**Abstract**

Nickel plays an important role in metallurgical, electroplating and other chemical industries. About 40% of the nickel produced is used in steel factories, nickel batteries and in the production of some alloys. On the other hand, it may pollute aqueous streams, arising therefore several environmental problems. *Azaridachtaindica* seed shells were evaluated for Ni (II) adsorption. The tests were performed in batch equilibration method. The obtained maximum adsorption capacities were 66.66 mg/g . The FT-IR results showed that the sorbent have different functional groups responsible for nickel ions binding, such as carboxyl, amino, peptide and hydroxide. The morphology of adsorbent surface was analyzed by scanning electron microscopy (SEM) before and after Ni(II) loading.