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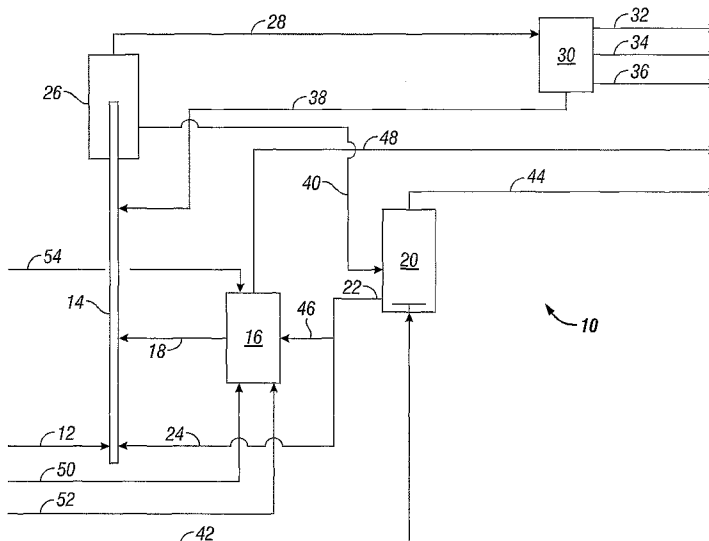
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(54) Title: METHOD AND APPARATUS FOR MAKING A MIDDLE DISTILLATE PRODUCT AND LOWER OLEFINS FROM A HYDROCARBON FEEDSTOCK



(57) Abstract: Disclosed is a process for making middle distillate and lower olefins. The process includes catalytically cracking a gas oil feedstock within a riser reactor zone by contacting under suitable catalytic cracking conditions within the riser reactor zone the gas oil feedstock with a middle distillate selective cracking catalyst that comprises amorphous silica alumina and a zeolite to yield a cracked gas oil product and a spent cracking catalyst. The spent cracking catalyst is regenerated to yield a regenerated cracking catalyst. Within a dense bed reactor zone and under suitable high severity cracking conditions a gasoline feedstock is contacted with the regenerated cracking catalyst to yield a cracked gasoline product and a used regenerated cracking catalyst. The used regenerated cracking catalyst is utilized as the middle distillate selective catalyst.

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