Title (en)

IMPROVED AQUEOUS PHASE OXIDATION PROCESS

Title (de)

VERBESSERTES VERFAHREN ZUR OXIDATION IN WÄSSRIGER PHASE

Title (fr)

PROCÉDÉ D'OXYDATION EN PHASE AQUEUSE AMÉLIORÉ

Publication

EP 2414097 A2 20120208 (EN)

Application

EP 10711122 A 20100323

Priority

- US 2010028340 W 20100323
- US 41641209 A 20090401
- US 41641909 A 20090401
- US 41642409 A 20090401
- US 41643109 A 20090401
- US 41643809 A 20090401

Abstract (en)

[origin: WO2010120450A2] An improved oxidization process may be used to oxidize a wide variety of feedstocks.Oxidation takes place in a reactor where the feedstock is mixed with an oxidizing acid, such as nitric acid. The reaction mixture may also include a secondary oxidizing acid such as sulfuric acid as well as water and/or dissolved and mechanically mixed oxygen gas. The reactor may be maintained at an elevated pressure such as at least approximately 2070 kPa or desirably at least approximately 2800 kPa. The temperature of the reaction mixture may be maintained at no more than 210°C, In the various embodiments described herein, the process may include: combining recycled effluent from the reactor with the feedstock, combining one or more oxidizing acids with the feedstock, comminuting the feedstock to reduce the size of the particles, feeding the feedstock into the high pressure reactor at an approximately constant feed rate, dispersing oxygen gas from the headspace of the reactor into the reaction mixture, and/or removing all or almost all of the gas from the reactor through the liquid effluent.

IPC 8 full level

B01J 19/00 (2006.01); **C02F 1/72** (2006.01); **C02F 11/06** (2006.01)

CPC (source: EP KR)

B01J 19/0006 (2013.01 - KR); **C02F 1/42** (2013.01 - KR); **C02F 1/727** (2013.01 - KR); **C02F 11/06** (2013.01 - EP KR); C02F 1/42 (2013.01 - EP); C02F 1/72 (2013.01 - EP); C02F 1/727 (2013.01 - EP); C02F 2209/005 (2013.01 - EP KR); C02F 2209/02 (2013.01 - EP KR); C02F 2209/03 (2013.01 - EP KR); C02F 2209/05 (2013.01 - EP KR); C02F 2209/06 (2013.01 - EP KR)

Citation (search report)

See references of WO 2010120450A2

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