

Title (en)

NITRIC OXIDE GENERATION PROCESS CONTROLS

Title (de)

STEUERUNG FÜR STICKOXIDERZEUGUNGSPROZESS

Title (fr)

COMMANDES DE PROCESSUS DE GÉNÉRATION D'OXYDE NITRIQUE

Publication

EP 4229002 A1 20230823 (EN)

Application

EP 21881244 A 20211015

Priority

- US 202063093040 P 20201016
- US 2021055318 W 20211015

Abstract (en)

[origin: CN116547234A] The present disclosure describes systems and methods for controlling electrical generation of nitric oxide. In some aspects, a system for generating nitric oxide includes a plasma chamber containing two or more electrodes in communication with a resonant high voltage circuit configured to send a signal to the plasma chamber to generate nitric oxide in a product gas from a flow of reactant gas; and a controller configured to generate a pulse width modulated signal having a plurality of harmonic frequencies to excite the resonant high voltage circuit. The controller is configured to adjust a duty cycle of the pulse width modulation signal, the controller selecting the duty cycle based on a target voltage before plasma formation and a target current in the plasma chamber after plasma formation.

IPC 8 full level

C01B 21/24 (2006.01); **C01B 21/20** (2006.01); **C01B 21/30** (2006.01); **C01B 21/32** (2006.01)

CPC (source: EP)

C01B 21/28 (2013.01); **C01B 21/30** (2013.01); **H05H 1/466** (2021.05); **H05H 2242/22** (2021.05); **H05H 2245/10** (2021.05)

Citation (search report)

See references of WO 2022082072A1

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

CN 116547234 A 20230804; EP 4229002 A1 20230823

DOCDB simple family (application)

CN 202180083105 A 20211015; EP 21881244 A 20211015