U.S. DEPARTMENT OF COMMERCE Form PTO-1595 (Rev. 09/04) OMB No. 0651-0027 (exp. 6/30/2005) United States Patent and Trademark Office RECORDATION FORM COVER SHEET PATENTS ONLY To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. Name of conveying party(ies)/Execution Date(s): 2. Name and address of receiving party(ies) Name: Air Products and Chemicals, Inc. Matthew James LaBuda 11/30/2006 Timothy Christopher Golden 11/29/2006 Internal Address: Patent Department Roger Dean Whitley 11/28/2006 Street Address: 7201 Hamilton Boulevard Execution Date(s) Additional name(s) of conveying party(ies) attached? Yes V No 3. Nature of conveyance: City: Allentown ✓ Assignment Merger Security Agreement Change of Name State: PA Government Interest Assignment Country: USA Zip: 18195-1501 Executive Order 9424, Confirmatory License Other Additional name(s) & address(es) attached? ☐ Yes No 4. Application or patent number(s): This document is being filed together with a new application. A. Patent Application No.(s) B. Patent No.(s) 11/542.948 6. Total number of applications and patents 5. Name and address to whom correspondence concerning document should be mailed: involved: Ruth Ann Borst Name: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00 Internal Address: Legal Assistant Authorized to be charged by credit card Patent Dept-Dkt# 06923N USA ✓ Authorized to be charged to deposit account Enclosed Street Address: 7201 Hamilton Boulevard None required (government interest not affecting title) 8. Payment Information City: ____ Allentown a. Credit Card Last 4 Numbers State: PA Zip; 18195-1501 Expiration Date _____ Phone Number: 610-481-8761 b. Deposit Account Number 01-0493 Fax Number: 610-481-7083 Authorized User Name ____ Email Address: borstra@airproducts.com

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9. Signature:

Anne B. Kiernan

Docket # 06923N USA

<u>ASSIGNMENT</u>

For value received, we, Matthew James LaBuda, Timothy Christopher Golden and Roger Dean Whitley, hereby sell, assign, and transfer to **AIR PRODUCTS AND CHEMICALS, INC.**, a corporation of the State of Delaware, having an office at 7201 Hamilton Boulevard, Allentown, PA 18195-1501, the entire right, title, and interest in and to the invention relating to

PERFORMANCE STABILITY IN SHALLOW BEDS IN PRESSURE SWING ADSORPTION SYSTEMS

described in our application for Letters Patent of the United States (identified by Docket No. 06923N USA) executed of even date herewith, in and to all Letters Patent which may be issued upon said application, in and to any divisional or reissue applications based thereon, and in and to all Letters Patent upon said invention or improvements which may be granted in foreign countries. We hereby also assign and convey to said **AIR PRODUCTS AND CHEMICALS**, **INC.**, all the rights accruing to us by virtue of the International Convention for the Protection of Industrial Property (Art. 4), including the right to apply for and to have patents issued in its own name.

And we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and the Officials of the Patent Offices of all other countries to issue the Letters Patent of their respective countries to said **AIR PRODUCTS AND CHEMICALS**, **INC.**, as assignee of the entire right, title, and interest in and to the same.

And we hereby promise and agree to execute all papers and perform all acts necessary to secure to and vest in said **AIR PRODUCTS AND CHEMICALS, INC.**, its successors and assigns, the rights conveyed as herein set forth.

(L.S.)

Matthew James Labuda

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Timothy Christopher Golden

29 November 2008

Date G (A)

Roger Dean Whitley

28 November 200

Date