the equality of the temperature coefficients of the rates of most reactions, it is probable that the ratio will not be much affected by the change from 30° to 100° C.

The replacement of B − 1 by B is, no doubt, responsible for the fall in K when the concentration of the potassium iodide is increased (see below); a term of the form B − *n*, where *n* was some small number would have given better constants; but without experiments on the position of the minimum rate under the condition of Schlundt's measurements, any value selected for *n* would have been purely arbitrary.

By means of the integrated forms of Eq. II. a value of K has been computed from each of Schlundt's measurements; the results are contained in Table 42.[1] With the exception of a few scattered instances, obviously due to errors in the experiments, the lowest of the 153 values is 0.98 and the highest 2.5. In view of the fact that in Schlundt's experiments the ratio between the quantities of acid and salt never reached 3 mols of the former to one of the latter, and that in my own work "*R calc*" differed materially from "*R obs*" when the ratio fell below 5, the constancy of K is at least as good as could have been expected.

Many of the variations, moreover, can be accounted for — qualitatively at least — without introducing new hypotheses. The fall of K when A is increased, for instance (Table 42, 1*a*, 1*b*, 1*c*), which shows that the rate is not quite proportional to the concentration of the potassium chlorate, is in accordance with those of my own experiments in which small quantities of acid were used; it may be ascribed to the influence of the large amount of salt present, either dir[illegible] or by modifying the concentrations of the $\overset{+}{H}$ and $\overset{-}{ClO_3}$ i[illegible] Similarly with the increase of K when C is decreased (3*a*, 3[illegible], 3*d*; 2*d*, 4*c*).

[1] The numbers of the experiments (1*a*, 1*b*, etc.) are those used by Schlundt; 2*a*, 3*a*, and 5*a* were the same as 1*a*. The three figures following (for instance, 1.1.1) express the initial concentrations of the chlorate, iodide, and acid in the units defined on page 97. Under "Pct." is given the amount of iodine liberated as a percent of the total possible (in 1*a*, for instance, 'Pct' 100.*x*, while in 5*c*, "pct" 25.*x*), and under 10^3 K are entered the values of K calculated by Eq. II. and multiplied by 1000.