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(54) Title: METHOD FOR HEAVY FUEL DESULFURIZATION USING ULTRASONICALLY INDUCED CAVITATION

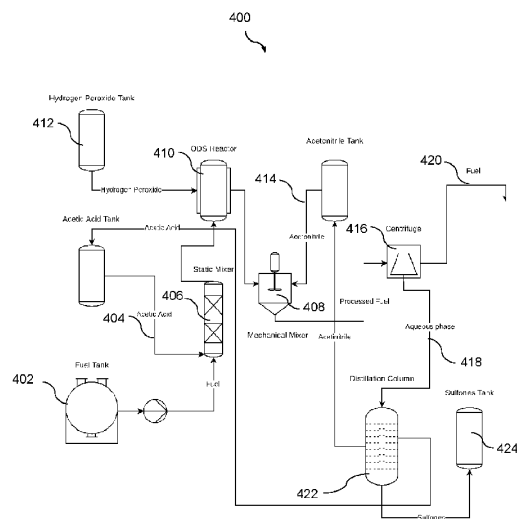


FIG. 4

(57) Abstract: A process is disclosed for removing sulfides from liquid fossil fuel comprising mixing the liquid fossil fuel with an oxidizer and catalyst to form a multiphase reaction medium and producing a fluid flow of the multiphase reaction medium. Ultra sound may be applied to the multiphase reaction medium to cause oxidation of sulfides in the liquid fossil fuel to sulfones; and extracting the sulfones to yield an organic phase and aqueous phase. The ultra sound is performed by generating vibrations parallel to the fluid flow of the multiphase reaction medium. The organic phase substantially consists of desulfurized fuel.

[Continued on next page]



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