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(21) International Application Number: PCT/US00/05597 (22) International Filing Date: 2 March 2000 (02.03.00) (30) Priority Data: 60/122,933 5 March 1999 (05.03.99) US (71) Applicant (for all designated States except US): E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). (72) Inventor; and (75) Inventor/Applicant (for US only): VERNOOY, Paul, Douglas [US/US]; 6 Prince Eugene Lane, Media, PA 19063 (US). (74) Agent: SIEGELL, Barbara, C.; E.I. du Pont de Nemours and Company, Legal Patents Records Center, 1007 Market Street, Wilmington, DE 19898 (US).		(81) Designated States: CA, CN, JP, KR, SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: PROCESS FOR THE DECOMPOSITION OF NITROUS OXIDE (57) Abstract This invention relates to a process for the conversion of nitrous oxide (N ₂ O) to nitrogen and oxygen comprising contacting N ₂ O with a supported catalyst comprising iron and, optionally, certain other metals wherein the catalyst is prepared by the steps of: (a) preparing a paste comprising contacting zirconium hydroxide with a solution of an iron salt and a zirconium salt, optionally in the presence of binders and lubricants; (b) forming a shaped particle from the step (a) paste; (c) drying the step (b) shaped particle; (d) calcining the dried step (c) shaped particle at a temperature of at least 400 °C; and (e) optionally adding at least one metal selected from the group consisting of cobalt, nickel, rhodium, palladium, iridium, platinum, manganese, lanthanum and cerium, to step (a) or to the calcined step (d) shaped particle and to the catalyst used in said process.		