

ABSTRACT OF THE DISCLOSURE

5 A first contaminant selected from oxygen and carbon monoxide is removed from impure liquid carbon dioxide using a mass transfer separation column system which is reboiled by indirect heat exchange against crude carbon dioxide fluid, the impure liquid carbon dioxide having a greater concentration of carbon dioxide than the crude carbon dioxide fluid. The invention has particular application in the recovery of carbon dioxide from flue gas generated in an oxyfuel combustion process or waste gas from a hydrogen PSA process. Advantages include reducing the level of the first contaminant to not more than 1000 ppm.

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