

ABSTRACT

Present study was carried out for the tobramycin Schiff base synthesis by non-classical method (solvent free condensation). Different concentrations of salicylaldehyde from 10-50mM were used for condensation reaction. Structural studies and properties were analyzed by IR, CHN analyzer and X-ray Powder Diffractometer. The IR study indicated the C=N peak in all the products which confirms Schiff base formation. The results of CHN analyzer revealed that percentage of nitrogen decreased by increasing the ratio of salicylaldehyde in the reaction mixture. The percentage yield and melting points of the six salicyldimines were in the range of 63-86% and 412-467K respectively. All the six products prepared were soluble in ethanol, methanol, chloroform, acetone and acetonitrile while insoluble in water. This non-classical condensation method can be recommended for commercial scale production of Schiff bases.