

TABLE 12

Table 29 of First Paper

 $\bar{I}$  (C), 2.270;  $H_2SO_4$  (D), 1.147;  $H_3AsO_3$  (E), 0.310; V, 0.155

| No. | Reading | $\theta$ | $t$     | $E - t$ | $K_1 \cdot 10^4$ | $K_1' \cdot 10^4$ | $R \cdot 10^4$ | $R_1 \cdot 10^4$ | $K_1'' \cdot 10^4$ | $K_1' \cdot 10^4$ |
|-----|---------|----------|---------|---------|------------------|-------------------|----------------|------------------|--------------------|-------------------|
| 1   | 0.0     | 0.0      | 0.00000 | 0.310   | —                | —                 | —              | —                | —                  | —                 |
| 2   | 0.2     | 9.5      | 0.00092 | 0.309   | —                | —                 | —              | —                | —                  | —                 |
| 3   | 1.2     | 70.0     | 0.00551 | 0.304   | 1.17             | 1.17              | 5.18           | —                | 1.17               | 0.38              |
| 4   | 3.7     | 292.0    | 0.01700 | 0.293   | 0.819            | 0.817             | 5.51           | 0.21             | 0.848              | 0.28              |
| 5   | 13.1    | 991.0    | 0.0602  | 0.250   | 0.938            | 0.986             | 5.69           | 2.96             | 1.50               | 0.53              |
| 6   | 14.8    | 1175.0   | 0.0680  | 0.242   | 0.906            | 0.770             | 4.29           | 3.84             | 1.63               | 0.59              |
| 7   | 16.9    | 1430.0   | 0.0776  | 0.232   | 0.873            | 0.688             | 3.67           | 5.09             | 1.64               | 0.60              |
| 8   | 21.6    | 2470.0   | 0.0989  | 0.211   | 0.675            | 0.433             | 1.96           | 8.60             | 2.17               | 0.82              |
| 9   | 22.4    | 2880.0   | 0.102   | 0.208   | 0.599            | 0.20              | 0.95           | 9.4              | 2.17               | 0.82              |

Reading 67 is proportional to 0.310

TABLE 13

 $\bar{I}$  (C), 2.27;  $H_2SO_4$  (D), 2.29;  $H_3AsO_3$  (E), 0.1473; V, 0.1.

| No. | Reading | $\theta$ | $t$     | $E - t$ | $K \cdot 10^4$ | $K_1 \cdot 10^4$ |
|-----|---------|----------|---------|---------|----------------|------------------|
| 1   | 0.0     | 0.0      | 0.0000  | 0.1473  | —              | —                |
| 2   | 0.3     | 1.25     | 0.0003  | 0.1470  | —              | —                |
| 3   | 3.25    | 16.8     | 0.0034  | 0.1438  | —              | 6.06             |
| 4   | 10.85   | 75.5     | 0.01163 | 0.1357  | 5.4            | 5.21             |
| 5   | 14.0    | 87.5     | 0.01503 | 0.1323  | 5.1            | 4.98             |
| 6   | 21.3    | 133.0    | 0.02287 | 0.1144  | 5.4            | 5.82             |
| 7   | 27.5    | 182.5    | 0.02953 | 0.1178  | 5.1            | 4.88             |
| 8   | 7       | 228.5    | 0.03619 | 0.1111  | 5.2            | 5.46             |
| 9   | 8       | 285      | 0.04059 | 0.1067  | 5.30           | 5.83             |

Average = 5.46

Reading 137.2 is proportional to 0.1473

Correction for direct rate negligible