TABLE XIII.

Temp.	Concentration.	Spec. Conductivity.
25°C	Water	2.700×10^{-6}
"	AgCl solution	3.368×10^{-6}
"	AgCl sol. along with 4.4×10^{-8}n HNO_3	3.361×10^{-6}
"	8.8×10^{-8} "	3.286×10^{-6}
"	17.7×10^{-8} "	3.375×10^{-6}
"	44.4×10^{-8} "	3.448×10^{-6}
"	88.8×10^{-8} "	3.529×10^{-6}
"	155.5×10^{-8} "	3.682×10^{-6}
"	244.4×10^{-8} "	4.01×10^{-6}

From the above tables it will be seen that as a $\frac{N}{10000}$ solution of nitric acid was added to a dilute solution of silver chloride a drop in the conductivity of the solution occurred at first, but as the nitric acid became more concentrated the conductivity steadily increased.

Experiment VI.—To 75 cc. of redistilled water there was added one drop $\frac{1}{30}$ cc. $\frac{N}{10000}$ HCl, thus giving a 4.4×10^{-8} normal solution of hydrochloric acid. To this solution there was added drop by drop a $\frac{N}{1000}$ solution of $AgNO_3$, and the corresponding conductivities were determined. The variation in conductivity for different concentrations of the silver nitrate is shewn in table XIV, and illustrated by the curve in Fig. XVI.

TABLE XIV.

Temp.	Concentration.	Spec. Conductivity.
25°C	Water	2.418×10^{-6}
"	4.4×10^{-8}n HCl	2.454×10^{-6}
"	HCl sol. along with 4.9×10^{-7}n $AgNO_3$	2.383×10^{-6}
"	9.8×10^{-7} "	2.382×10^{-6}
"	24.5×10^{-7} "	2.454×10^{-6}
"	73.5×10^{-7} "	3.115×10^{-6}
"	147.0×10^{-7} "	4.197×10^{-6}
"	245.0×10^{-7} "	5.625×10^{-6}