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

(72) Inventors: DECKMAN, Harry, W.; 2 Woods Edge Court, Clinton, NJ 08809 (US). RAVIKOVITCH, Peter, I.; 15 Exeter Court, Princeton, NJ 08540 (US). KAMAKOTI, Preeti; 16 Summit Avenue, Apt. 2, Summit, NJ 07901 (US). YOON, Chris; 15 Paddock Court, Asbury, New Jersey 08802 (US).

(74) Agents: WEISBERG, David, M. 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: SELECTIVATION OF ADSORBENTS FOR GAS SEPARATION

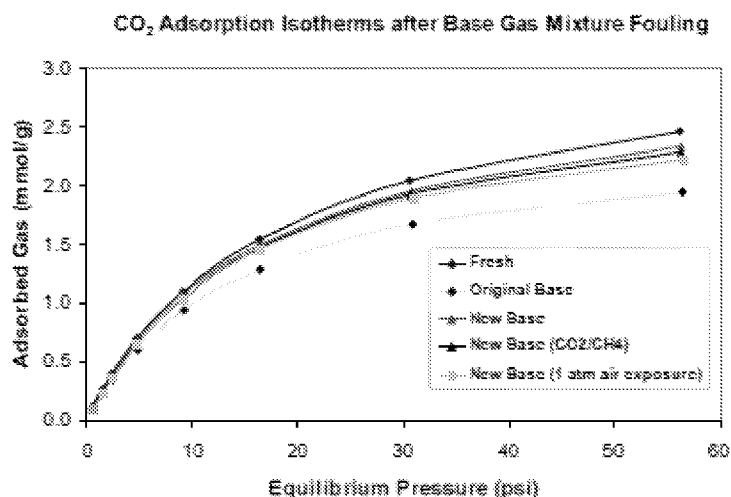


FIG. 3

(57) Abstract: Systems and methods are provided for improving separation of gas phase streams using an adsorbent, such as 8-member ring zeolite adsorbents or DDR type zeolite adsorbents. Suitable gas phase streams can include at least one hydrocarbon, such as methane or a hydrocarbon containing at least one saturated carbon-carbon bond, and at least one additional component, such as CO₂ or N₂. The selectivity of the adsorbent is improved by selectivating the adsorbent with one or more barrier compounds. The presence of the barrier compounds is believed to alter the relative ability of potential adsorbates to enter into and/or move within the pores of the adsorbent.



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