What is claimed is:

1. A method of conditioning an organically treated hydrotreating catalyst composition in preparation for a sulfiding treatment, the method comprising:

heating the organically treated hydrotreating catalyst composition in a treatment gas to form an ex-situ conditioned hydrotreating catalyst composition;

wherein

the organically treated hydrotreating catalyst composition comprises:

~~at least one metal~~nickel and molybdenum or cobalt and nickel supported on a porous support, and

at least one organic reagent absorbed in pores of the porous support, and

wherein

the heating decomposes at least a portion of the organic reagent leaving carbonaceous species in pores of the porous support,

wherein

the heating comprises flowing the treatment gas over the organically treated hydrotreating catalyst composition at a temperature of 125 °C to 160 °C for 1 to 2 hours, and

wherein

the treatment gas is nitrogen or a mixture of nitrogen and hydrogen.

~~2. The method of claim 1, wherein the organically treated catalyst composition has a carbon percent that is greater than 8 % prior to heating.~~

~~3. The method of claims 1 or 2, wherein the organically treated catalyst composition comprises chromium, molybdenum, or tungsten, or any combinations thereof.~~

~~4. The method of any of claims 1 – 3, wherein the organically treated catalyst composition comprises nickel or cobalt.~~

~~5~~2. The method of ~~any of~~ claim~~s~~ 1 ~~– 4~~, wherein the organic reagent comprises one or more of an organic acid, an acetoacetic acid compound, a polar heterocyclic compound, a polyacidic compound, a nitrogen-containing organic compound, or a carbonate.

~~6. The method of any of claims 1 - 5, wherein the treatment gas comprises less than 10 % oxygen.~~

~~7. The method of any of claims 1 - 6, wherein the treatment gas is nitrogen.~~

~~8. The method of any of claims 1 - 6, wherein the treatment gas is a mixture of nitrogen and hydrogen.~~

~~9. The method of any of claims 1 - 8, wherein the heating comprises flowing the treatment gas over the organically treated catalyst composition for up to 24 hours at a temperature of 230 ºC or less.~~

~~10. The method of any of claims 1 - 9, wherein the heating comprises flowing the treatment gas over the organically treated catalyst composition for one hour or less at a temperature of 125 °C or greater.~~

~~11. The method of any of claims 1 - 10, wherein the heating comprises flowing the treatment gas over the organically treated catalyst composition at a temperature of 125 °C to 160 °C for 1 to 2 hours.~~

~~12~~3. The method of any of claims 1 - ~~11~~2, further comprising performing an ex-situ sulfurization of the ex-situ conditioned hydrotreating catalyst composition to form an ex-situ sulfurized hydrotreating catalyst composition.

~~13~~4. The method of claim ~~12~~3, wherein performing the ex-situ sulfurization comprises:

contacting the ex-situ conditioned hydrotreating catalyst composition with a sulfur source to form a mixture, and

heating the mixture to form the ex-situ sulfurized hydrotreating catalyst composition.

~~14~~5. The method of claim ~~12~~3, wherein performing the ex-situ sulfurization comprises:

contacting the ex-situ conditioned hydrotreating catalyst composition with sulfur and one or more organic compounds to form a mixture; and

heating the mixture to form the ex-situ sulfurized hydrotreating catalyst composition.

~~15~~6. The method of claim ~~14~~5, wherein the one or more organic compounds comprise one or more of an olefin and a triglyceride.

~~16~~7. The method of any of claims ~~12~~3 - ~~15~~6, further comprising performing an ex-situ sulfiding of the ex-situ sulfurized hydrotreating catalyst composition.

~~17~~8. The method of claim ~~16~~7, wherein the ex-situ sulfiding of the ex-situ sulfurized hydrotreating catalyst composition comprises heating the ex-situ sulfurized hydrotreating catalyst composition under a hydrogen-containing atmosphere.

~~18. The method of any of claims 1 - 17, further comprising performing an ex-situ sulfiding of the ex-situ conditioned catalyst composition to form an ex-situ sulfided catalyst composition.~~

~~19. The method of claim 18, wherein performing the ex-situ sulfiding comprises:~~

~~contacting the ex-situ conditioned catalyst composition with a sulfur source to form a mixture; and~~

~~heating the mixture under a flow of hydrogen to form the ex-situ sulfided catalyst composition.~~

~~20. A catalyst composition formed by a method according to any of claims 1 - 19.~~