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(54) Title: HYDROPROCESSING CATALYSTS AND METHODS FOR MAKING THEREOF

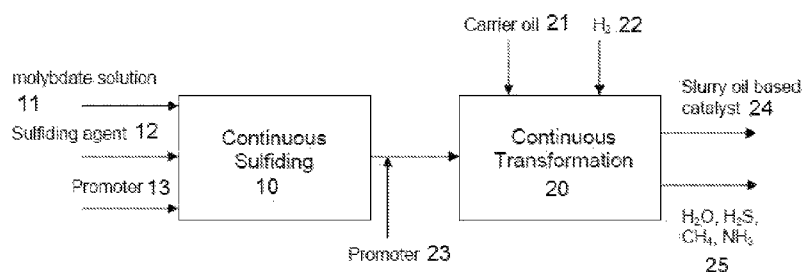


FIGURE 1

(57) Abstract: A process for preparing a slurry catalyst for the heavy oil upgrade is provided. The slurry catalyst has a BET total surface area of at least 100 m²/g, a total pore volume of at least 0.5 cc/g and a polymodal pore distribution with at least 80% of pore sizes from 5 to 2,000 Angstroms. In one embodiment, a polar aprotic solvent is mixed with the metal precursor feed to form an oil-dispersible precursor. In another embodiment, the precursor feedstock is selected from any of a pressure leach solution from metal recovery, a rework material, a double metal salt precursor, a single metal precursor. In one embodiment, high shear mixing is employed to generate an emulsion. In another embodiment, sulfiding is carried out at least twice for enhanced sulfiding. In another embodiment, at least a metal precursor feedstock is split into portions for addition in various stages of the process.



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