CLAIMS

1. A method of preparing a bound zeolite support comprising:

contacting a KL-zeolite powder with a binder and water to form a paste;

shaping the paste to form a wet extruded base;

removing excess water from the wet extruded base to form an extruded base;

contacting the extruded base with a fluorine-containing compound to form a fluorinated extruded base;

calcining the fluorinated extruded base to form a calcined fluorinated extruded base;

washing the calcined fluorinated extruded base to form a washed calcined fluorinated extruded base;

drying the washed calcined fluorinated extruded base to form a dried washed calcined fluorinated extruded base; and

calcining the dried washed calcined fluorinated extruded base to form the bound zeolite support.

2. The method of claim 1 wherein the fluorine-containing compound is in the gas phase.

3. The method of claim 1 or 2 wherein the binder comprises synthetic or naturally- occurring zeolites, alumina, silica, clays, refractory oxides of metals of Groups IVA and IVB of the Periodic Table of the Elements; oxides of silicon, titanium, zirconium; or combinations thereof.

4. The method of any of claims 1 to 3 wherein the bound zeolite support has a weight ratio of the zeolite to the binder in a range of from 90:10 to 70:30.

5. The method of any of claims 1 to 4 wherein the KL-zeolite comprises pores having an effective pore diameter ranging from 6 Angstroms (Å) (0.6 nm) to 15 Å (1.5 nm).

6. The method of any of claims 1 to 5 wherein the fluorine-containing compound is an organic ammonium halide compound represented by the general formula $N(R)_4F$, where R represents a hydrogen or a substituted or unsubstituted carbon chain molecule having from 1 to 20 carbon atoms and wherein each R may be the same or different.

7. The method of claim 6 wherein **R** is methyl, ethyl, propyl, butyl, or combinations thereof.

8. The method of claims 6 or 7 wherein the fluorine-containing compound comprises ammonium fluoride, tetramethylammonium fluoride, tetraethylammonium fluoride, tetrapropylammonium fluoride, tetrabutylammonium fluoride, methyltriethylammonium fluoride, or combinations thereof.

9. The method of any of claims 1 to 8 wherein the bound zeolite support comprises fluoride present in an amount of from 0.1wt.% to 5 wt.% based on x-ray florescence.

10. A method of forming an aromatization catalyst, the method comprising:
forming a bound zeolite support as per the method of any preceding claim; and
contacting said bound zeolite support with a Group VIII metal and at least one chlorine-containing compound to form the aromatization catalyst.

11. The method of claim 10 wherein the Group VIII metal comprises platinum.

12. The method of claim 10 or 11 wherein the chlorine-containing compound is an organic ammonium halide compound represented by the general formula $N(R)_4Cl$, where **R** represents a hydrogen or a substituted or unsubstituted carbon chain molecule having from 1 to 20 carbon atoms and wherein each **R** may be the same or different.

13. A catalytic reforming process for converting hydrocarbons to aromatics comprising:
forming an aromatization catalyst as per the method of any one of claims 10 to 12; and
contacting the aromatization catalyst with a hydrocarbon feed in a reaction zone under reforming conditions and recovering aromatics from the reaction zone.

14. The catalytic reforming process of claim 16 wherein the hydrocarbon feed contains less than 100 ppb of sulfur.