TABLE III

$KBrO_3$, 20.5; KI, 197.3; HCl, 95.15

t	x	x'	$R_0 \times 10^4$	$K \times 10^{13}$
5	0.45	0.454	908	97
10	0.90	0.915	915	98
20	1.80	1.86	930	99
30	2.75	2.88	960	102
45	3.99	4.30	955	102
60	5.22	5.73	955	102
90	7.53	8.66	962	102

Average value, $R_0 = 936 \times 10^{-4}$

TABLE IV

$KBrO_3$, 20.5; KI, 98.67; HCl, 190.3

t	x	x'	$R_0 \times 10^4$	$K \times 10^{13}$
5	0.92	0.934	1860	100
10	1.85	1.91	1910	102
20	3.62	3.74	1870	100
30	5.39	5.91	1970	105
45	7.75	8.87	1970	105
60	9.76	11.60	1930	102
90	13.93	18.01	2000	106

Average value, $R_0 = 1930 \times 10^{-4}$

Effect of Chlorion and of Atmospheric Oxygen on the Rate

In order to assure myself that the effect of the hydrochloric acid was due entirely to the concentration of the hydrion I made some measurements in which the concentration of the chlorion was doubled by adding sodium chloride. The rate was the same as in the absence of the salt. The addition of very large quantities of potassium chloride, however, retards the oxidation, see Tables IX and X and p. 688.

To find whether the results were affected by access of air,[1] I made some preliminary measurements in duplicate, one of each pair under ordinary conditions, and the other in an atmosphere of carefully purified carbon dioxide.[2] I

[1] Compare Zeit. phys. Chem., 2, 103 (1888), and Gazz. chim. Ital., 20, 382 (1890).

[2] See Dushman: Jour. Phys. Chem., 8 (1904).