

7. The catalyst composition of claim 1, having a $C_{\text{carboxy}}/C_{\text{total}}$ ratio of from 0.15 to 0.19.
8. A method for preparing the catalyst composition of claim 1, comprising:
- (a) impregnating an inorganic catalyst support, the support comprising a porous inorganic refractory selected from the group consisting of silica, alumina, alumina-silica, and the crystalline silica-aluminas with an aqueous solution containing (i) a salt of a Group VIB metal selected from Mo and W, (ii) a salt of a Group VIII metal selected from Co and Ni, and (iii) an organic acid, wherein the organic acid is a hydroxycarboxylic acid;
 - (b) drying the impregnated catalyst support, thereby resulting in a dried catalyst precursor comprising a metal-organic component in or on the support;
 - (c) calcining the dried catalyst precursor in an oxygen-containing atmosphere for a time of from 1 minute to 1 hour and a temperature of from 350°C to 500°C, said calcining being sufficient to oxidize some but not all of the organic portion of the metal-organic component, thereby resulting in a partially oxidized catalyst precursor having:
 - (i) a loss-on-ignition of greater than 1 wt.% and up to 10 wt. %, wherein loss-on-ignition is determined using a test conducted by heating a sample of the partially oxidized catalyst precursor in an oxygen-containing atmosphere for 1 hour at 1020°F (549°C) and measuring weight loss after such heating; and
 - (ii) a carbon-as-carboxyl to total residual carbon ratio ($C_{\text{carboxy}}/C_{\text{total}}$) of from 0.10 to 0.19 as determined by X-ray photoelectron spectroscopy; and
 - (d) sulfiding the partially oxidized catalyst precursor at sulfiding conditions in the presence of a sulfiding agent, thereby resulting in a sulfided catalyst composition.
9. The method of claim 8, wherein the hydroxycarboxylic acid is selected from the group consisting of glycolic acid, lactic acid, glyceric acid, gluconic acid, malic acid, tartaric acid, mucic acid, and citric acid.
10. The method of claim 8, wherein the calcining is carried out at a temperature of from 360°C to 500°C.
11. The method of claim 8, wherein the calcining is carried out at a time of from 5 minutes to 1 hour.
12. A process for hydrotreating a hydrocarbon feedstock, comprising: contacting the feedstock with a hydrotreating catalyst under hydrotreating conditions to produce a hydrotreated effluent, wherein the hydrotreating catalyst comprises the catalyst composition of claim 1.