

STABLE NANO TITANIA SOLS AND A PROCESS FOR THEIR PRODUCTION

Abstract

The present invention provides a process for producing a concentrated aqueous nano titania sol in the mild pH range (4.0 to 10.0) comprising contacting an acidic nano titania sol with a dispersant and with an alkalizing agent, and subjecting the nano titania sol to membrane filtration until the nano titania sol contains more than 300 g Ti (3/4 nanoparticles/dm³). The nano titania sol may further be subjected to a coating treatment within any of the steps of the above described process. The concentrated aqueous nano titania sol of this disclosure is suitable for use in a variety of applications, including providing UV protection and photochemically degrading or inactivating contaminants.

No Fig.