**Abstract**

As there are large number of electroplating industries around the Coimbatore city, where pollution due to Ni(II) is prevailing, the present investigation aims at the removal of Ni(II) from aqueous solution by employing an agro waste material as an efficient adsorbent. The capacity of soaked tamarind seeds(STS) for the removal of Ni(II) has been investigated under different conditions namely particle size, dosage, agitation time, initial metal ion concentration, pH and temperature by Batch adsorption mode. The obtained results reveal that the soaked tamarind seeds is an effective adsorbent for the removal of Ni(II) from aqueous solution. The equilibrium data obtained for the Ni(II)-STS system has been found to fit linearly fo Langmuir, Freundlich and Tempkin adsorption isotherms