Biosorption study From Table 2 the biosorption of Pb by S. oneidensis decreased with the increasing of the incubation period for all concentrations.Hence, the percentage removal of metal is dependent on the initial metal concentration forsolutions.And this agrees with Giri (2012), who reported that, maximum removal of As (III and Cr (VI) by living cells of B. cereus took place within a few minutes and equilibrium is reached at 30 min.From the results of present study S. oneidensis was able to absorb higher concentration of Pb than Cd, Banik et al., (2013) reported that Pb does not create any extraordinary toxicity to microorganisms which accumulate Pb through the general biosorption process.The change in the rate of removal with time might be due to the fact that initially all sorbent sites are vacant, and the solution concentration gradient was high, but as time passes, the number of sites on the sorbent filled up .and the sorbet also increases.The high absorption