materials. Each channel contains adsorbent particles which are not immobilized in the article and attrition between the said adsorbent particles are readily to occur.

[0006] There is therefore still a need for adsorbing articles (or else adsorbent articles) with high volumetric efficiency, with adsorption and desorption kinetics that are compatible, especially for uses where high adsorption kinetics are required, for example for gas and/or liquid dynamic separation, such as Pressure Swing Adsorption (PSA), Temperature Swing Adsorption (TSA), and the like.

[0007] Still a need exists for immobilized zeolitic particles in adsorbent beds to prevent any move of said particles, thus avoiding attrition and dust formation, while keeping a high separation efficiency (high volumetric capacity and high kinetics).

[0008] Again, there is a need for adsorbent articles (or blocks) with high zeolite content, low attrition behavior of the particles together, limited pressure drop and high diffusion kinetics.

[0009] The Applicant has now discovered that the above needs can be met in whole or at least in part with the adsorbent article of the present invention, which is now explained.

[0009a] In an aspect, there is provided an adsorbent article comprising zeolitic particles of at least one zeolitic adsorbent, said particles being immobilized with at least one resin, wherein the average particle size of the at least one zeolitic adsorbent ranges from 0.03 mm to 3 mm, preferably from 0.04 mm to 2 mm, more preferably from 0.05 mm to 1 mm, and wherein the zeolite content is equal to or greater than 60 wt%, more preferred when zeolite content is greater than 70 wt%, preferably strictly greater than 80 wt%, more preferably strictly greater than 85 wt%, still more preferably strictly greater than 88 wt%, typically equal to or greater than 90 wt%, relative to the total weight of the said article.

[0009b] In another aspect, there is provided a method for separating a fluid from one or more other fluid(s) and/or separating a fluid from impurities contained in said fluid, comprising the step of contacting said fluid with at least one article as defined above.

[0009c] In another aspect, there is provided a blend of zeolitic particles with at least one resin, preferably in the form of particles, preferably beads, agglomerates and aggregates of beads with preferred volumetric average particle size of less than 100 µm, 50 µm preferably less than 20 µm, more preferably less than 12 µm, and more preferably less than 10 µm.

[0010] In a first embodiment, the present invention relates to an adsorbent article comprising zeolitic particles of at least one zeolitic adsorbent, said particles being immobilized with at least one resin, wherein the average particle size of the at least one zeolitic adsorbent ranges from 0.03 mm to 3 mm, preferably from 0.04 mm to 2 mm, more preferably from 0.05 mm to 1 mm, and wherein the zeolite content is equal to or greater than 60 wt%, more preferred when zeolite content is greater than 70 wt%, preferably strictly greater than 80 wt%, more preferably strictly greater than 85 wt%, still more preferably strictly greater than 88 wt%, typically equal to or greater than 90 wt%, relative to the total weight of the said article.

[0011] In the present description, all numerical ranges include the upper and lower limits, unless otherwise stated. In the present invention, "immobilized particles" means particles which exhibits reduced attrition due to immobility within the article and significant mechanical integrity to be self-supporting.

[0012] According to a first preferred aspect of the present invention, the zeolitic particles in the article comprise at least one zeolitic adsorbent in the form of zeolite(s) agglomerated with one or more inorganic binder. Inorganic binder is preferably chosen from, as non-limiting examples, natural clays, synthetic clays, silica, alumina, and the