

12/08/03
200 805117 4

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



162162

(43) International Publication Date
29 August 2002 (29.08.2002)

PCT

(10) International Publication Number
WO 02/066366 A1

(51) International Patent Classification⁷: **B67D 5/00**

(21) International Application Number: PCT/US02/04208

(22) International Filing Date: 14 February 2002 (14.02.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/783,919 15 February 2001 (15.02.2001) US

(71) Applicant (for all designated States except US): **ADVANCED TECHNOLOGY MATERIALS, INC.**
[US/US]; 7 Commerce Drive, Danbury, CT 06810 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MCMANUS, James, V.** [US/US]; 7 Abbott Street, Danbury, CT 06810 (US). **WODJENSKI, Michael, J.** [US/US]; 17 Brookside

Avenue, New Milford, CT 06776 (US). **JONES, Edward, E.** [US/US]; 155 Keeler Road, Bridgewater, CT 06752 (US).

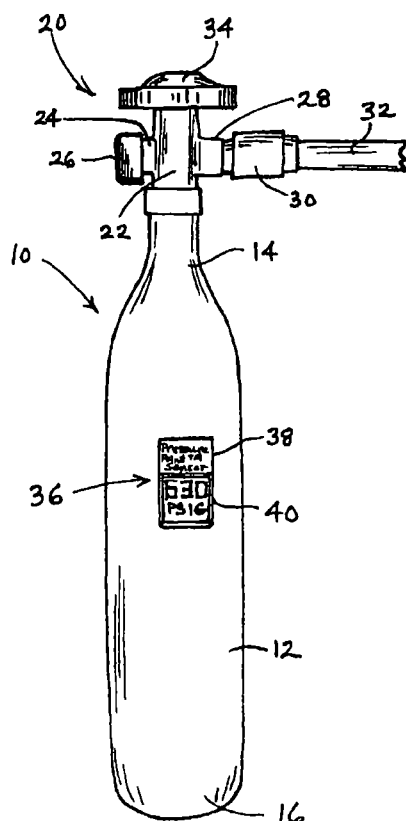
(74) Agent: **ZITZMANN, Oliver, A., M.**; Advanced Technology Materials, Inc., 7 Commerce Drive, Danbury, CT 06810 (US).

(81) Designated States (national): AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent

[Continued on next page]

(54) Title: FLUID VESSEL WITH EX SITU STRAIN GAUGE MONITOR



(57) Abstract: A fluid containment system (10) including a vessel (12) for containing a fluid that is discharged from the vessel (12) in use or operation of the system (10). A pressure monitoring assembly (36) including a strain-responsive sensor (38) is disposed on an exterior wall surface of the vessel (12), to sense dynamic strain on the wall surface of such vessel that is incident to discharge of fluid from the vessel, and to responsively output a pressure-indicative response (40). Such arrangement is particularly useful in application to fluid storage and dispensing vessels containing interiorly disposed pressure regulator assemblies and holding liquefied gases or compressed gases, e.g., for use in semiconductor manufacturing operations.

WO 02/066366 A1



ACTION

WO 02/066366 A1

(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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

Published:

— *with international search report*