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(21) International Application Number: PCT/IB99/00271 (22) International Filing Date: 16 February 1999 (16.02.99) (30) Priority Data: 198 06 472.1 17 February 1998 (17.02.98) DE (71) Applicant (for all designated States except US): KERR-McGEE PIGMENTS GMBH & CO. KG [DE/DE]; Gebäude N215, Rheinuferstrasse 7-9, D-47829 Krefeld (DE). (72) Inventors; and (75) Inventors/Applicants (for US only): KEMPKENS, Jürgen [DE/DE]; Goethestrasse 71, D-41539 Donnmagen (DE). LAILACH, Günter [DE/DE]; Bismarckstrasse 109, D-47799 Krefeld (DE). (74) Agent: LaBRIE, Michael, J.; McAfee & Taft, 10th floor, Two Leadership Square, 211 North Robinson, Oklahoma City, OK 73102 (US).		(81) Designated States: 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, 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, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, 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 <i>With international search report.</i>
(54) Title: PROCESS AND FURNACE FOR THE PRODUCTION OF TiO ₂ PIGMENT ACCORDING TO THE SULFATE PROCESS		
(57) Abstract Method for the production of TiO ₂ pigments by dissolving titanium raw materials with sulfuric acid, producing a metal sulfate-containing titanyl sulfate solution, hydrolysing the titanyl sulfate, separation of the titanium dioxide hydrate from the metal sulfate-containing sulfuric acid by filtration, optional bleaching the titanium dioxide hydrate by reducing treatment in acidic solution, mixing the titanium dioxide hydrate with doping chemicals, and calcining the titanium dioxide hydrate to TiO ₂ pigment, characterized in that titanium dioxide hydrate is used as a starting material for the TiO ₂ calcining which has less than 3 kg sulfate ions per t TiO ₂ after a treatment with alkali hydroxide and washing out the alkali metal sulfate, the filter cake containing the titanium dioxide hydrate and doping chemicals is dried in a solid drier at 100 to 300 °C and the dried solid is subsequently calcined in a calcining furnace at temperatures up to 1100 °C (solid temperature) to TiO ₂ pigments and the exhaust is de-dusted, as well as a calcining furnace for the production of TiO ₂ pigments from dried sulfate-poor or sulfate-free titanium dioxide hydrate in the form of a rotary kiln with a length : diameter ratio in the range of 5 to 10.		