EMULSIFIED LIPOSOME COMPOSITION AND PREPARATION METHOD THEREFOR

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority of U.S. patent application No. 62/510,216, filed on May 23, 2017, the content of which is incorporated herein in its entirety by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0002] The present invention relates to a liposome solution, particularly to an emulsified liposome composition and a preparation process thereof.

2. The Prior Art

[0003] Liposomes are mainly made of phospholipids and are spherical vesicles formed by a lipid bilayer structure including an exposed hydrophilic layer and an internal hydrophobic layer. Since liposomes have a lipid structure similar to that of the cell membrane of organisms, they are well biocompatible and biodegradable, and can be widely used as a carrier for drug administration, release or delivery of related components. For example, the active ingredient is encapsulated in a liposome carrier and administered, which not only has the advantages of increasing the stability of the active ingredient, reducing toxicity and transporting various components, but also

WHAT IS CLAIMED IS:

1. A method for preparing an emulsified liposome composition, comprising the following steps:

   preparing a first solution, including providing 3% to 7% by weight of Butane-1,3-diol, 0.4% to 0.7% by weight of hydroxyacetophenone, and 0.4% to 0.7% by weight of Hexane-1,6-diol, followed by mixing evenly and dispersing;

   preparing a second solution, including providing 1% to 5% by weight of glycerol, 0.01% to 0.3% by weight of Xanthan Gum, and 0.1% to 0.3% by weight of Hydrolyzed sclerotium gum, mixing evenly and dispersing, adding 74%-94.4% by weight of water, heating until the glycerol, the Xanthan Gum and the Hydrolyzed sclerotium gum have no agglomeration, and cooling down;

   preparing a third solution, including providing 0.5% to 10% by weight of an active ingredient and 0.1% to 2% by weight of lecithin, and adding the active ingredient and the lecithin to the second solution, followed by stirring evenly;

   preparing a fourth solution, including homogenizing the third solution at a pressure of 300 bar to 600 bar and a temperature of 25 °C to 30 °C; and

   adding the fourth solution to the first solution, followed by stirring evenly.

2. The method according to claim 1, wherein the lecithin comprises a phospholipid, the phospholipid comprises a phosphatidyl ethanol amine and a phosphatidylcholine, and a weight ratio of the phosphatidyl ethanol amine to the phosphatidylcholine is 3-6:1.

3. The method according to claim 1, wherein the emulsified liposome composition forms a liposome, and the liposome has a particle diameter of 10 nm to 1000 nm.

4. The method according to claim 3, wherein the particle diameter of the liposome ranges from 300 nm to 400 nm.