CLAIMS

1. A core-shell microcapsule comprising:

a) an oil-based core comprising a hydrophobic material, preferably a perfume oil; and

b) a polymeric shell comprising chitosan particles,

wherein the chitosan particles are cross-linked chitosan particles.

2. The microcapsule according to claim 1, wherein the polymeric shell is made of a polymeric material selected from the group consisting of polyurea, polyurethane, polyamide, polyacrylate, polysiloxane, polycarbonate, polysulfonamide, urea formaldehyde, melamine formaldehyde resin, melamine urea resin, melamine glyoxal resin, gelatin/ gum arabic and mixtures thereof.

3. The microcapsule according to claim 2, wherein the polymeric shell is made of a material selected from the group consisting of polyurea, polyurethane and mixtures thereof.

4. The microcapsule according to any one of claims 1 to 3, wherein the chitosan particles are cross-linked with a cross-linker chosen in the group consisting of water soluble inorganic polyanion, water soluble di-aldehydes or poly-aldehydes, and mixtures thereof.

5. The microcapsule according to any one of claims 1 to 4, wherein the cross-linker is chosen in the group consisting of sodium triphosphate, sodium hexametaphoshpate, trisodium trimetaphosphate, sodium pyrophosphate, sodium phosphate and mixtures thereof.

6. The microcapsule according to any one of the preceding claims, wherein the polymeric shell comprises less than 20% by weight of a polymeric material based on the total weight of the microcapsule.

7. The microcapsule according to any one of the preceding claims, wherein it comprises:

a) an oil-based core comprising a perfume oil; and

b) a polyurea-based shell comprising cross-linked chitosan particles, wherein chitosan particles are cross-linked with phosphate based salt, preferably sodium triphosphate.

8. A process for preparing core-shell microcapsules as defined in any one of claims 1-7, wherein the process comprises the steps of:

1) suspending in water chitosan particles to form a water phase;

2) preparing an oil phase comprising a hydrophobic material, preferably a perfume oil;

3) adding the oil phase to the water phase and mixing them to form an oil-in-water Pickering emulsion, under conditions allowing the formation of core-shell microcapsule by interfacial polymerization and/or interfacial reaction,

wherein a polyfunctional monomer is added in step 1) in the water phase and/or in step 2) in the oil phase.

9. The process according to claim 8, wherein the polyfunctional monomer is chosen in the group consisting of at least one polyisocyanate, poly maleic anhydride, poly acid chloride, polyepoxide, acrylate monomers, polyalkoxysilane , melamine-based resin and mixtures thereof.

10. The process according to claim 8 or 9, characterized in that chitosan particles are obtained by:

(i) dissolving chitosan into water under acid conditions; and

(ii) increasing the pH to form chitosan particles.

11. The process according to claim 8 or 9, characterized in that chitosan particles are cross-linked and are obtained by:

(i) dissolving chitosan into water under acid conditions; and

(ii) adding a cross-linker into chitosan solution of step (i) to form cross-linked chitosan particles.

12. The process according to any one of claims 8-11, wherein the total amount of chitosan particles present in water phase is comprised between 0.01 and 10 wt%, preferably between 0.1 and 5 wt% based on the total weight of the water phase.

13. The process according to any one of claims 8-12, characterized in that the oil phase represents between 5 and 60%, preferably between 20 and 40% of the Pickering emulsion.

14. A consumer product comprising:

- a personal care active base, and
- microcapsules as defined in any one of claims 1-7,

wherein the consumer product is in the form of a personal care composition.

15. A consumer product comprising:

- a home care or a fabric care active base, and
- microcapsules as defined in any one of claims 1-7,

wherein the consumer product is in the form of a home care or a fabric care composition.