

Role of membrane surface charge and complexation-ultrafiltration for heavy metals removal: a mini review

ABSTRACT

Membrane technology is a promising water purification unit operation from household use to industrial application owing to its simplicity of operation, efficient recovery and minimum need for chemical and space allocation. Due to that reason, study on the membrane applications have becoming more popular among scientific community nowadays and one of the applications is removal of heavy metal using ultrafiltration (UF). However, a stand-alone UF will be not able to carry out the removal of heavy metals effectively. Certain modification is required in order to enhance its rejection via unique facilitated mechanism. Thus in this review, role of surface charge interaction as well as the method of complexation-ultrafiltration were discussed.