CLAIMS

1. A process for preparing a catalyst composition comprising: (a) preparing a carrier comprising (i) mordenite in an amount in the range of from 20 to 80 wt %, based on total weight of carrier, (ii) ZSM-5 type zeolite in an amount in the range of from 10 to 70 wt %, based on total weight of carrier; and (iii) an inorganic binder in an amount in the range of from 10 to 50 wt %, based on total weight of carrier; (b) incorporating in the carrier molybdenum in an amount in the range of from 1 to 10 wt %, as metal based on total weight of catalyst composition, and subjecting the thus treated carrier to a temperature of from 100 to at most 300°C.; and (c) incorporating in the molybdenum containing carrier obtained in step (b) platinum in an amount of from 0.005 to 1 wt %, as metal based on total weight of catalyst composition, and subjecting the thus treated carrier to a temperature of from 200 to at most 600°C.

2. The process according to claim 1, wherein step (b) comprises subjecting the molybdenum containing carrier to a temperature of from 100 to at most 170°C.

3. The process according to claim 2, wherein the temperature of the molybdenum containing carrier in step (c) is at most 170°C. until platinum has been incorporated in the molybdenum containing carrier in step (c) and the thus treated carrier is then subjected to a temperature of from 200 to at most 600°C.

4. The process according to claim 1, wherein the mordenite has a silica to alumina molar ratio in the range of from 10 to 40.

5. The process according to claim 1, wherein the ZSM-5 type zeolite has a silica to alumina molar ratio in the range of from 15 to 40.

6. The process according to claim 1, wherein the ZSM-5 type zeolite has a number average particle size in the range of from 20 to 500 nm, as determined by X-ray diffraction.

7. The process according to claim 1, wherein the mordenite has a number average particle size in the range of from 20 to 500 nm, as determined by X-ray diffraction.

8. The process according to claim 1, wherein the carrier is prepared by mixing the mordenite, the ZSM-5 type zeolite and the inorganic binder, shaping the mixture and subjecting the shaped mixture to a temperature of from 200 to 800°C.

9. A process for the conversion of a feedstock containing alkylaromatic hydrocarbons, wherein the process comprises: contacting the feedstock with using a catalyst prepared by a process according to claim 1 in the presence of hydrogen; and yielding a reaction effluent.

10. The process according to claim 9, wherein the feedstock comprises of from 35 to 75 wt % of toluene and of from 25 to 65 wt % of alkylaromatic compounds containing at least 9 carbon atoms, all amounts based on total amount of feedstock.