

Title (en)

METHOD OF PERFORMING CHEMICAL PRECIPITATION IN WATER AND WASTE WATER TREATMENT PLANTS

Title (de)

VERFAHREN ZUR DURCHFÜHRUNG VON CHEMISCHER FÄLLUNG IN WASSER- UND ABWASSERAUFBEREITUNGSANLAGEN

Title (fr)

PROCÉDÉ DE CONDUITE D'UNE PRÉCIPITATION CHIMIQUE DANS DES USINES DE TRAITEMENT DE L'EAU ET DES EAUX USÉES

Publication

EP 3585735 A4 20201118 (EN)

Application

EP 18757845 A 20180221

Priority

- SE 1700035 A 20170221
- SE 2018050169 W 20180221

Abstract (en)

[origin: WO2018156075A1] A method of performing a precipitation process in a water or waste water treatment plant, characterized in that polymerized trivalent iron ions are used as coagulant and that the precipitation process comprises the polymerization of the trivalent iron ions to poly iron complexes in situ by the addition of OH-ions to trivalent iron ions, prior to the use of the poly iron complexes in the precipitation process,, whereby the polymerization is optimized by regulation of on one or some of the parameters reaction temperature, retention time and iron concentration so that for a given basicity the maximum charge of the complex is obtained while at the same time the flocculation ability of the complex is not inactivated, and whereby the degree of pollution in outgoing water from the precipitation step of the treatment plant is measured by on-line analysis of one or some of the parameters turbidity, colour, phosphorous, COD and TOC. A system for providing polymerized trivalent iron ions for use as coagulant in a water or waste water treatment plant is also provided.

IPC 8 full level

C02F 1/52 (2006.01); **C02F 1/66** (2006.01)

CPC (source: EP SE)

C02F 1/5209 (2013.01 - EP SE); **C02F 1/5245** (2013.01 - SE); **C02F 1/5236** (2013.01 - EP); **C02F 1/5281** (2013.01 - EP); **C02F 1/66** (2013.01 - EP); **C02F 2209/08** (2013.01 - EP); **C02F 2209/11** (2013.01 - EP); **C02F 2209/18** (2013.01 - EP); **C02F 2209/20** (2013.01 - EP); **C02F 2209/40** (2013.01 - EP)

Citation (search report)

- [X1] US 5785862 A 19980728 - GRAHAM NIGEL JOHNATHAN DOUGLAS [GB], et al
- [XA] US 3812032 A 19740521 - CHAPPEIL G
- [IA] CN 104098165 A 20141015 - XU SUOLONG
- See references of WO 2018156075A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2018156075 A1 20180830; EP 3585735 A1 20200101; EP 3585735 A4 20201118; SE 1700035 A1 20180822; SE 540532 C2 20180925

DOCDB simple family (application)

SE 2018050169 W 20180221; EP 18757845 A 20180221; SE 1700035 A 20170221