35. The method of claim **1**, further comprising fractionating the hydrocarbons to produce one or more hydrocarbon fractions.

36. The method of claim **1**, further comprising utilizing the hydrocarbons as a fuel in an engine.

37. The method of claim **1**, further comprising utilizing the hydrocarbons as an aviation fuel.

38. The method of claim **1**, further comprising blending the hydrocarbons with petroleum fuel to produce a blended fuel.

39. The method of claim **1**, further comprising utilizing at least a portion of the hydrocarbons as a reactant in a chemical synthesis reaction.

40. The method of claim **1**, wherein exposing the composition to the catalyst comprises heating the composition in the presence of the catalyst at a temperature of at least 50° C., and wherein deoxygenating at least 10% of the fatty acids is performed at a temperature of at least 250° C.

41. A method, comprising:

exposing a composition comprising fatty acids to a first catalyst in a first catalyst bed at a temperature of at least 50° C., wherein the first catalyst comprises a) Pt and MO_3 on ZrO_2 where M is W, Mo, or a combination thereof, b) Pt/Ge on carbon, c) Pt/Sn on carbon, or d) any combination thereof; and

deoxygenating at least 10% of the fatty acids to produce hydrocarbons by exposing the composition to a second catalyst in a second catalyst bed at a temperature of at least 250° C., wherein the second catalyst comprises a) Pt and MO_3 on ZrO_2 where M is W, Mo, or a combination thereof, b) Pt/Ge on carbon, c) Pt/Sn on carbon, or d) any combination thereof.

42. The method of claim **41**, wherein the second catalyst comprises substantially the same chemical composition as the first catalyst.

43. The method of claim **41**, wherein the second catalyst comprises a different chemical composition than the first catalyst.

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