

Title (en)

A METHOD FOR PRODUCING IRON OXIDE NANO PARTICLES

Title (de)

VERFAHREN ZUR HERSTELLUNG VON EISENOXIDNANOPARTIKELN

Title (fr)

PROCÉDÉ DESTINÉ À PRODUIRE DES NANOPARTICULES D'OXYDE DE FER

Publication

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Application

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Abstract (en)

[origin: WO2006001018A2] The invention provides a method for the formation of small-size iron oxide particles comprising the steps of preparing a starting aqueous solution comprising at least one of ferric ions and complexes thereof, at a concentration of at least 0.1% w/w iron and a pH greater than about 1.5; maintaining said solution at a temperature lower than 55°C for a retention time in which hydrolysis takes place, the extent of said hydrolysis being sufficient to decrease the pH by at least 0.2 units, wherein said time does not exceed 14 days, to form a system containing a modified solution; and adjusting the conditions in said system by at least one of the steps of heating the modified solution to elevate the temperature thereof by at least 10°C; elevating the pH of the modified solution by at least 0.3 units; and diluting the modified solution by at least 20%; whereby there are formed particles, wherein the majority of the particles formed are between about 2nm and about 500nm in size.

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