

very slightly, due no doubt to the oxidation of the bromion or to the reduction of the chlorate.

Noyes and Scott worked with the potassium salts of bromic acid and hydriodic acid in presence of a constant amount of hydrochloric acid; their constant agrees very closely with my own.

*Magnanini's Measurements*

TABLE XIV  
HBrO<sub>3</sub>, 1.85; HI, 11.11

| <i>t</i> | <i>x</i> | $K \times 10^{13}$ |
|----------|----------|--------------------|
| 5        | 0.82     | 142                |
| 12       | 1.44     | 119                |
| 13       | 1.46     | 116                |
| 21       | 1.84     | 100                |
| 25       | 2.05     | 99                 |
| 41       | 2.72     | 93                 |
| 52       | 2.96     | 91                 |
| 84       | 3.69     | 88                 |
| 91       | 3.80     | 89                 |
| 175      | 4.82     | 86                 |

TABLE XV  
HBrO<sub>3</sub>, 1.85; HI, 11.11; HCl, 11.11

| <i>t</i> | <i>x</i> | $K \times 10^{13}$ |
|----------|----------|--------------------|
| 2        | 0.82     | 99                 |
| 3        | 1.05     | 87                 |
| 9        | 2.35     | 84                 |
| 15       | 3.27     | 85                 |
| 17       | 3.38     | 81                 |
| 28       | 4.38     | 84                 |
| 31       | 4.50     | 83                 |
| 35       | 4.68     | 84                 |
| 40       | 5.10     | 86                 |

TABLE XVI  
HBrO<sub>3</sub>, 1.85; HI, 11.11; HCl, 22.22

| <i>t</i> | <i>x</i> | $K \times 10^{13}$ |
|----------|----------|--------------------|
| 2        | 1.43     | 85                 |
| 6        | 2.98     | 83                 |
| 12       | 4.19     | 80                 |
| 17       | 4.93     | 80                 |
| 18       | 5.06     | 80                 |
| 20       | 5.28     | 81                 |

TABLE XVII  
HBrO<sub>3</sub>, 1.85; HI, 11.11; HCl, 33.33

| <i>t</i> | <i>x</i> | $K \times 10^{13}$ |
|----------|----------|--------------------|
| 2        | 2.03     | 83                 |
| 4        | 3.17     | 82                 |
| 6        | 3.93     | 81                 |
| 8        | 4.52     | 81                 |
| 10       | 4.90     | 80                 |
| 11       | 5.08     | 79                 |

TABLE XVIII  
HBrO<sub>3</sub>, 1.85; HI, 11.11; HCl, 44.44

| <i>t</i> | <i>x</i> | $K \times 10^{13}$ |
|----------|----------|--------------------|
| 2        | 2.55     | 68                 |
| 4        | 3.94     | 70                 |
| 6        | 4.72     | 70                 |
| 7        | 5.15     | 72                 |
| 8        | 5.33     | 72                 |

TABLE XIX  
HBrO<sub>3</sub>, 1.85; HI, 11.11; HNO<sub>3</sub>, 22.22

| <i>t</i> | <i>x</i> | $K \times 10^{13}$ |
|----------|----------|--------------------|
| 2        | 1.37     | 82                 |
| 6        | 2.88     | 78                 |
| 12       | 4.19     | 77                 |
| 17       | 4.84     | 77                 |
| 19       | 5.14     | 78                 |