CLAIMS:

1. A method of making a shaped body having a silica content of at least 85 wt%, the method comprising the steps of
   a) Forming a shaped body from a mixture obtained from at least one amorphous silica powder, at least one silica sol having a pH below 7, and at least one polymeric organic extrusion aid, and optionally supplemental liquid medium;
   b) drying the shaped body obtained in step a); and
   c) heating the shaped body, in the presence of steam, to a temperature ranging from about 500 °C to about 800 °C.

2. The method of claim 1, wherein the supplemental liquid medium is water.

3. The method of any of claims 1 or 2, wherein the silica sol contributes to an amount of from about 4 wt% to about 40 wt% of the overall amount of silica in the mixture used in step a).

4. The method of any of the preceding claims, wherein the mixture shaped in step a) further comprises crystallites of a zeolite or zeolite-type material.

5. The method of claim 4, wherein the zeolite or zeolite-type material is present in an amount that is equal to or lower than the amount of silica in the mixture.

6. The method of any of the preceding claims, wherein step c) is carried out in the presence of steam and air.

7. The method of any of the preceding claims, wherein step c) takes place in an atmosphere containing at least 5 vol. % air.

8. The method of any of the preceding claims, wherein the polymeric extrusion aid is selected from polyvinyl alcohols, cellulose, cellulose ethers, such as methylcellulose and hydroxypropyl methyl cellulose polymers, colloidal silica, floridin, carbon powder, graphite, polyoxyethylene, mixed walnut shell and mixtures of two or more thereof.

9. The method of any of the preceding claims, wherein the polymeric extrusion aid is used in an amount of from about 0.5 to about 10 parts by weight per 100 parts by weight of the overall silica present in the mixture used in step a).

10. The method of any of the preceding claims, wherein shaping is performed by extrusion.

11. The method of any of the preceding claims, wherein step b) is carried out at a temperature of 200°C or less.

12. The method of any of the preceding claims, wherein heating in step c) is carried out for a period of from 10 minutes to 120 minutes.

13. The method of any of the preceding claims, wherein the silica sol used contains no detectable traces of sodium.

14. An amorphous carrier, preparable by the method of any of claims 1 to 13, having a silica content of at least about 85 wt%, a pore volume determined by mercury intrusion porosimetry of from 0.8 cm^3/g to 1.0 cm^3/g and a median pore size in the range of from about 220 Angstroms to about 450 Angstroms, and having a crush strength of at least 625 g/mm (35 lb/inch).

15. The carrier of any of claim 14, wherein the carrier has a pore volume determined by mercury intrusion porosimetry of from 0.8 cm^3/g to 0.95 cm^3/g.

16. The carrier of any of claims 14 or 15, wherein the carrier has a median pore size in the range of from about 200 Angstroms to about 500 Angstroms.

17. The carrier of any of claims 14 to 16, wherein the carrier has a surface area determined by nitrogen adsorption using the BET equation in the range of from 50 to 150 m^2/g.

18. The carrier of any of claims 14 to 17, wherein the carrier comprises up to 5 parts by weight, of a polymeric material per 100 parts by weight of carrier.

19. The carrier of claim 18, wherein the polymeric material is selected from polyvinyl alcohols, cellulose, cellulose ethers, such as methylcellulose

and hydroxypropyl methyl cellulose polymers, colloidal silica, floridin, carbon powder, graphite, polyoxyethylene, mixed walnut shell and mixtures of any two or more thereof.

20. The carrier of claim 19, wherein the polymeric material is a polyvinyl alcohol.

21. A supported catalyst, comprising a carrier according to any of claims 14 to 20, or prepared by the method of any of claims 1 to 13.

22. The supported catalyst of claim 21, further comprising at least one metal.

23. The supported catalyst of any one of claims 21 and 22, wherein the metal is selected from cobalt, molybdenum, and mixtures thereof.

24. A process for converting a hydrocarbon feedstock, wherein a hydrocarbon feedstream is contacted with a supported catalyst according to claim 23 in the presence of hydrogen, under hydrogenation conditions, to produce a hydrogenated hydrocarbon product.

CLAIMS

1. A method of making a shaped body having a silica content of at least 85 wt %, the method comprising the steps of

a) forming a shaped body from a mixture obtained from at least one amorphous silica powder, at least one silica sol having a pH below 7, at least one polymeric organic extrusion, aid, optionally crystallites of a zeolite or zeolite-type material, and optionally supplemental liquid medium, wherein the silica sol contributes to an amount from about 4 wt % to about 40 wt % of the overall silica in the mixture used in step a) excluding the optional zeolite or zeolite-type material; and wherein the polymeric organic extrusion aid is used in an amount from about 0.5 to about 10 parts by weight per 100 parts by weight of the overall silica present in the mixture used in step a);

b) drying the shaped body obtained in step a); and

c) heating the shaped body to a temperature ranging from about 500°C to about 800°C to form a calcined shaped body.

2. The method of claim 1, wherein the supplemental liquid medium is present and is water.

3. The method of claim 1, wherein the mixture shaped in step as further comprises crystallites of a zeolite or zeolite-type material.

4. The method of claim 3, wherein the zeolite or zeolite-type material is present in an amount that is equal to or lower than the amount of silica in the mixture.

5. The method of claim 1, wherein step c) is carried out in the presence of steam.

6. The method of claim 1, wherein step c) is carried out in the presence of steam and air.

7. The method of claim 1, wherein step c) takes place in an atmosphere containing at least 5 vol % air.

8. The method of claim 1, wherein step c) takes place in an atmosphere containing at least 10 vol % steam.

9. The method of claim 7, wherein step c) takes place in an atmosphere containing at least 10 vol % steam.

10. The method of claim 1, wherein the polymeric organic extrusion aid comprises polyvinyl alcohols, cellulose, cellulose ethers, polyoxyethylene, and mixtures of two or more thereof.

11. The method of claim 10, wherein the polymeric organic extrusion aid comprises methylcellulose polymers, hydroxypropyl methyl cellulose polymers, and mixtures thereof.

12. The method of claim 10, wherein the polymeric organic extrusion aid comprises a polyvinyl alcohol.

13. The method of claim 1, wherein shaping is performed by extrusion.

14. The method of claim 1, wherein step b) is carried out at a temperature of about 200°C or less.

15. The method of claim 1, wherein heating in step c) is carried out for a period of from 10 minutes to 120 minutes.

16. The method of claim 1, wherein the silica sol used contains no detectable traces of sodium.

17. The method of claim 1, wherein the calcined shaped body has a pore volume determined by mercury intrusion porosimetry from 0.8 cm^3/g to 1.0 cm^3/g, a median pore size from about 220Å to about 450Å, and a crush strength of at least 625 g/mm (35 lb/inch).

18. The method of claim 17, wherein the pore volume of the calcined shaped body is from 0.8 cm^3/g to 0.95 cm^3/g.

19. The method of claim 17, wherein the calcined shaped body has a surface area determined by nitrogen adsorption using the BET equation from 50 m^2/g to 150 m^2/g.

20. The method of claim 19, further comprising depositing in/on the calcined shaped body at least one catalytically active metal from Groups IVb, IVb, and VIII of the Periodic Table of Elements.

21. The method of claim 20, wherein the catalytically active metal comprises cobalt, molybdenum, and mixtures thereof.

22. The method of claim 17, wherein the calcined shaped body has an alkali metal content of less than 0.5% by weight of the calcined shaped body.

23. The method of claim 1, further comprising depositing in/on the calcined shaped body at least one catalytically active metal from Groups IVb, IVb, and VIII of the Periodic Table of Elements.

24. The method of claim 23, wherein the catalytically active metal comprises cobalt, molybdenum, and mixtures thereof.