

PURPOSE

The purpose of this experiment was to identify the nine unknown solutions by reacting each solution with other solutions one by one. The unknown solutions were identified by examining whether a chemical reaction occurred or not. The solutions were also identified on the basis of difference in the solubilities, chemical properties and the formation of precipitate and its colour after formation.

EXPERIMENTAL TECHNIQUE

In this experiment, nine bottles of the unknown solutions were present on the given station labeled from number 1 to number 9. Each solution was reacted with the other solution one by one by adding 10 drops of one solution and 10 drops of the other solution in a small test tube. For instance solution 1 was reacted with the rest of the solutions (2, 3, 4, 5 etc) separately and the same was done with the solutions 2, 3, 4, 5, 6, 7, 8 and 9. For the reaction between solution 2 and 3 and between 6 and 9, no precipitate was not seen immediately. For these two solutions, a glass rod was used to scratch the inside wall of the test tube to obtain the precipitate if present. The result was recorded on the data sheet. If there was no reaction occurring, it was recorded as no reaction. Similarly if there was formation of precipitate after the reaction, then the obtained colour of the precipitate formed was noted on the data sheet. After every solution tested, the results were compared with the results on pre-lab and on that basis the unknown solutions were identified. **(Reference 1)**