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VENTURE**  
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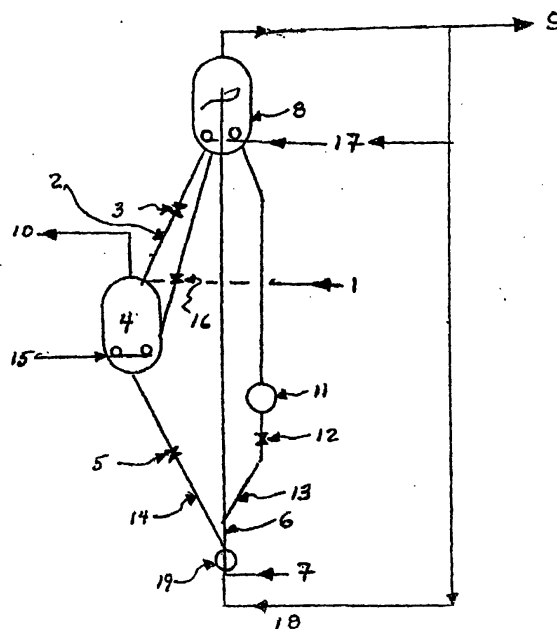
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(54) **Process for controlling oxidation of nitrogen and metals in circulating fluidized solids contacting process**

(57) A fluidized particulate solids contacting process for reducing regenerator flue gas NO<sub>x</sub> emissions and/or permitting operating with an increased equilibrium solids vanadium level, which process may be an FCC process or a fluidized particulate solid hydrocarbon treating process, wherein spent FCC catalyst or other spent solid is in a regenerator with an oxygen-containing regeneration gas under catalyst (solid) regeneration conditions which include a combination of at least a regeneration temperature and an oxygen level in the regeneration gas which is effective to burn off the spent solid a majority of carbonaceous deposits thereon, while substantially preventing the formation of NO<sub>x</sub>, and thereby produce a regenerated solid having a carbon level reduced from that of the spent solid and a flue gas; maintaining the regenerated solid in a fluidized state with a fluidizing media that substantially prevents any further oxidation or regeneration; and returning the fluidized regenerated solid to the reactor (contactor) used in the process.



**FIGURE 1**

**EP 1 306 420 A3**



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# EUROPEAN SEARCH REPORT

Application Number  
EP 02 02 3878

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 4 284 494 A (BARTHOLIC DAVID B ET AL) 18 August 1981 (1981-08-18) * column 6, line 50 - line 67; figure 1 * * column 8, line 25 - line 37 * ---	1-5, 8, 10-15	C10G11/18
X	US 4 965 232 A (MAULEON JEAN-LOUIS ET AL) 23 October 1990 (1990-10-23) * column 11, line 62 - line 68; claims; figures * ---	1, 3, 4, 10-15	
X	US 5 584 986 A (BARTHOLIC DAVID B) 17 December 1996 (1996-12-17) * column 4, line 48 - column 5, line 15; claims; figure 1 * ---	1, 3, 4, 10	
D, A	EP 1 043 384 A (BAR CO PROCESSES JOINT VENTURE) 11 October 2000 (2000-10-11) * the whole document * ---	1-15	
A	US 4 377 470 A (HETTINGER JR WILLIAM P ET AL) 22 March 1983 (1983-03-22) * column 34, line 65 - column 35, line 17; figure 1 * -----	1-15	<div>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</div> <div>C10G</div>
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>13 August 2003</b>	Examiner <b>Bertin-van Bommel, S</b>
<div>CATEGORY OF CITED DOCUMENTS</div> <div> X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document  T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  &amp; : member of the same patent family, corresponding document </div>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 02 02 3878

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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