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(54) Title: REDUCING CONSUMPTION OF SULFIDING AGENT IN HYDROPROCESSING OF BIOFEEDSTOCKS

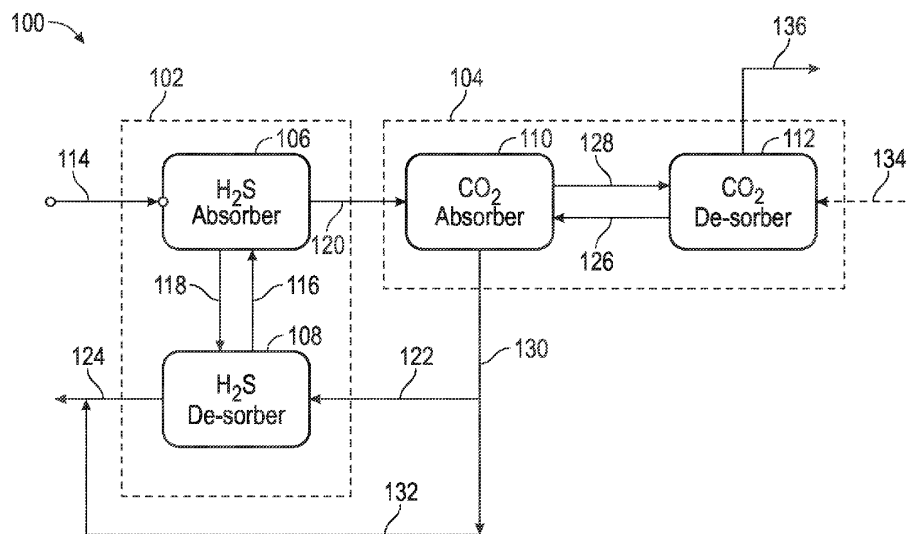


FIG. 1

(57) Abstract: Various methods and systems are disclosed, including a method comprising contacting a first gas stream with a first absorbent, wherein the first gas stream comprises hydrogen, CO₂, and hydrogen sulfide, wherein the first absorbent provides H₂S selectivity of greater than 4 to produce at least an H₂S rich absorbent stream and a second gas stream; contacting the H₂S rich absorbent stream with a first stripping medium to produce at least an H₂S lean first absorbent and a recycle stream comprising the first stripping medium and stripped H₂S; contacting the second gas stream with a second absorbent to absorb at least a portion of the CO₂ from the second gas stream to produce at least a hydrogen gas stream and a CO₂ rich second absorbent; and contacting the CO₂ rich second absorbent with a second stripping medium to produce at least a CO₂ lean second absorbent and a CO₂ stream.

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