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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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