CLAIMS:

1. An organosilica material, which is a polymer of at least one independent monomer of Formula $[Z^1OZ^2OSiCH_2]_3$ (I), wherein each Z^1 and Z^2 independently represent a hydrogen atom, a C_1-C_4 alkyl group or a bond to a silicon atom of another monomer and at least one other trivalent metal oxide monomer, wherein the organosilica material has an X-ray diffraction pattern with no peaks in the range of from 3 to 10 degrees 2θ, measured using the Cu Kα line.

2. The organosilica material of claim 1, wherein each Z^1 and Z^2 independently represent a hydrogen atom, a C_1-C_2 alkyl group or a bond to a silicon atom of another monomer; preferably wherein each Z^1 and Z^2 independently represent a hydrogen atom, ethyl or a bond to a silicon atom of another monomer.

3. The organosilica material of any one of the previous claims wherein the at least one other trivalent metal oxide monomer is

(i) an independent unit of formula $M^1(OZ^3)_3$ (II), wherein M^1 represents a Group 13 metal and each Z^3 independently represents a hydrogen atom, a C_1-C_6 alkyl or a bond to a silicon atom of another monomer; or

(ii) an independent unit of formula $(Z^4O)_2M^2$-O-Si$(OZ^5)_3$ (III) , wherein M^2 represents a Group 13 metal and each Z^4 and each Z^5 independently represent a hydrogen atom, a C_1-C_6 alkyl group or a bond to a silicon atom of another monomer.

4. The organosilica material of claim 3, wherein at least one unit of formula (II) is present, wherein M^1 is Al or B and each Z^3 independently represents a hydrogen atom, a C_1-C_4 alkyl group or a bond to a silicon atom or another monomer.

5. The organosilica material of claim 3 or 4, wherein at least one unit of formula (III) is present, wherein M^2 is Al or B; and each Z^4 and each Z^5 independently represent a hydrogen atom, a C_1-C_4 alkyl group or a bond to a silicon atom of another monomer.

6. The organosilica material of any one of the previous claims further comprising a monomer selected from the group consisting of:

(i) an independent unit of formula $[Z^6OZ^7SiCH_2]_3$ (IV), wherein each Z^6 represents a hydrogen atom, a C_1-C_4 alkyl group or a bond to a silicon atom of another monomer and each Z^7 represents a hydroxyl group, a C_1-C_6 alkyl group or an oxygen atom bonded to a silicon atom of another monomer;

(ii) an independent unit of formula $Z^8OZ^9Z^{10}Z^{11}Si$ (V), wherein each Z^8 represents a hydrogen atom or a C_1-C_4 alkyl group or a bond to a silicon atom of another monomer; and Z^9, Z^{10} and Z^{11} are each independently selected from the group consisting of a hydroxyl group, a C_1-C_4 alkyl group, a C_1-C_4 alkoxy group, a nitrogen-containing C_1-C_{10} alkyl group, a nitrogen-containing heteroaralkyl group, a nitrogen-containing optionally substituted heterocycloalkyl group, and an oxygen atom bonded to a silicon atom of another monomer; and

(iii) an independent unit of formula $Z^{12}Z^{13}Z^{14}Si$-R-$SiZ^{12}Z^{13}Z^{14}$ (VI), wherein each Z^{12} independently represents a hydroxyl group, a C_1-C_4 alkoxy group or an oxygen atom bonded to a silicon atom of another comonomer; each Z^{13} and Z^{14} independently represent a hydroxyl group, a C_1-C_4 alkoxy group, a C_1-C_4 alkyl group or an oxygen bonded to a silicon atom of another monomer; and R is selected from the group consisting of a C_1-C_8 alkylene group, a C_2-C_8 alkenylene group, a C_2-C_8 alkynylene group, a nitrogen-containing C_2-C_{10} alkylene group, an optionally substituted C_6-C_{20} aralkyl and an optionally substituted C_4-C_{20} heterocycloalkyl group; and

(iv) a combination thereof.

7. The organosilica material of any one of the previous claims, wherein one or more of the following are satisfied:

(i) the organosilica has an average pore diameter between 1.5 nm and 20.0 nm;

(ii) the organosilica material has a total surface area of 200 m^2/g to 2500 m^2/g; and

(iii) the organosilica material has a pore volume 0.1 cm^3/g to 5.0 cm^3/g, wherein the average pore diameter, the total surface area, and the pore volume are determined using the Brunauer Emmett Teller (BET) method.

8. The organosilica material of any one of the previous claims, further comprising at least one catalytic metal incorporated within the pores of the material; preferably wherein the catalytic metal is selected from the group consisting of a Group 6 element, a Group 8 element, a Group 9 element, a Group 10 element and a combination thereof; preferably from nickel, palladium and/or platinum.

9. The organosilica material of any one of the previous claims, wherein the at least one catalytic material further comprises a binder material selected from the group consisting of synthetic or naturally occurring zeolites, clays, alumina, silica, silica-alumina, titania, zirconia, cerium oxide, magnesium oxide, niobium oxide, tantalum oxide, activated carbon, ceramics and a combination thereof.

10. The organosilica material of any one of the previous claims made using no structure directing agent or porogen.

11. The organosilica material of any one of the previous claims, wherein the organosilica material has an X-ray diffraction pattern with no peaks in the range of from 3 to 20 degrees 2θ, measured using the Cu Kα line.

12. The organosilica material of claim 11, wherein the organosilica material has an X-ray diffraction pattern with no peaks in the range of from 3 to 40 degrees 2θ, measured using the Cu Kα line.

13. An aromatic hydrogenation process for a hydrocarbon feedstream comprising:

a) contacting a hydrocarbon feedstream comprising aromatics with a hydrogenation catalyst in the presence of a hydrogen-containing treat gas in a reaction

stage operated under effective aromatics hydrogenation conditions to produce a reaction product with reduced aromatic content,

wherein the hydrogenation catalyst comprises the organosilica material of claim 8.