(19) INDIA

(22) Date of filing of Application :06/12/2022

(43) Publication Date: 30/12/2022

(54) Title of the invention: APPARATUS AND METHOD FOR MICROWAVE TORREFACTION OF BIOMASS

:C10L0005440000, C10L0009080000, (51) International C10B0053020000, A61L0002100000, classification H04L0027000000 (86) International :NA Application No :NA Filing Date (87) International : NA Publication No (61) Patent of Addition :NA to Application Number :NA Filing Date (62) Divisional to

:NA

:NA

(71)Name of Applicant:

1)Chitkara University

Address of Applicant: Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ------

2) Chitkara Innovation Incubator Foundation

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor: 1)SINGH, Varinder

2)SALUJA, Nitin Kumar

3)SINGH, Gurjinder

4)GHOSH, Debarshi

Address of Applicant: Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ------

(57) Abstract:

Application Number

Filing Date

The present disclosure discloses an apparatus (100) for torrefaction of biomass, the apparatus may include a container (102) to receive biomass, a flash drying unit 104 attached to the container to dry the received biomass, and a reactor (106) may be configured to receive the dried biomass from the container. Upon heating, solid biomass is produced and torrgas is generated in the reactor. Additionally, the apparatus (100) includes a control unit (112) operatively coupled to the flash drying unit and the reactor. The control unit may be configured to control temperature while heating the biomass in the flash drying unit and the reactor, corresponding to the received biomass.

No. of Pages: 19 No. of Claims: 10