CLAIMS

1. A method of hydroprocessing, comprising:

forming a presulfided catalyst by:

contacting a sulfidable catalyst with sulfur, an olefin, and a triglyceride at a specified weight ratio of the olefin to the total weight of olefin and triglyceride of between 0.4 to 0.6 to form a mixture, wherein the weight ratio of the sulfur to the total weight of the catalyst is between 0.02 to 0.15; and

heating the mixture to form the presulfurized catalyst; and

adding hydrogen to the presulfurized catalyst ex-situ of the hydroprocessing reactor to form the presulfurized catalyst;

performing an initial startup of a reactor after loading of the presulfided catalyst to form a hydroprocessed hydrocarbon product;

feeding hydrocarbon feed comprising cracked feedstock comprising coker naptha, coker diesel, or light cycle oil (LCO), or any combinations thereof, to the reactor within first three days of the initial startup; and

catalyzing, via the presulfurized catalyst, hydroprocessing of the hydrocarbon feed in the reactor to give the hydroprocessed hydrocarbon product.

2. The method of claim 1, wherein the hydrocarbon feed comprises at least 30 weight percent LCO, wherein the triglyceride comprises soybean oil, wherein the presulfurized catalyst comprises a metal oxide catalyst having one or more oxides of metals from Group VIB and Group VII of the Periodic Table of Elements, and wherein the presulfurized catalyst comprises a carbonaceous barrier within pores of the presulfurized catalyst.

3. The method of claim 2, comprising discharging the hydroprocessed hydrocarbon product from the reactor, wherein the presulfurized catalyst comprises the carbonaceous barrier inside pores of the presulfurized catalyst formed via the heating of the mixture of the sulfidable catalyst, the sulfur, the olefin, and the

triglyceride, and wherein the hydroprocessing comprises hydrotreating, hydrocracking, or pygas treating, or any combination thereof.

4. The method of claim 3, wherein the metal oxide catalyst comprises alumina-supported nickel-molybdenum catalyst or alumina-supported cobalt-molybdenum catalyst, wherein the cracked feedstock comprises pyrolysis gasoline (pygas), and wherein the reactor comprises a pygas treater.