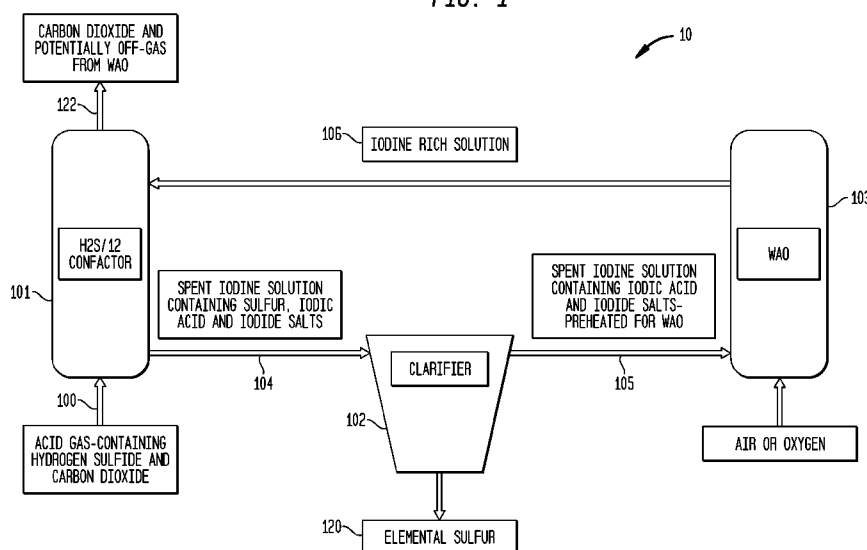




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(54) **Title:** H₂S CONVERSION TO SULFUR USING A REGENERATED IODINE SOLUTION

FIG. 1



(57) **Abstract:** Systems and methods of removing sulfur from a gas stream comprising hydrogen sulfide (H₂S) are provided. The systems and methods may utilize iodine to remove sulfur from the gas stream. In certain systems and methods, the iodine may be regenerated. In particular, the present systems and methods may be capable of reducing sulfur content in a gas stream comprising hydrogen sulfide H₂S gas to levels that are undetectable.