ABSTRACT

The environment is gradually worsening as a result of the socio-economic activities of mankind. In tannery effluent, presence of chromium and several other organic compounds is highly toxic to many living beings. This project focuses on treating the tannery effluent using phytoremediation, SBR, integrated treatment. The motive of this project is to study the phytoremediation potential of the two plant species – Indian Mustard (Brassica juncea) and Indian lotus (Nelumbo nucifera) to reduce the exceeding chromium levels in the tannery effluent. The experimental study on treating the tannery effluent using the two plant species is done and it is assessed that these species possess the potential to survive in the contaminated medium and they are efficient to be used for the phytoremediation of tannery effluent. The treatment of waste water is carried out using sequential batch reactor. Sequential batch reactor comprises 4 phases such as fill, react, settle and decant. The treatment is carried out for different fill react ratios and cycles. The characteristics of treated sample was analyzed by using standard method and compared with the characteristics of waste water. Efficiencies of each ratio and cycles are calculated.