

a 2008 0278

The invention relates to a process for nanodispersed titanium dioxide obtaining that may be used in processes for photocatalytic treatment and neutralization of natural and sewage waters, as pigment, as well as catalyst in different branches of industry.

The process is carried out by electrochemical dissolution of metal titanium in alkaline NaOH and NaCl solution in the following concentration, in g/L:

NaOH 80...100

NaCl 30...40,

at the temperature of 70...90°C under the action of the periodic current of industrial frequency with inverse controlled pulse, at the anodic current density of 1.0...3.0 A/cm² and the ratio to the cathodic current of 1:(0.1...0.5), with subsequent washing of the formed hydrogel and thermal treatment at 400...450°C during 1.0...1.5 hours.

Claims: 1