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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : B01D 46/24, 39/20	A1	(11) International Publication Number: WO 99/03562 (43) International Publication Date: 28 January 1999 (28.01.99)
(21) International Application Number: PCT/US98/10723 (22) International Filing Date: 27 May 1998 (27.05.98) (30) Priority Data: 08/896,372 18 July 1997 (18.07.97) US (71) Applicant (for all designated States except US): DU PONT LANXIDE COMPOSITES INC. [US/US]; 1300 Marrows Road, P.O. Box 6077, Newark, DE 19714-6077 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): CONNOLLY, Elizabeth, Sokolinski [-/US]; 20 Windsor Road, Wilmington, DE 19809 (US). FORSYTHE, George, Daniel [-/US]; 326 Glenn Road, Landenberg, PA 19350 (US). RAJENDRAN, Govindasamy, Paramasivam [-/US]; 6 Cider Mill Court, Boothwyn, PA 19061 (US). CHAMBERS, Jeffrey, Allen [-/US]; 52 Kings Grant Road, Hockessin, DE 19707 (US). DOMANSKI, Daniel, Matthew [-/US]; 1017 Old Forge Road, New Castle, DE 19720 (US). (74) Agent: RAMBERG, Jeffrey, R.; Lanxide Corporation, 1300 Marrows Road, P.O. Box 6077, Newark, DE 19714-6077 (US).	(81) Designated States: AU, BR, CA, CN, CZ, HU, IL, JP, KR, MX, NO, NZ, PL, RO, RU, SG, TR, UA, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.	
(54) Title: CERAMIC HOT-GAS FILTER AND PROCESS FOR MANUFACTURING THE SAME		
(57) Abstract A ceramic hot-gas candle filter having a porous support of filament-wound oxide ceramic yarn at least partially surrounded by a porous refractory oxide ceramic matrix, and a membrane layer on at least one surface thereof. The membrane layer may be on the outer surface, the inner surface, or both the outer and inner surface of the porous support. The membrane layer may be formed of an ordered arrangement of circularly wound, continuous filament oxide ceramic yarn (b), a ceramic filler material (d) which is less permeable than the filament-wound support structure, or some combination of continuous filament and filler material. A particularly effective membrane layer comprises circularly wound filament with gaps intentionally placed between adjacent windings, and a filler material comprising ceramic particulates uniformly distributed throughout the gap region (c). The filter can withstand thermal cycling during backpulse cleaning and is resistant to chemical degradation at high temperatures.		