There is substantial evidence that as water moves through a water distribution system its quality can deteriorate through interactions between the bulk phase and the pipe wall. One of the most serious aspects of water quality deterioration, in a network, is the loss of disinfectant residual which can weaken the barrier against microbial contamination. A factor which is increasingly of concern is internal corrosion of the pipe wall material and its effect on water quality. Internal corrosion is the deterioration of the inside all or lining of a pipe caused by reactions with water. It can be the result of physical action that erodes the lining or surface coating of a pipe, chemical dissolution that leaches a pipe's lining or wall material, or electrochemical reactions that remove metal from the wall of the pipe.