Docket No.: KNS0002-US U.S. DEPARTMENT OF CO FORM PTO-1595 (Modified) **REC** 01-06-2004 (Rev. 03-01) Patent and Trademark Office OMB No. 0651-0027 (exp.5/31/2002) P08A/REV03 Tab settings → → To the Director of the United States Patent and Trauerial 02.63.9088......ed original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies); **Govind Sharan GUPTA** Name: COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH Address: **RAFI MARG** Yes 🛛 No Additional names(s) of conveying party(le 3. Nature of conveyance: ☐ Merger City: NEW DELHI 110001 State/Prov.: \_\_\_\_\_ ☐ Security Agreement ☐ Change of Name Country: INDIA □ Other Execution Date: **DECEMBER 1, 2003** ☐ Yes ⊠ No Additional name(s) & address(es) 4. Application number(s) or patent numbers(s): If this document is being filed together with a new application, the execution date of the application is: B. Patent No.(s) Patent Application No. Filing date **JULY 29, 2003** 10/628,289 ☐ Yes ☒ No Additional numbers 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: concerning document should be mailed: Name: MICHAEL D. BEDNAREK 7. Total fee (37 CFR 3.41):....\$ 40.00 32,329 Registration No. ☐ Enclosed - Any excess or insufficiency should be credited or debited to deposit account Address: SHAW PITTMAN LLP Authorized to be charged to deposit account. 8. Deposit account number: 1650 TYSONS BOULEVARD 늄 50-1390 City: MCLEAN State/Prov.: VA (Attach duplicate copy of this page if paying by deposit account) ZIP: 22102 Country: US DO NOT USE THIS SPACE Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is æ∰ue copy of the original document. DECEMBER 3 MICHAEL D. BEDNAREK Name of Person Signing Signature Total number of pages including cover sheet, attachments, and

Mail documents to be recorded with required cover sheet information to:

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DO Roy 1450 Alexandria VA 22313 1450

**PATENT** 

**REEL: 014847 FRAME: 0139** 

## **ASSIGNMENT**

WHEREAS, Govind Sharan Gupta, residing at c/o Indian Institute of Science, Bangalore, Karnatka, India 560 012, (hereinafter "Assignor") has invented certain new and useful improvements in

## PREDICTION OF CAVITY SIZE IN PACKED BED SYSTEMS USING NEW CORRELATIONS AND MATHEMATICAL MODEL

for a full description of which, reference is here made to an application for Letters

Patent of the United States of America

Executed concurrently herewith

Executed on

Serial. No. 10/628,289, filed July 29, 2003

in the U.S. Patent and Trademark Office and to U.S. provisional patent application(s)

Serial. No. , filed

in the U.S. Patent and Trademark Office; and

WHEREAS, COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH an Indian registered body incorporated under the Registration of Societies Act (Act XXI of 1860) having its principal office and place of business at Rafi Marg, New Delhi 110 001, India (hereinafter "Assignee") is desirous of acquiring the entire right, title, and interest in, to, and under said invention and application above identified, and in, to, and under any Letters Patent that may be obtained for said invention, together with all foreign rights corresponding thereto, as hereinafter more fully set forth.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that, for good and valuable and legally sufficient consideration, the receipt of which by Assignor

PATENT REEL: 014847 FRAME: 0140

**DOCKET NO. KNS0002-US** 

**ASSIGNMENT** 

from Assignee is hereby acknowledged, Assignor has agreed to sell, assign, and transfer and by these presents does hereby, sell, assign, and transfer unto Assignee the entire right, title and interest in, to, and under said invention and application above identified and Letters Patent of the United States of America that may be obtained in respect thereof; any corresponding applications for Letters Patent and Letters Patent therefor in all other areas of the world; and any reissues, extensions, substitutions, confirmations, divisions, and continuations of any of the foregoing (hereinafter "Invention Rights"), to have and to hold for the sole and exclusive use and benefit of Assignee forever.

Assignor hereby covenants and agrees, for himself and for his respective legal representatives, to assist and cooperate with Assignee in the preparation and prosecution of any applications included within the Invention Rights and in the prosecution or defense of any interference, opposition, or other proceeding that may arise in connection with any applications or Letters Patent included within the Invention Rights and further to execute and deliver to Assignee any and all additional papers that may be requested by Assignee for the purpose of implementing the terms of this ASSIGNMENT.

Assignor hereby authorizes and empowers Assignee to invoke and claim for any applications or Letters Patent included within the Invention Rights the benefit of any rights to which Assignor might be entitled under international law or under the laws of any particular country (such as, without limitation, the right of priority provided by the International Convention for the Protection of Industrial Property, as amended) and to invoke and claim said rights without further written or oral authorization from Assignor.

Assignor hereby consents that a copy of this ASSIGNMENT shall be deemed a full legal and formal equivalent of any assignment, consent to file, or like document that may be required in any particular country for any purpose and more particularly in proof

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of the right of Assignee to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended.

Assignor covenants and agrees that this ASSIGNMENT and all of the terms hereof shall inure to the benefit of the successors, assigns, legal representatives, or nominees of Assignee, without further written or oral authorization from Assignor.

Assignor hereby authorizes and requests Assignee to fill in the following blanks specifying the United States Serial No. and filing date for said application above identified:

U.S. Serial No.: 10/628,289

Filed: July 29, 2003

but Assignee's failure to do so shall have no bearing whatsoever upon the validity or legal effect of this ASSIGNMENT.

Assignor hereby authorizes and requests the Commissioner of Patents and the United States Patent and Trademark Office to issue Letters Patent to Assignee in accordance with the terms of this ASSIGNMENT.

SIGNATURE: G.S. Cuff.

ME:

**RECORDED: 12/30/2003** 

GOVIND SHARÁN GUPTA

Document #: 1259695 v.1

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Date: 01/12/03