CLAIMS

1. A method of encapsulating a water-soluble active compound, the method comprising:

mixing an aqueous solution comprising a water-soluble active compound with an oil in the presence of a surfactant under high shear condition to form a water-in-oil emulsion;

adding an aqueous solution of octenyl succinic anhydride (OSA)-modified starch to the water-in-oil emulsion and homogenizing further to obtain a water-in-oil-in-water double emulsion; and

mixing an aqueous solution comprising a cross-linker selected from the group consisting of adipic acid dihydrazide and methylglyoxal with the thus formed double emulsion for cross-linking the OSA-modified starch, thereby forming starch microcapsules with the water-soluble active compound encapsulated within the starch microcapsules,

wherein the water-soluble active compound is selected from the group consisting of amaranth dye and L-ascorbic acid.

2. The method according to claim 1, wherein the surfactant is selected from the group consisting of sorbitan monooleate, low-HLB sorbitans and surfactants with low HLB value.

3. The method according to claim 1, wherein the oil is selected from the group consisting of light edible oils including sunflower oil, canola oil and olive oil.

4. The method according to any one of claims 1 to 3, further comprising purifying the starch microcapsules by means of dialysis.

5. The method according to any one of claims 1 to 3, further comprising freeze-drying the starch microcapsules to obtain the encapsulated water-soluble active compounds in granular or powdered form.