

Water dispersion technique

E-newsletter, April 2022

Kangcare Bioindustry Co.,Ltd



Many products because of the characteristics of itself can't dissolve in water phase fluid, this greatly limits the application of the product, we are Kangcare Bioindustry Co.,Ltd, focus to the study of water dispersion technology, according to the characteristics of different products, developed a series of products and solutions, make the product in soluble in water and has good stability.

1. Water soluble microcapsule powder

Microcapsule technology is a solid, liquid or gaseous substances embedding, sealed in a tiny polymer film, become a kind of solid particles in the product technology.

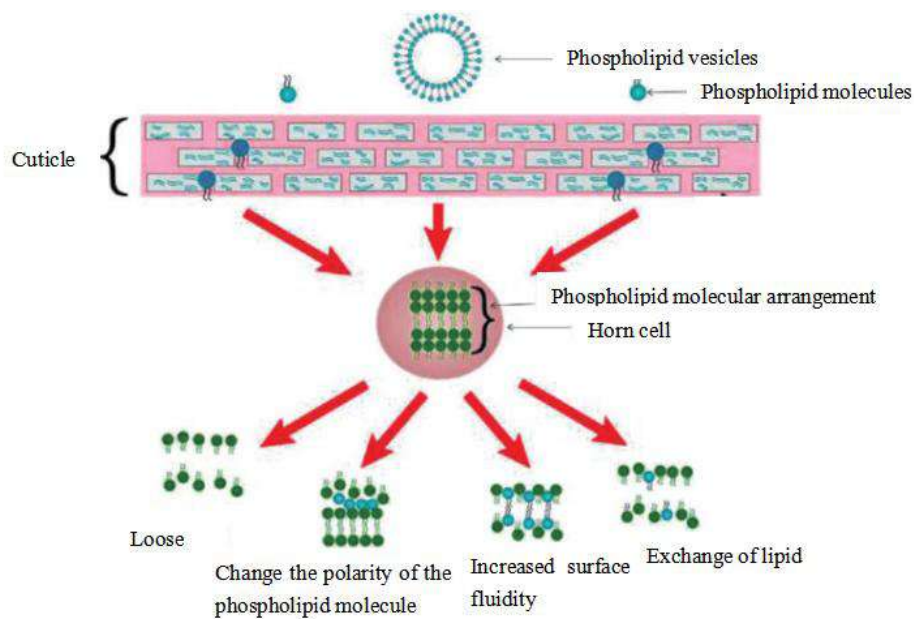
Technical characteristics:

Using the technique of water-soluble the micro capsule powder dosage forms not only can break through the limit, make the product has good solubility in water, also can protect wrapped materials, with the outside world should not be isolated environment, achieve maximum keep the original color, flavor, performance, and biological activity, prevent damage and loss of nutrients.

Our products: Oligin® DHA Algae Oil Powder CWS, Tocobest® D-alpha-Tocopheryl Acetate powder CWS, Tocobest® DL-alpha-Tocopheryl Acetate powder CWS, Coengy™ Coenzyme Q10 Powder CWS, Lutision™ Lutein Powder CWS, etc.

2.Liposome

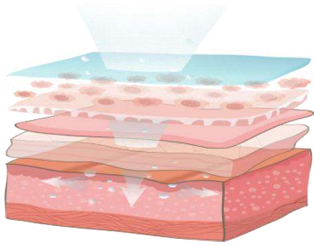
Liposomes are artificial membranes. The hydrophilic head of the phospholipid molecule was inserted into the water, and the hydrophobic tail of the liposome extended into the air. After agitate, the spherical liposome with double lipid molecules was formed, ranging in diameter from 25 nm to 1000nm. The vesicles, formed using bilayer membranes of phospholipids, can encapsulate both fat-soluble and water-soluble components.



Technical characteristics:

a. Liposomes have a high affinity with the human body. Liposomes are a kind of phospholipid as the main component and have a double-layer molecular structure similar to cell membrane.

b. In cosmetic applications, liposomes can easily penetrate pores and the gaps between cuticle cells to deliver effective ingredients to dermis and basal layer, so that the skin can absorb more moisture and nutrients. Oral liposomes can be released slowly, delaying renal excretion and metabolism, thus prolonging the action time and increasing absorption efficiency.



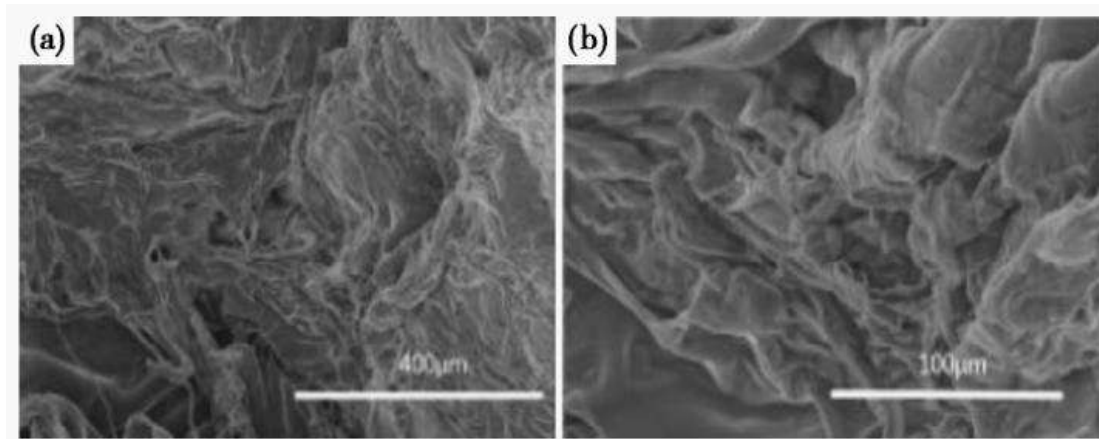
c. To improve the stability of raw materials, liposomes can wrap some active substances with strict preservation conditions, making products more stable.

Our products: Liposomal Retinol, Liposomal Vitamin C, Liposomal Glutathione, etc.

3.Swelling technology

Sodium hyaluronate is a kind of high polymer, which can form a three-dimensional network structure by swelling, and has good water retention, viscoelasticity and adjustable microstructure. Due to the large pores and high water absorption energy of hydrogel, the mechanical strength is low, the inorganic materials composite into the water glue bracket. Both polar and non-polar substances can find suitable dissolution environment in micelles, which can improve their solubility, especially

that of non-polar substances.



Technical characteristics:

While improving the solubility of raw materials, it does not change the chemical structure of raw materials, and sodium hyaluronate itself has the effect of moisturizing and hydrating, which can be widely used in cosmetics and food.

Our products: Fullerene sodium hyaluronate solution, Natural Ferulic Acid sodium hyaluronate solution

We can also according to customer needs, to provide the best water dispersion technology solutions!

水分散技术

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Kangcare Bioindustry



很多产品因为本身的特性无法溶于水相液中，这极大的限制了产品的应用，我们南京乔康生物科技有限公司专注于水分散技术的研究，针对不同产品的特性，开发了一系列产品和解决方案，使产品在溶于水的同时具有较好的稳定性。

1. 水溶性微囊粉

微胶囊技术是将固体、液体或气体物质包埋、封存在一种微型聚合物薄膜中，成为一种固体微粒产品的技术。

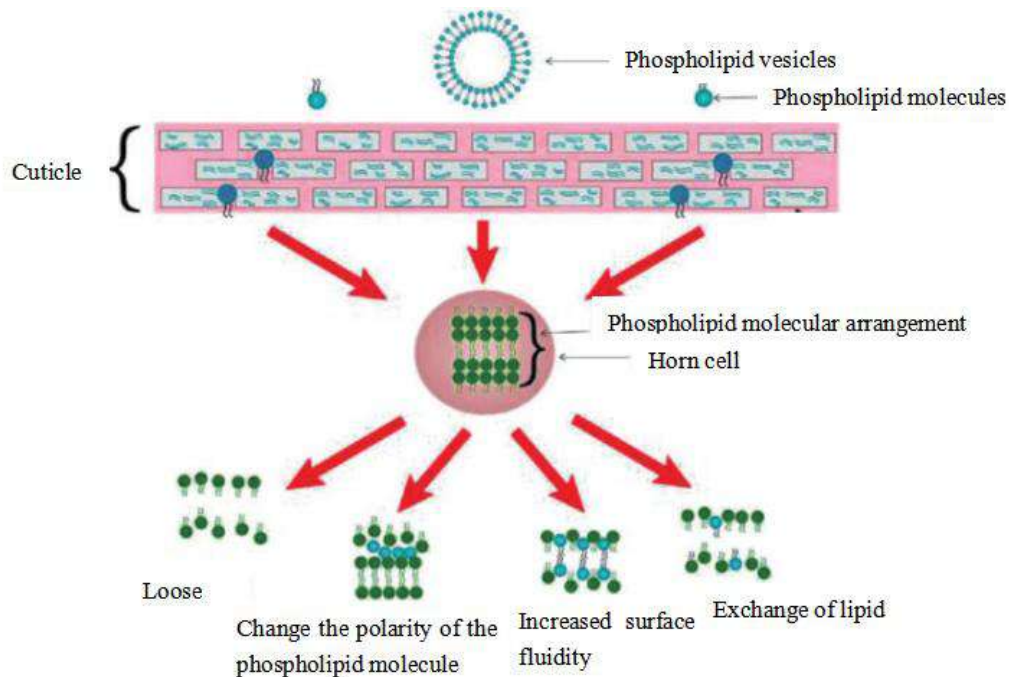
技术特点：

采用这项技术制成的水溶性微囊粉不仅可以突破剂型限制，使产品在水中有较好的溶解度，还能够保护被包裹的物料，使之与外界不宜环境相隔绝，达到最大限度地保持原有的色香味、性能和生物活性，防止营养物质的破坏与损失。

我司产品： DHA 藻油粉，维生素 E 微囊粉，辅酶 Q10 微囊粉，叶黄素微囊粉

2. 脂质体

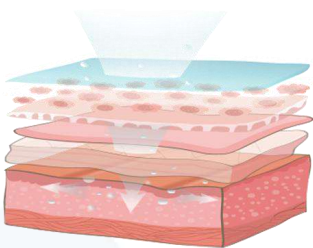
脂质体 (liposome) 是一种人工膜。在水中磷脂分子亲水头部插入水中，脂质体疏水尾部伸向空气，搅动后形成双层脂分子的球形脂质体，直径 25~1000nm 不等。这种利用磷脂双分子层膜所形成的囊泡，可以同时包裹脂溶性成分和水溶性成分。



技术特点：

1. 与人体的亲和度高，脂质体就是一种磷脂为主要成分，具有与细胞膜相似的双层分子结构。

2. 化妆品应用中，脂质体可以轻易的穿透毛孔和角质层细胞的间隙，把有效成分送到真皮层和基底层，让皮肤吸收到更多的水分和养分。口服脂质体可以缓慢释放，延缓肾排泄和代谢，从而延长作用时间，增加吸收利用率。

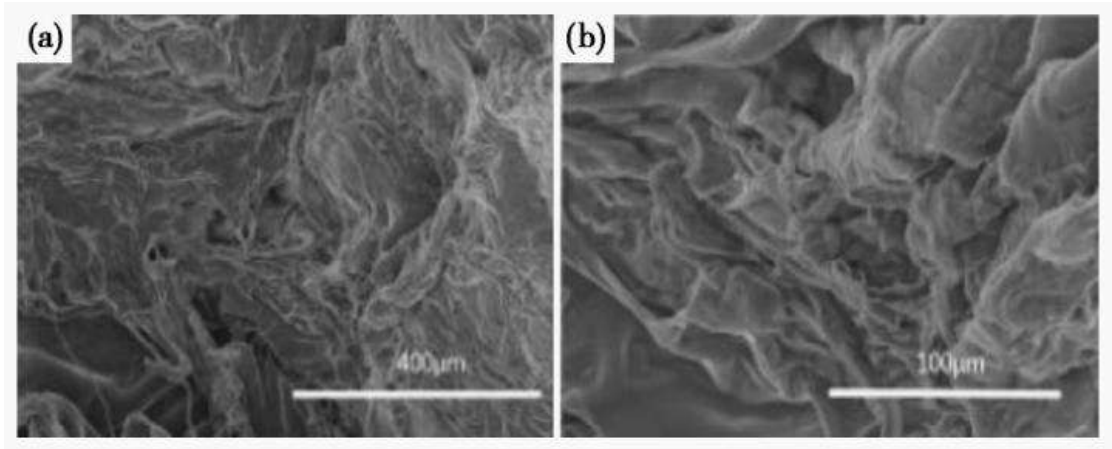


3. 提高原材料的稳定性，脂质体可以把一些保存条件苛刻的活性物质完好的封包起来，使产品更加稳定。

我司产品：脂质体 VC，脂质体视黄醇，脂质体谷胱甘肽

3. 溶胀技术

透明质酸钠是一种高分子聚合物，它可以通过溶胀形成的三维网络结构，具有良好的高保水性和粘弹性及可调的微结构，由于水凝胶有较大孔和较高吸水能，力学强度低，将无机材料复合进入水胶支架。极性和非极性物质都可以在胶束中找到合适的溶解环境而存身其中，从而提高其溶解度，尤其是非极性物质的溶解度。



技术特点：

提高原料溶解度的同时，没有改变原料本身的化学结构，且透明质酸钠本身具有保湿补水的功效，在化妆品和食品中都可以广泛使用。

我司产品：富勒烯透明质酸钠水溶液，阿魏酸透明质酸钠水溶液

我们还可以根据客户的需要，提供最佳的水分散技术解决方案！