Mesoporous TiO_2 films with variable thickness were prepared by dip-coating. Two kinds of sols were used, sol 1 and sol 2, which were separately tested and compared. The activity of samples of these sols was tested employing photocatalytic degradation of 1.10^{-4} mol.dm⁻³ 4-chlorphenol. The efficiency of the degradation of 4-chlorphenol was increasing proportionately with each additional layer. The optimum turned out to be three layers.