40.2	38.4	36
20	38.7	42	41.1
35	38.8	37.3	40.4
40	37.3	36.1	37.4
45	33.8	36.1	36.7

TABLE V. Excited Radioacticity (Five-minute Exposure).

Table V. contains a few of the results reduced on this basis. The values of the activity obtained in the first day are recorded in Column I. and the intensity of the emanation is assumed to be unity. Columns II. and III. contain the readings obtained on the second and third days corrected to an emanation of unit intensity. The general agreement of the values recorded in the three columns justify the assumption of the law of proportionality.

In the experiments described in this paper the effects found were produced by all the rays given off from the excited body. Experiments are now in progress to investigate these effects still further and especially to determine the decay curves on the basis of β and γ radiations.

182