# Biosorption of chromium (VI) by chitosan-immobilized acinetobacter haemolyticus

## Abstract

In this study, the ability of chitosan-immobilized Acinetobacter haemolyticus as biosorbent for chromium (VI) biosorption in batch system was investigate. Optimized parameter namely pH, contact time, biosorbent dosage and initial metal concentration obtained from the experiment was then applied for electroplating wastewater treatment. Biosorption using chitosan-immobilized Acinetobacter haemolyticus at pH 3, 8 hours contact time, 3% (w/v) of biosorbent dosage with 100 mg L 1 initial metal concentration resulted in maximum chromium (VI) uptake of 0.2 mg g 1. Using electroplating wastewater, the biosorption capacity of the chitosan immobilized Acinetobacter haemolyticus was 0.27 mg g 1 at pH 3 which is higher than unmodified pH.