

Title (en)

METHOD AND APPARATUS FOR DESULFURIZATION OF A GAS.

Publication

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Application

EP 93904493 A 19930113

Priority

- US 9300319 W 19930113
- US 81928892 A 19920113

Abstract (en)

[origin: WO9314026A1] An alkaline earth bicarbonate is solubilized in water and contacted by a flue gas. The solubilized alkaline earth bicarbonate reacts with the SO₂ in the flue gas to form an alkaline earth sulfite which readily precipitates from the water solution and is efficiently separated therefrom. In accordance with the invention, the slurry exiting the desulfurization step is subjected to a heating step which causes soluble alkaline earth bisulfite formed during the desulfurization step to convert to the insoluble sulfite. The solids are separated from the aqueous phase and subjected to thermal degradation to recover the alkaline earth oxide and SO₂. The alkaline earth oxide can be recirculated and reused in the desulfurization process while the SO₂, which has practical uses as a precursor in various chemical processes and therefore is of commercial value, is liquified. Thermal degradation of the solids from the desulfurization step is carried out in apparatus which includes a preheater zone, an ignition and heating chamber and a degradation zone. The thermal degradation is carried out in the presence of heated pellets which are themselves inert to the degradation reaction. Preferably, the pellets are heated in the ignition and heating chamber prior to contact with the solids from the desulfurization step.

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Citation (search report)

- [A] US 4014978 A 19770329 - KLEIN HERSCHEL A, et al
- See references of WO 9314026A1

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