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| <b>(51) International Patent Classification <sup>6</sup>:</b><br><b>C01C 1/02, H01L 21/00</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 96/39358</b><br><b>(43) International Publication Date:</b> 12 December 1996 (12.12.96)                                                                                                                                                                                                                                                                                                                                                                           |
| <b>(21) International Application Number:</b> PCT/US95/07649<br><b>(22) International Filing Date:</b> 5 June 1995 (05.06.95)<br><b>(71) Applicant (for all designated States except US):</b> STARTEC VENTURES, INC. [US/US]; 1327 Farrand Road, Fallbrook, CA 92028 (US).<br><b>(72) Inventors; and</b><br><b>(75) Inventors/Applicants (for US only):</b> HOFFMAN, Joe, G. [US/US]; 2140F Orinda Road, Cardiff by the Sea, CA 92007 (US). CLARK, R., Scot [US/US]; 1327 Farrand Road, Fallbrook, CA 92028 (US).<br><b>(74) Agent:</b> WENDT, Jeffrey, L.; Air Liquide, Suite 1800, 2700 Post Oak Boulevard, Houston, TX 77056 (US). |           | <b>(81) Designated States:</b> AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN, ARIPO patent (KE, MW, SD, SZ, UG), European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>With international search report.</i> |
| <b>(54) Title:</b> POINT-OF-USE AMMONIA PURIFICATION FOR ELECTRONIC COMPONENT MANUFACTURE<br><br><b>(57) Abstract</b><br><br>Highly purified ammonia for use in processes for the production of high-precision electronic components is prepared on-site by drawing ammonia vapor from a liquid ammonia reservoir, passing the vapor through a filter capable of filtering out particles of less than 0.005 micron in size, and scrubbing the filtered vapor in a high-pH aqueous liquid-vapor contact unit.                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |