CLAIMS:

1. A method of dewaxing a hydrocarbonaceous feedstock, comprising:

exposing a feedstock under effective dewaxing conditions to a catalyst comprising ZSM-48 crystals containing at least one of titania, zirconia, or zinc oxide as a framework metal oxide in a ZSM-48 structural framework, a molar ratio of SiO_2 to the framework metal oxide in the ZSM-48 structural framework being 70 to 200, a molar ratio of SiO_2 to Al_2O_3 in the ZSM-48 structural framework ~~being at least~~ of 120 to 225.

~~2. The method of claim 1, wherein the ZSM-48 crystals have a molar ratio of SiO_2 to Al_2O_3 in the ZSM-48 structural framework of 120 to 225.~~

~~3.~~2. The method of claim 1, wherein the ZSM-48 crystals are substantially free of intentionally added alumina.

~~4. The method of claim 1, wherein the ZSM-48 crystals have a molar ratio of SiO_2 to Al_2O_3 in the ZSM-48 structural framework of at least 500.~~

~~5.~~3. The method of claim 1, wherein the framework metal oxide is titania.

~~6.~~4. The method of claim 1, wherein the effective dewaxing conditions comprise a temperature from 200°C to 450°C, a pressure from 0 psig to 1000 psig (6.9 MPag), a WHSV from 0.2 hr^{-1} to 10 hr^{-1}, and a hydrogen/hydrocarbon mole ratio from 0.5 to 10.

~~7.~~5. The method of claim 1, wherein the catalyst further comprises a metal oxide binder.

8.6. The method of claim 1, wherein the catalyst further comprises a metal hydrogenation component.

9.7. The method of claim 8 6, wherein the metal hydrogenation component comprises a group VIII metal, a Group VIB metal, or a combination thereof.

10.8. The method of claim 8 6, wherein the metal hydrogenation component comprises 0.1 wt% to 1.5 wt% of Pt, Pd, or a combination thereof.

11.9. A method of synthesizing ZSM-48 crystals containing at least one of titania, zirconia, or zinc oxide as a framework metal oxide in a zeolite structural framework, the method comprising crystallizing a reaction mixture comprising a source of water, a source of SiO_2, a source of the framework metal oxide, a source of an alkali metal M, and a source of a structure directing agent in the form of an organic cation, Q,

the reaction mixture having a molar ratio of structure directing agent cation, Q, to SiO_2 in said reaction mixture of 0.01 to 0.2; a molar ratio of SiO_2 to framework metal oxide in said reaction mixture of 50 to 225; a molar ratio of water to SiO_2 in said reaction mixture of 1 to 500; a molar ratio of hydroxyl group concentration to SiO_2 in said reaction mixture of from 0.1 to 0.5; a molar ratio of alkali metal, M, to SiO_2 in said reaction mixture of from 0.05 to 0.5; and a molar ratio of SiO_2 to Al_2O_3 in said reaction mixture of ~~at least~~ 120 to 225.

12.10. The method of claim 11 9, wherein the structure directing agent cation Q is a hexamethonium cation.

~~13. The method of claim 11, wherein the reaction mixture further comprises a source of Al_2O_3, a molar ratio of SiO_2 to Al_2O_3 in said reaction mixture being 120 to 225.~~

~~14.~~11. The method of claim ~~11~~ 9, wherein the reaction mixture is substantially free of a source of intentionally added Al_2O_3.

~~15.~~12. The method of claim ~~11~~ 9, wherein the reaction mixture further comprises seeds of ZSM-48 in an amount such that a weight percent of seeds relative to total weight of SiO_2 in said reaction mixture is between 0.1 wt% and 20 wt%.

~~16.~~13. The method of claim ~~11~~ 9, wherein the framework metal oxide is titania.