

Title (en)
COVERED CAVITY KILN PYROLYZER

Title (de)
PYROLYSATOR EINES ABGEDECKTEN HOHLRAUMOFENS

Title (fr)
PYROLYSEUR À FOUR À CAVITÉ RECOUVERTE

Publication
EP 4103882 A1 20221221 (EN)

Application
EP 20914858 A 20200826

Priority

- US 202062964737 P 20200123
- US 202016912225 A 20200625
- US 202017002215 A 20200825
- US 2020048013 W 20200826

Abstract (en)
[origin: WO2021150274A1] The invention presents a covered cavity kiln pyrolyzer with modulated means of rotation, to promote mixing and exposure of the biomass to heat, thereby allowing complete and efficient pyrolysis of biomass therein. The invention has a portal arrangement for simultaneous entry of fuel and air alongside the exit of emissions and flames to a separate hood structure. In addition to rotational modulation for mixing, the rotational capabilities of the kiln also permit the removal of processed charcoal when the portal is turned downward. The invention also has a system of internal prongs for mixing and sifting removal of char, as well as automated fuel delivery mechanisms and a system of openings to allow insertion of pipes and sensors into the kiln for monitoring and for additional delivery of reagents for better modulation and efficiency by a user during the pyrolyzation process.

IPC 8 full level
F23G 5/20 (2006.01); **C10J 3/48** (2006.01); **C10J 3/82** (2006.01); **F23G 5/44** (2006.01); **F23G 7/10** (2006.01)

CPC (source: EP)
C10B 1/10 (2013.01); **C10B 49/04** (2013.01); **C10B 53/02** (2013.01); **C10J 3/005** (2013.01); **F23G 5/0276** (2013.01); **F23G 5/20** (2013.01); **F23G 5/44** (2013.01); **F23G 7/10** (2013.01); **F23G 2201/30** (2013.01); **F23G 2203/208** (2013.01); **Y02E 50/10** (2013.01)

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)
WO 2021150274 A1 20210729; CA 3165690 A1 20210729; EP 4103882 A1 20221221

DOCDB simple family (application)
US 2020048013 W 20200826; CA 3165690 A 20200826; EP 20914858 A 20200826