CLAIMS:

1. A zeolite X having
   a) a Si/Al framework mole ratio in a range from 1.0 to 1.5;
   b) a mean diameter not greater than 2.7 microns, as determined by sedigraph analysis; and
   c) a relative LTA intensity not greater than 0.35, as determined by a x-ray diffraction (XRD) method using a source of CuKα radiation to obtain XRD intensities in a range from 5° to 25° 2θ, wherein,
   the relative LTA intensity is calculated as 100 times the quotient of

$$\frac{\text{a sample LTA XRD intensity for the zeolite X}}{\text{a reference XRD intensity for a LTA zeolite reference material consisting essentially of LTA zeolite}}$$

   wherein,
   1) the sample LTA XRD intensity of the zeolite X is the sum of the intensities for each LTA peak with Miller indices of (2 0 0), (4 2 0), and (6 2 2) at 7.27 $\pm$ 0.16°, 16.29 $\pm$ 0.34° and 24.27 $\pm$ 0.50° 2θ, and
   2) the reference XRD intensity of the LTA-type zeolite reference material is the sum of the intensities for each LTA peak with Miller indices of (2 0 0), (4 2 0), and (6 2 2) at 7.27 $\pm$ 0.16°, 16.29 $\pm$ 0.34° and 24.27 $\pm$ 0.50° 2θ,
   wherein,
   the sample LTA XRD intensity and the reference XRD intensity are each
      i) obtained for a Na-exchanged form of the zeolite X and the LTA-type zeolite reference material, respectively, and
      ii) equilibrated at 50% relative humidity.

2. The composition of claim 1 wherein the unit cell size of the zeolite X is in a range from 24.99 Å to 24.950 angstroms, as determined by XRD of a Na-exchanged form of the zeolite X composition equilibrated at 50% relative humidity.

3. The composition of claim 1 wherein the unit cell size of the zeolite X is in a range from 24.985 Å to 24.955 angstroms, as determined by XRD of a Na-exchanged form of the zeolite X composition equilibrated at 50% relative humidity.

4. The composition of claim 1 wherein the Si/Al framework mole ratio of the zeolite X is in a range from 1.15 to 1.35.
5. The composition of claim 1 wherein the LTA intensity of the zeolite X is not greater than 0.30.
6. The composition of claim 1 wherein the zeolite X is exchanged with a metal salt selected from the group consisting of alkali metals, alkaline earth metals, lanthanide metals and combinations thereof.
7. A process wherein the composition of claim 1 is used as an adsorbent.

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b) a mean diameter not greater than 2.7 microns, as determined by sedigraph analysis; and

c) a relative LTA intensity not greater than 0.35, as determined by a x-ray diffraction (XRD) method using a source of CuKα radiation to obtain XRD intensities in a range from 5° to 25° 2θ, wherein,

the relative LTA intensity is calculated as 100 times the quotient of

$$\frac{\text{a sample LTA XRD intensity for the zeolite X}}{\text{a reference XRD intensity for a LTA zeolite reference material consisting essentially of LTA zeolite}}$$

wherein,

1) the sample LTA XRD intensity of the zeolite X is the sum of the intensities for each LTA peak with Miller indices of (2 0 0), (4 2 0), and (6 2 2) at 7.27±0.16°, 16.29±0.34° and 24.27±0.50° 2θ, and

2) the reference XRD intensity of the LTA-type zeolite reference material is the sum of the intensities for each LTA peak with Miller indices of (2 0 0), (4 2 0), and (6 2 2) at 7.27±0.16°, 16.29±0.34° and 24.27±0.50° 2θ,

wherein,

the sample LTA XRD intensity and the reference XRD intensity are each

i) obtained for a Na-exchanged form of the zeolite X and the LTA-type zeolite reference material, respectively, and

ii) equilibrated at 50% relative humidity.

2. The composition of claim 1 wherein the unit cell size of the zeolite X is in a range from 24.99 Å to 24.950 angstroms, as determined by XRD of a Na-exchanged form of the zeolite X composition equilibrated at 50% relative humidity.

3. The composition of claim 1 wherein the unit cell size of the zeolite X is in a range from 24.985 Å to 24.955 angstroms, as determined by XRD of a Na-exchanged form of the zeolite X composition equilibrated at 50% relative humidity.

4. The composition of claim 1 wherein the Si/Al framework mole ratio of the zeolite X is in a range from 1.15 to 1.35.

5. The composition of claim 1 wherein the LTA intensity of the zeolite X is not greater than 0.30.

6. The composition of claim 1 wherein the zeolite X is exchanged with a metal salt selected from the group consisting of alkali metals, alkaline earth metals, lanthanide metals and combinations thereof.