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(71) Applicant(s):

GUANGZHOU HONGKEYUAN BIOTECH CO., LTD. [CN/CN]; Room 907, Building B3, No. 11 Kaiyuan Avenue Science Park, High-Tech Industrial Development District Guangzhou, Guangdong 510530 (CN) *(for all designated states)*

(72) Inventor(s):

ZHANG, Long; Room 907, Building B3, No. 11 Kaiyuan Avenue Science Park, High-Tech Industrial Development District Guangzhou, Guangdong 510530 (CN)

WU, Yanheng; Room 907, Building B3, No. 11 Kaiyuan Avenue Science Park, High-Tech Industrial Development District Guangzhou, Guangdong 510530 (CN)

GU, Wenyi; Room 907, Building B3, No. 11 Kaiyuan Avenue Science Park, High-Tech Industrial Development District Guangzhou, Guangdong 510530 (CN)

XU, Zhiping; Room 907, Building B3, No. 11 Kaiyuan Avenue Science Park, High-Tech Industrial Development District Guangzhou, Guangdong 510530 (CN)

LI, Jiang; Room 907, Building B3, No. 11 Kaiyuan Avenue Science Park, High-Tech Industrial Development District Guangzhou, Guangdong 510530 (CN)

WU, Peihong; Room 907, Building B3, No. 11 Kaiyuan Avenue Science Park, High-Tech Industrial Development District Guangzhou, Guangdong 510530 (CN)

(74) Agent(s):

ADVANCE CHINA IP LAW OFFICE; Room 4501, No. 6 Zhujiang East Road, Tianhe District, Guangzhou Guangdong 510623 (CN)

(54) Title (EN): NANOPARTICLE, AND PREPARATION METHOD THEREOF

(54) Title (FR): NANOPARTICULE, ET SON PROCÉDÉ DE PRÉPARATION

(54) Title (ZH): 纳米颗粒及其制备方法

(57) Abstract:

(EN): Disclosed in the present invention are a nanoparticle, and a preparation method thereof. The method comprises: mixing an organic solvent and a surfactant to obtain a solution A; mixing a first reactant solution with a functional substance solution to obtain a solution B; mixing a second reactant solution with a functional substance solution to obtain a solution C; enabling the second reactant to contact the first reactant to form precipitation; mixing solution A and solution B uniformly to obtain a solution D; mixing solution A and solution C uniformly, adding a DOPA solution to the resulting mixed solution, and mixing uniformly to obtain a solution E; adding solution E to solution D, and performing centrifugation on the mixture to collect a precipitated substance, so as to obtain nanoparticles having a single-layer film; and preparing a dispersion of the nanoparticles having a single-layer film, and adding, to the dispersion, a mixture of DOPC and cholesterol or a mixture of DOTAP and cholesterol, wherein particles in the resulting particle suspension are nanoparticles having a double-layer film.

(FR): La présente invention concerne une nanoparticule, et son procédé de préparation. Le procédé comprend : le mélange d'un solvant organique et d'un tensioactif pour obtenir une solution A ; le mélange d'une première solution de réactif avec une solution de substance fonctionnelle pour obtenir une solution B ; le mélange d'une seconde solution de réactif avec une solution de substance fonctionnelle pour obtenir une solution C ; le fait de permettre au second réactif d'entrer en contact avec le premier réactif pour former une précipitation ; le mélange de la solution A et de la solution B uniformément pour obtenir une solution D ; le mélange de la solution A et de la solution C uniformément, l'addition d'une solution de DOPA à la solution mixte résultante, et le mélange uniforme pour obtenir une solution E ; l'addition de la solution E à la solution D, et la réalisation de la centrifugation sur le mélange pour recueillir une substance précipitée, afin d'obtenir des nanoparticules ayant un film en couche unique ; et la préparation d'une dispersion des nanoparticules ayant un film en couche unique, et l'addition, à la dispersion, d'un mélange de DOPC et de cholestérol ou d'un mélange de DOTAP et de cholestérol, les particules dans la suspension de particules résultante étant des nanoparticules ayant un film double couche.

(ZH): 本发明公开了一种纳米颗粒及其制备方法:将有机溶剂与表面活性剂混合,得A液;第一反应物溶液与功能物质溶液混合,得B液;第二反应物溶液与功能物质溶液混合,得C液;第二反应物与第一反应物接触后能够形成沉淀;混匀A液、B液得D液;混匀A液、C液,并向所得混合溶液中加入DOPA溶液混匀,得E液;将E液加入D液,对所得混合物离心,收集沉淀,得单层膜纳米颗粒;制备单层膜纳米颗粒的分散液,并向分散液中加入DOPC、胆固醇的混合物,或者加入DOTAP、胆固醇的混合物,所得悬浮颗粒溶液中的颗粒即为双层膜纳米颗粒。

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