



[12] Patent

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[21] Application No.: GCC/P/2001/1623 [22] Filing Date: 10/09/2001 [30] Priority: [31] Priority No. [32] Priority date [33] State 09/659361 12/09/2000 US [72] Inventors: 1- Leslie Wilfred Benum, 2- Michael C. Oballa, 3- Sabino Steven Anthony Petrone, 4- Weixing Chen [73] Owner: NOVA Chemicals (International) S.A., Chemin Des Mazots 2, 1700 Fribourg, Switzerland [74] Agent: Suleiman Ibrahim Al-Ammar	[51] Int. Cl. ⁷ : C23C 30/00, 8/14, 8/18 [56] Cited Documents: - JP 55141545 A (NIPPON STEEL CORP. , JAPAN) 05 November 1980 - GB 2159542 A (MASCHF AUGSBURG NUERNBERG AG) 04 December 1985 - GB 2169621 A (MASCHF AUGSBURG NUERNBERG AG) 16 July 1986 - EP 0548405 A (KUBOTA KK) 30 June 1993 - US 5873951 A (WYNNS KIM A et al.) 23 February 1999

[54] SURFACE ON A STAINLESS STEEL MATRIX

[57] Abstract: An outermost surface covering not less than 55% of stainless steel, said surface having a thickness from 0.1 to 15 microns and being a spinel of the formula $Mn_xCr_{3-x}O_4$ wherein x is from 0.5 to 2 is not prone to coking and is suitable for hydrocarbonyl reactions such as furnace tubes for cracking. Figure 1 best illustrates the advantages of the present invention.

No. of claims: 19

No. of figures: 2

