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(21) International Application Number: PCT/US98/23669 (22) International Filing Date: 6 November 1998 (06.11.98) (30) Priority Data: 08/978,249 25 November 1997 (25.11.97) US (71) Applicant: MOBIL OIL CORPORATION [US/US]; 3225 Gallows Road, Fairfax, VA 22037 (US). (72) Inventors: ⁽¹⁾ JOHNSON, David, Lee, 181 Concord Meeting Road, Glen Mills, PA 19342 (US); ⁽²⁾ NARIMAN, Khushrav, Erach; 13411 Melville Lane, Chantilly, VA 20151 (US). ⁽³⁾ STERN, David, Lawrence; 3906 Tarnbrook Drive, Mount Laurel, NJ 08054 (US). (74) Agents: PRATER, Penny, L. et al.; Mobil Oil Corporation, 3225 Gallows Road, Fairfax, VA 22037 (US).		(81) Designated States: AU, CA, JP, SG, 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.</i>

(54) Title: PROCESS FOR THE REDUCTION OF SO₂ FROM WET LIME/LIMESTONE TAILGAS IN POWER PLANT DESULFURIZATION PROCESSES

(57) Abstract

This invention describes a process for the scrubbing of sulfur oxides (2) from the effluent of conventional wet lime/limestone sulfur oxides reduction processes (3) in coal or oil fired plants (1). The sulfur oxides are oxidatively sorbed onto solid sorbents (4) such as magnesium aluminate spinel. Reduction with the appropriate reducing gases (such as hydrogen) regenerates the solid sorbent (5), which also yields a process stream containing sulfur oxides. The sulfur oxides containing stream (6) can be re-fed to the front end of the coal or oil fired plants (1), with the sulfur oxides thus produced ultimately being removed in the conventional wet scrubbing technology (3). This process may allow for the use of high sulfur fuels.

