20000724035

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G01N 21/25	A2	(11) International Publication Number: WO 00/02035
		(43) International Publication Date: 13 January 2000 (13.01.00)

(21) International Application Number: PCT/US99/14670

(22) International Filing Date: 29 June 1999 (29.06.99)

(30) Priority Data:
09/110,526 6 July 1998 (06.07.98) US

(71) Applicant: BAYER CORPORATION [US/US]; 100 Bayer Road, Pittsburgh, PA 15205 (US).

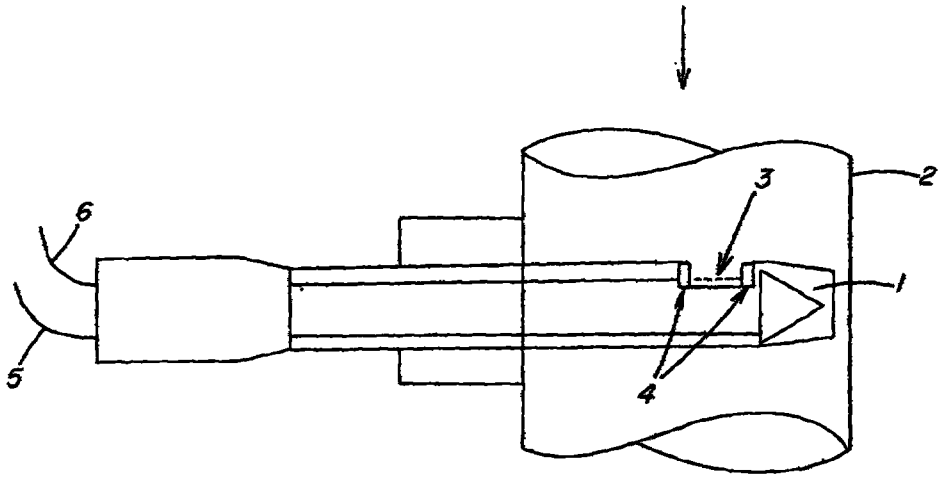
(72) Inventors: HUNT, Robert, N.; 2619 Whitehaven Boulevard, Steubenville, OH 43952 (US). ALLEN, Gary, F.; 811 Clearview Terrace, New Martinsville, WV 26155 (US). JACKSON, Julie, A.; 1334 Indian Autumn Trace, Houston, TX 77062 (US). SCHAREIN, Peter; 3508 Del Sur Drive, Baytown, TX 77521 (US). RYAN, Peter, J.; Ludwig Girtler, Strasse 5, D–51373 Leverkusen (DE). MACNAUGHTAN, Donald, Jr.; 1234 Robin Drive, New Martinsville, WV 26155 (US). SOMMER, Klaus; 1115 Allenclair Circle, Pittsburgh, PA 15241 (US). PHILYAW, Larry, E.; 4306 Long Grove Drive, Seabrook, TX 77586 (US).

(74) Agents: GIL, Joseph, C. et al.; Bayer Corporation, Patent Dept., 100 Bayer Road, Pittsburgh, PA 15205 (US).

(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, 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, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
Without international search report and to be republished upon receipt of that report.

(54) Title: AN IN–LINE METHOD FOR DETERMINING THE RESIDUE CONTENT OF AN ISOCYANATE AND APPARATUS USEFUL THEREFOR



(57) Abstract

An in–line spectrometric method for determining the distillation residue content in an opaque, dark–colored mixture containing an isocyanate and tar–like materials (residue) during the isocyanate production process. A probe capable of directing light at wavelenths of from 1050 to 2150 nm is inserted in a stream of the residue–containing mixture and light is transmitted through the stream. Light absorption data is collected and a near–infrared spectrum is generated. The residue content is then determined using a chemometric model. Knowledge of the residue content makes it possible to control and optimize the distillation process.