

# **Automatic Nanocrystals Microneedle Therapy Equipment DM-H201**



**User manual**

## 1 Technical theory (instruction of Nanometer biology technology)

Nanometer (nm) is length units, 1nm is one billionth meter, and around four atom diameter. The diameter of DNA chain is around one nanometer. Nanometer technology is the high technology in 21 century, and nanometer materials have special performance that different from traditional materials. Nanometer technology is the revolutionary innovation of material technology. Nanocrystals is developed by eight Chinese scientist, can improve the skin absorption ability of nutrition products for ten times. It is the highest achievement of biological nanometer technology, and has 12 patents in USA and China. Nanocrystals high efficiency beauty crystal plate is made from monocrystalline silicon according to skin structure and nanometer technology.



The advantages of this product: can release the skin care products homogeneously and slowly, absorbed high efficiently, safe and no wound, simply and easy operate.

The contact point of the nanocrystals is one of ten thousandth diameter of a hair, open millions of pore in short time, improve the pore absorption of nutrition for 10~20 times. The skin pore will close after 20 minutes, safe, high efficiency and no wound.

## 2 How nanocrystals works

When the very thin nanocrystals contact on skin, it can open the thin pore of cuticle in the skin, and let the active element transport to the area of blood capillary, improve the permeation and absorption, then is better than the traditional permeation of only 0.3%. The stiff level and compatibility of high purity monocrystalline silicon (99.999%) ensure the nanocrystals safe and reliable.

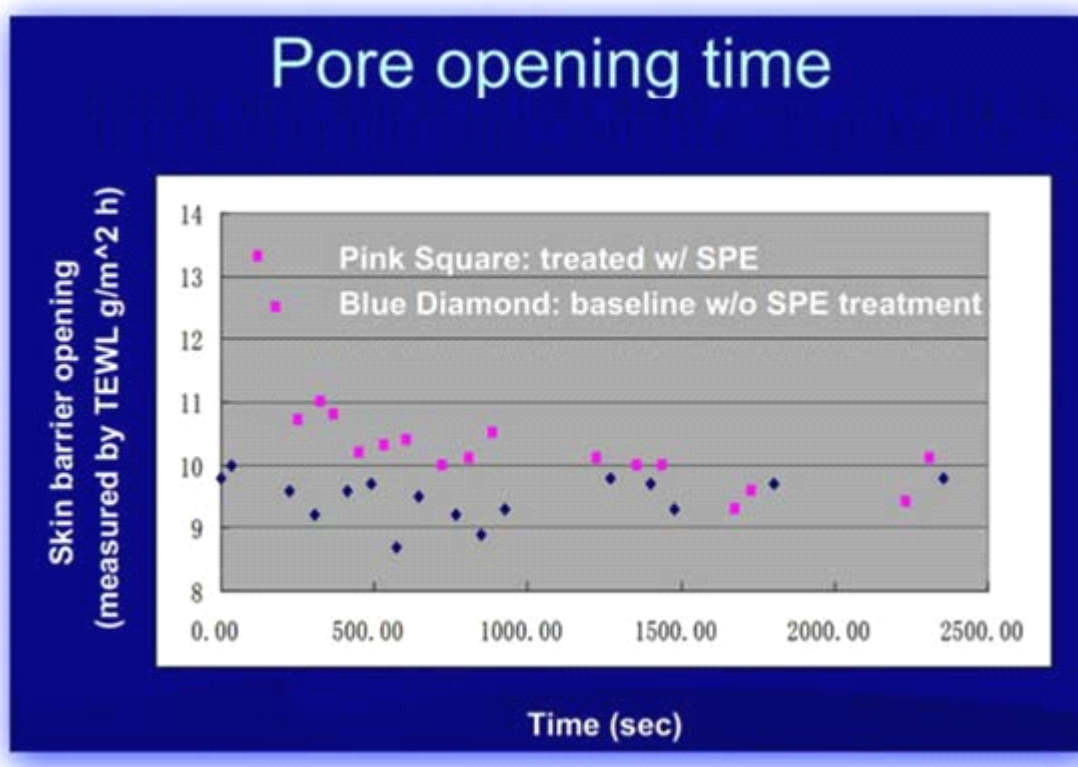
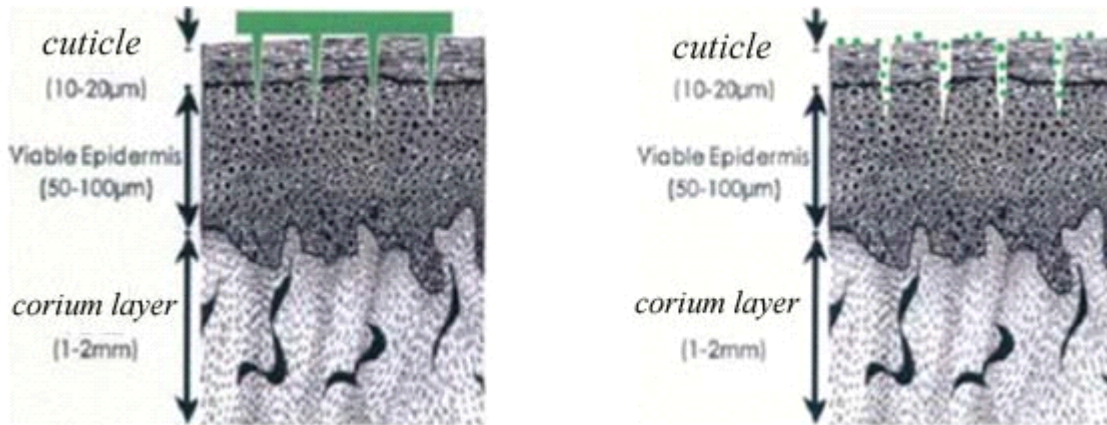
## 3 Three characteristics of nanocrystals

### First safe:

The beauty equipment for absorption of the skin care products are mainly as wound micro needle, physical micro wave, laser and chemical penetration

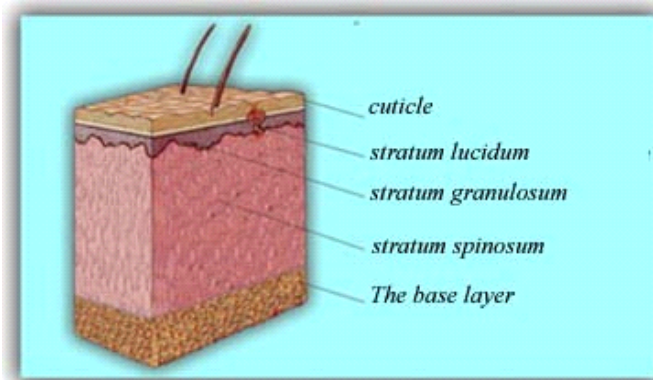
enhancer. These methods may insert the skin and hurt, easy infection, or have toxic and side effect and harmful for skin health.

Nanocrystals is designed and produced according to the skin, and the material is 99.9999% high purity monocrystalline silicon, without Lead and Mercury, have great biology compatibility. The contactor of nanocrystals is only 1/100 of skin interval. After open the pore, the skin will close in 20 minutes



**Second: No pain and no wound**

No pain and no wound, the contacting spot of nanocrystalline to skin is less than 80nm, height is 120µm, the depth of cuticle is 30µm, the depth of cuticle and epidermal layer is 200µm, then nanocrystalline can open the cuticle but can not hurt the corium layer and subcutaneous nerve, so no hurt and no wound.

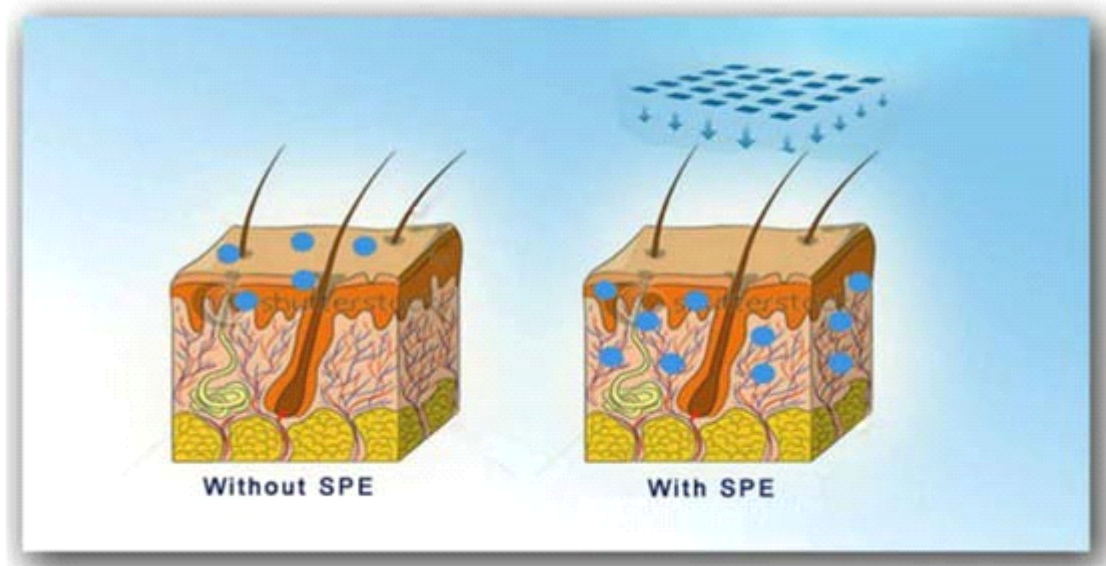


*The depth of cuticle and epidermal layer is 200 $\mu$ m. The height of nanocrystalline micro-needle less than 120 $\mu$ m. So can not hurt the corium layer, and the pore will close in 20 minutes.*

### **Third: Permeate high efficiently**

The absorption of nutrition products is the key problem of all the skin care companies, and it has not resolved completely until now. the skin care products can not permeate through the cuticle if with not physical microwave, laser, wounded micro-needle or chemical penetration enhancer, then the product can not reach the target area and with low level of absorption (only 0.3%). But the microwave, laser, wounded micro-needle or chemical penetration enhancer have deficiencies.

Use nanocrystalline can transport the active element to 60~70 micrometer under the skin, improve the permeating ability for skin care products then have effect rapidly. can release the skin care products homogeneously and slowly and 20 times higher than the traditional absorption. If use this equipment will have obviously result for the same skin care product.



#### 4 Nanocrystalline compare with other methods

Method	Technology	Theory	Skin care products	Permeate depth	result	deficiency	Uncomfortable feeling	Time
Hand massage	No	Physically improve blood recycling	any	epidermal layer	Absorption < 0.3%	Absorption very low	No	any
Traditional micro-needle			mild	Hurt corium layer	Permeate more sufficient.	Hurt wound and easy infection , professor use.	hurt	>30minutes
Ultrasonic beauty equipment	Ultrasonic	High frequency ultrasonic vibrate the skin, have clean and massage function	Stable chemical property	4~6 cm under skin	Skin health care	Skin too tired and harmful for eyes, pregnant and heart disease person is forbidden to use, the equipment should be qualified.	High frequency vibrate and area lose blood	>30minutes
Cation permeation equipment	Electric field	Electric field effect and cation permeation	Water soluble	superficial cuticle	Skin health care and superficial permeation	Use with water soluble product. Need professional operation.	No	<15minutes
Ultrasonic and Cation permeation equipment	Ultrasonic and electric field	Ultrasonic vibrate skin and electric field effect on the	Big molecule	superficial cuticle	Skin health care and superficial	Skin too tired and harmful for eyes, pregnant and	High frequency vibrate and area lose blood	>30minutes

nt		skin have the clean and massage function improve absorption			permeation	heart disease person is forbidden to use, the equipment should be qualified.		
electroporation beauty equipment	Electric field	High electric field improve the permeability of cytomembrane, absorb the molecule around the cell.	Big molecule	superficial cuticle	Have affection for special cosmetic	Need reliable equipment, special cosmetic and technician	uncomfortable	>30minutes
Nanocrystalline	Biology Nanotechnology	Open the pore of the skin, improve the absorption of skin care products.	any	To 40um of the epidermis	Improve 10~20 times of absorption	Nanocrystalline can not reuse	No	<15 minutes

**5 Operation steps:**

- 1 installs the nanocrystalline on the equipment
- 2 turn on the power, screw the adjusting button and choose the suitable permeation depth
- 3 clean the skin, and put the skin care products on the treating area
- 4 start the equipment, put the permeation equipment on the skin and move 1~2 times
- 5 keep moving the permeation equipment and should not longer than 3 seconds on one place
- 6 turn off the equipment when treating finish, and take out nanocrystalline and threw it.
- 7 can not touch the equipment if hand is wet when power on.
- 8 Nanocrystalline is one time using part and can not reuse.



9 the machine is not disassemble, and can not used for children and animal.

## 6 Notice:

### First: Nanocrystalline is not reusable:

The nanocrystalline Special for the equipment, after using, the scurf and skin care products maybe attached on the contacting point, nanocrystalline material is different from the traditional material, in common condition, can not clean it with common clean agent and disinfectant. If reuse nanocrystalline, there are skin care products covered, and there are germ and virus in the skin care product and scurf. It is harmful for skin, maybe cause skin inflammation when it is serious.

### Second: The best time to use the nanocrystalline

every night before sleeping the bloomy time of skin, and have the best absorption effect for the skin care product.

### Third: What skin care products are better to use with this equipment

This equipment can use with many skin care products, and improve the absorption for 10~20 times. Client should choose the skin care products which are suitable for their skin, the skin care products should be qualified, safe and good effect. For example the whitening, wrinkle removal, acne removal, pigment removal and striae gravidarum removal skin care products are suitable to use with this equipment.

## 7 Applicable persons:



## 8 effect of nanocrystalline

*Improve absorption of skin care products*

*more than 10 times*



*Whitening and lifting*



*Wrinkle removal  
and lifting*

*Face tightening  
and lifting*

*striae gravidarum  
removal*

*Acne removal*

## 9 Frequently Asked Questions

Question 1: how long should nanocrystalline do on skin?

Answer: vertically do on skin 3~5 seconds is suggested.

Question 2: when do the treating have best effect in one day?

Answer: every night before sleeping the bloomy time of skin, and have the best absorption effect for the skin care product. If the skin is sensitive, can reduce the treating frequency according to the skin.

Question 3: how many days have the Nano crystalline treating is suitable?

Answer: one week for one time is suggested, also can use one time per day, and before sleeping will be better.

Question 4: Nano crystalline works on skin, how long the transport pore opening?

Answer: Nano crystalline vertically work on skin, can open the pore and will be close in 20 minutes.

Question 5: is there side effect if use Nano crystalline for long time?

Answer: Nano crystalline is made from high purity silicon material and physical equipment, no chemical penetration enhancer then no chemical side effect. penetration enhancer work on skin, no hurt and no wound, can use this



equipment for long time.

Question 6: if different force for different area of skin when have Nano crystalline treating?

Answer: according to different characters and adaptation of skin, the force is different according to different area. For the sensitive area (skin around eye), should not be too heavy. The other area should be moderate force, can feel but no hurt will be suitable.

Question 7: why after the Nano crystalline placed on the equipment and the position of Nano crystalline is different?

Answer: when it working, it need spring to control the vibrating range. When producing and using the Nano crystalline, the spring may be at any place, so will have different length and it is normal. You need to adjust the scale and let the Nano crystalline align with the side.