

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 November 2005 (03.11.2005)

PCT

(10) International Publication Number
WO 2005/102500 A2

(51) International Patent Classification⁷: **B01D 53/02**

(21) International Application Number:
PCT/IL2005/000439

(22) International Filing Date: 21 April 2005 (21.04.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
161546 21 April 2004 (21.04.2004) IL

(71) Applicant (for all designated States except US):
ANGSTORE TECHNOLOGIES LTD. [IL/IL]; P.O.Box
7284, 78182 Ashkelon (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GINZBURG, Yuri**
[IL/IL]; 15 Mishol Ha-Veradim St., 44853 Ginot Shome-
ron (IL). **BEILIN, Vadim** [IL/IL]; 12/14 Eli Cohen, 43315
Raanana (IL). **FOUX, Baruch** [IL/IL]; 76/12 Moshe
Dayan, 97570 Jerusalem (IL). **ZAIDENBERG, Lev**
[IL/IL]; 56 Pardes Meshutaf, 43356 Raanana (IL).

(74) Agent: **FRIEDMAN, Mark**; 7 Jabotinsky St., 52520 Ra-
mat Gan (IL).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW.

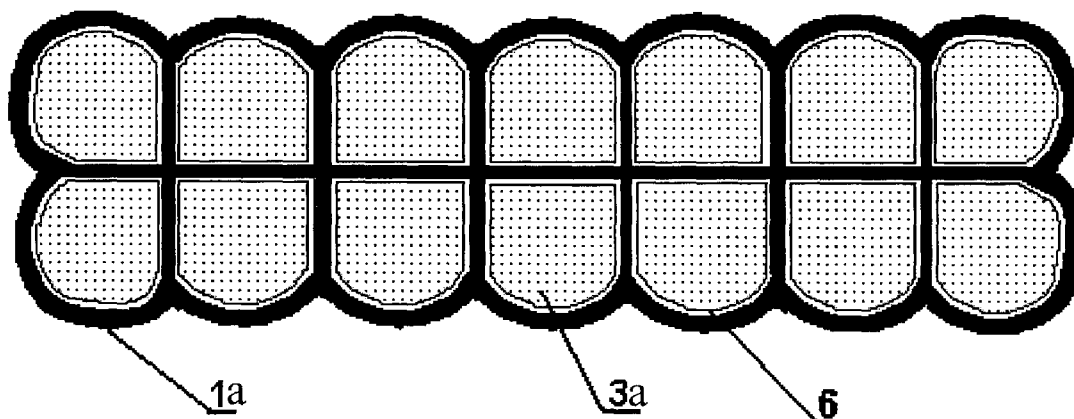
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: STORAGE SYSTEMS FOR ADSORBABLE GASEOUS FUEL AND METHODS OF PRODUCING THE SAME



(57) Abstract: A storage system for an absorbing gas including a plurality briquette units situated within the storage tank is disclosed. In some embodiments, each briquette unit includes a liner or open vessel, and compressed gas-absorbing particulate matter associated with the liner for external support. In some embodiments, the liner or vessel maintains the form of the briquette unit. The liner or vessel do not form a pressure tight vessel, and in some embodiments, the local pressure rating of the liner or vessel is less than the gas pressure within the storage tank. Exemplary gas-absorbing materials include but are not limited to methane and hydrogen adsorbing materials such as activated carbon, zeolite, and other appropriate hydrocarbon gas and/or hydrogen adsorbing materials. Optionally, each briquette unit includes a wrapper for preventing circulation of said particulate matter within the storage tank. Optionally, the storage system includes a mechanism for supplying or removing heat to at least one briquette unit. Furthermore, a method for manufacturing any of the aforementioned gas storage systems is disclosed. Some embodiments of the present invention provide methane-powered motor vehicles including but not limited to automobiles, buses, trucks and ships including a storage system with compressed methane-adsorbing particulate matter.



WO 2005/102500 A2