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(71) Applicant (for all designated States except US):

EXXONMOBIL RESEARCH AND ENGINEERING COMPANY [US/US]; 1545 Route 22 East, P. O. Box 900, Annandale, NJ 08801-0900 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **REYES, Sebastian,**

C. [CL/US]; 9 Mohawk Trail, Branchburg, NJ 08876 (US). **NI, Zheng** [US/US]; 11 School Street, Apt. 49, Clinton, NJ 08809 (US). **PAUR, Charanjit, S.** [IN/US]; 222 E. Westfield Avenue, Apt. B-2, Roselle Park, NJ 07204 (US). **KORTUNOV, Pavel** [RU/US]; 155 Broad Street, Apt. 25, Flemington, NJ 08822 (US). **ZENGEL, John** [US/US]; 40 Overlook Drive, Clinton, NJ 08809 (US). **DECKMAN, Harry, W.** [US/US]; 2 Woods Edge Court, Clinton, NJ 08809 (US).

(74) Agents: **BAKUN, Estelle, C.** et al.; Exxonmobil Research And Engineering Company, 1545 Route 22 East, P. O. Box 900, Annandale, NJ 08801-0900 (US).

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(54) Title: SEPARATION OF CARBON DIOXIDE FROM NITROGEN UTILIZING ZEOLITIC IMIDAZOLATE FRAMEWORK MATERIALS

(57) Abstract: The present invention relates to the selective separation of carbon dioxide ('CO₂') from nitrogen ('N₂') in streams containing both carbon dioxide and nitrogen utilizing a zeolitic imidazolate framework ('ZIF') material. Preferably, the stream to be separated is fed to the present process in a substantially gaseous phase. In preferred embodiments, the current invention is utilized in a process to separate carbon dioxide from combustion gas (e.g., flue gas) streams preferably for sequestration of at least a portion of the carbon dioxide produced in combustion processes.



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