and a base upon the catalytic decomposition of hydrogen peroxide by the Bredig platinum sol has been examined. As the acid and base, H_2SO_4 and KOH were used, whose concentration ranges were from 10^{-5} to 10^{-1} mol/litre.

(2) The reaction type is not changed by adding the acid, but it deviates from the first order reaction type when the base is added.

(3) The reaction velocity decreases slightly by increasing the concentration of the acid, but, in the case of the base, there is a minimum at about pH 6 and a maximum at pH 10.

(4) The relation between the ζ-potential of colloidal particles and their catalytic activity has been discussed, and the minimum activity has been explained from the minimum of the ζ-potential.

(5) According to the ionic adsorption theory, the difference of the reaction types between the acidic and the basic solutions has been discussed from the standpoint of the surface constitution of the colloid, and it is concluded that the ions adsorbed on the solid surface exert a close influence on the reaction.

In conclusion, the author has great pleasure in expressing his sincere thanks to Professor S. Horiba for his valuable guidance during the course of this research.

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ERRATA.

Second paper of this series by EIJI SUITO, Vol. XV, p. 1 (1941).

Page 5, line 2 from top: *for* $\ln\frac{k_1}{k_2}=ER\frac{T_2-T_1}{T_1T_2}$ *read* $\ln\frac{k_2}{k_1}=E/R\cdot\frac{T_2-T_1}{T_1T_2}$

Page 6, line 2 from bottom in foot note: *for* $Q=23.9$ cal. *read* $Q=23.9$ Kcal.

Paper by REIICHI KONDO and EIJI SUITO, Vol. XV, p. 145 (1941).

Page 148, line 4 from bottom: *for* 85±0.2°C. *read* 85±2°C.

Page 153, line 3 from top: *for* $T=373$°C. *read* $T=373$°K, *i.e.*, $T=100$°C.