

# ABSTRACT

In the present work an attempt has been made to electropolish Nickel and Stainless Steel using non-conventional electrolytes, such as sodium chlorate, sodium Nitrate Sodium Chloride. The solutions of different concentrations of these electrolytes were used current density variations along with the voltage was noted for each concentration. Surface of the electrode was examined at each variation. During electropolishing, in the limiting current density region, anodic dissolution of metal limited that results in leveling and brightening of the metal surface. It was observed that these electrolytes can be successfully utilized for electropolishing with moderate electrolyte velocity.