Programme of Work

Different methods on separation of nickel, palladium, cobalt and copper are reported in literature. These procedures are either very complicated and lengthy or yield results which are not always unambiguous. On the other hand liquid-liquid extraction methods have been claimed by different workers to give excellent results in the case of a large number of metallic cations. Our informations about the application of this versatile method for the aforesaid elements is still poor. In consideration of this an attempt has been made to apply this technique for extraction and separation of Ni(II), Pd(II), Cu(II) and Co(II).

Survey of literature reveals that methods for straight forward gravimetric estimation of cobalt and copper are not widely known, and in gravimetric estimation of nickel and palladium interference of commonly associated ions are frequently very serious. Gravimetric estimation of nickel and palladium as mixed dioxime complex is not common. In consideration of this an attempt has been made to apply one reagent for direct gravimetric estimation of these elements. Properties of the prepared complexes have been studied.