WHAT IS CLAIMED IS:

1. A hydrotreating catalyst, useful to make dewaxed products including base oils having reduced aromatics content, the hydrotreating catalyst consisting of a base extrudate and at least one modifier, wherein the a base extrudate is formed from an amorphous silica alumina (ASA) and an alumina, wherein

the amorphous silica alumina has a pore volume in the 11-20 nm pore diameter range of 0.2 to 0.9 cc/g;

the alumina has a pore volume in the 11-20 nm pore diameter range of 0.01 to 1.0 cc/g; and

the base extrudate has a total pore volume in the 2-50 nm pore diameter range of 0.12 to 1.80 cc/g; and wherein the

at least one modifier is selected from Groups 6 to 10 and Group 14 of the Periodic Table.

2. The hydrotreating catalyst of claim 1, wherein the modifier comprises a Group 8-10 metal of the Periodic Table.

3. The hydrotreating catalyst of claim 2, wherein the modifier is a Group 10 metal comprising Pt, Pd, or a combination thereof.

4. The hydrotreating catalyst of claim 1, wherein the amorphous silica alumina has a pore volume in the 6-11 nm pore diameter range of 0.1 to 1.2 cc/g, or a pore volume in the 6-11 nm pore diameter range of 0.2 to 1.0 cc/g, or a pore volume in the 6-11 nm pore diameter range of 0.3 to 0.9 cc/g.

5. The hydrotreating catalyst of claim 1, wherein the amorphous silica alumina has a pore volume in the 11-20 nm pore diameter range of 0.25 to 0.8 cc/g, or a pore volume in the 11-20 nm pore diameter range of 0.3 to 0.7 cc/g.

6. The hydrotreating catalyst of claim 1, wherein the amorphous silica alumina has a pore volume in the 20-50 nm pore diameter range of 0.05 to 0.7 cc/g, or a pore volume in the 20-50 nm pore diameter range of 0.1 to 0.6 cc/g or a pore volume in the 20-50 nm pore diameter range of 0.15 to 0.5 cc/g.

7. The hydrotreating catalyst of claim 1, wherein the amorphous silica alumina has a total pore volume in the 2-50 nm pore diameter range of 0.3 to 2.2 cc/g, or a total pore volume in the 2-50 nm pore diameter range of 0.4 to 2.1 cc/g, or a total pore volume in the 2-50 nm pore diameter range of 0.5 to 2.0 cc/g.

8. The hydrotreating catalyst of claim 1, wherein the alumina has a pore volume in the 6-11 nm pore diameter range of 0.05 to 1.0 cc/g, or a pore volume in the 6-11 nm pore diameter range of 0.06 to 0.8 cc/g, or a pore volume in the 6-11 nm pore diameter range of 0.07 to 0.6 cc/g.

9. The hydrotreating catalyst of claim 1, wherein the alumina has a pore volume in the 11-20 nm pore diameter range of 0.2 to 1.0 cc/g, or a pore volume in the 11-20 nm pore diameter range of 0.2 to 0.9 cc/g, or a pore volume in the 11-20 nm pore diameter range of 0.3 to 0.85 cc/g, or a pore volume in the 11-20 nm pore diameter range of 0.4 to 0.7 cc/g.

10. The hydrotreating catalyst of claim 1, wherein the alumina has a pore volume in the 11-20 nm pore diameter range of less than 0.2 cc/g, or a pore volume in the 11-20 nm pore diameter range of less than 0.1 cc/g, or a pore volume in the 11-20 nm pore diameter range of less than 0.05 cc/g.

11. The hydrotreating catalyst of claim 1, wherein the alumina has a pore volume in the 20-50 nm pore diameter range of 0.05 to 1.0 cc/g, or a pore volume in the 20-50 nm pore diameter range of 0.07 to 0.8 cc/g, or a pore volume in the 20-50 nm pore diameter range of 0.09 to 0.6 cc/g.

12. The hydrotreating catalyst of claim 1, wherein the alumina has a total pore volume in the 2-50 nm pore diameter range of 0.3 to 2.0 cc/g, or a total pore volume in the 2-50 nm pore diameter range of 0.5 to 1.75 cc/g, or a total pore volume in the 2-50 nm pore diameter range of 0.7 to 1.5 cc/g.

13. The hydrotreating catalyst of claim 1, wherein the base extrudate has a pore volume in the 6-11 nm pore diameter range of 0.2 to 1.2cc/g, or a pore volume in the 6-11 nm pore diameter range of 0.3 to 1.1 cc/g, or a pore volume in the 6-11 nm pore diameter range of 0.4 to 1.0 cc/g.

14. The hydrotreating catalyst of claim 1, wherein the base extrudate has a pore volume in the 11-20 nm pore diameter range of 0.01 to 0.4 cc/g, or a pore volume in the 11-20nm pore diameter range of 0.02 to 0.35 cc/g, or a pore volume in the 11-20 nm pore diameter range of 0.03 to 0.30 cc/g.

15. The hydrotreating catalyst of claim 1, wherein the base extrudate has a pore volume in the 20-50 nm pore diameter range of less than 0.03 cc/g, or less than 0.02 cc/g, or less than 0.01 cc/g.

16. The hydrotreating catalyst of claim 1, wherein the base extrudate has a total pore volume in the 2-50 nm pore diameter range of 0.4 to 1.65 cc/g, or a total pore volume in the 2-50 nm pore diameter range of 0.5 to 1.50 cc/g.

17. The hydrotreating catalyst of claim 1, wherein the modifier content is 0.01-5.0 wt.%, or 0.01-2.0 wt.%, or 0.1-2.0 wt.% based on the total weight of the hydrotreating catalyst.

18. The hydrotreating catalyst of claim 1, wherein the hydrotreating catalyst comprises Pt, Pd, or a combination of Pt and Pd, wherein the modifier content is 0.01-1.0 wt.%, or 0.1-0.8 wt.% based on the total weight of the hydrotreating catalyst.

19. The hydrotreating catalyst of claim 1, wherein the hydrotreating catalyst does not further include a molecular sieve or zeolite.

20. The hydrotreating catalyst of claim 19, wherein the hydrotreating catalyst comprises 0.01 to 5.0 wt.% of the modifier based on the total weight of the hydrotreating catalyst.

21. A process for producing a hydrotreated base oil product, the process comprising contacting a hydrocarbon feed with the hydrotreating catalyst of claim 1 under hydrotreating conditions to produce a base oil product, wherein the hydrotreated base oil product has increased aromatics saturation conversion relative to a hydrotreated base oil product obtained from a same process using a comparative hydrotreating catalyst that differs only in that the amorphous silica alumina component does not have a pore volume in the 11-20 nm pore diameter range of 0.2 to 0.9 cc/g, or 0.25 to 0.8 cc/g, or 0.3 to 0.7 cc/g .

22. The process of claim 21, wherein the hydrocarbon feed comprises gas oil; vacuum gas oil; long residue; vacuum residue; atmospheric distillate; heavy fuel; oil; wax and paraffin; used oil; deasphalted residue or crude; charges resulting from thermal or catalytic conversion processes; shale oil; cycle oil; animal and vegetable derived fats, oils and waxes; petroleum and slack wax; or a combination thereof.

23. The process of claim 21, wherein the aromatics saturation conversion increase is at least 0.5 wt.%, or 1.0 wt.%, or 1.5 wt.%, or 2.0 wt.%.