

**Cosmetics and Chemicals Research** 

**B- 310/13** 

# APPLICATION RESEARCH REPORT OF COSMETIC TREATMENT USING THE DEVICE PLAZMAFRAX<sup>™</sup>

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The basis of conducting the research:

The order of 09.02.2013 issued by Institute Lesthezone and research materials in the original packaging of the product , delivered on 14.02.2013. **The manufacturer:** Institute Lesthezone **The duration of the research :** 18.02.2013 - 20.05 2013

# INGREDIENTS of individual products used for the treatment HYALUROFAX PROTECTION CREAM :

Aqua (Water), Cl<sub>12-20</sub> AcidPEG-8 Ester, Prunus Persica (Peach) Kernel Oil, Simmondsia Chinensis (jojoba) Seed Oil, Squalane, Butyrospermum Parkii (Shea) Butter, Glycerin, Sodium Hyaluronate, Cyclopentasiloxane, Palmitoyl Pentapeptide-4, Panthenol, Allantoin, Bisabolol, Tocopherol, Glycine Soja (Soybean) Oil, Cetearyl Alcohol, Benzyl Alcohol, Ethylhexyl Stearate, Sodium Stearate, Sodium Carbomer, Sodium Polyacrylate, Trideceth 6, Polysorbate 20, Dimethicone, Butylene Glycol, Methylchloroisothiazolinone, Methylisothiazolinone

#### ACTIVE LIFT MASK

Magnesium Carbonate Hydroxide, Algin, Talc, Calcium Sulfate, Spirulina Platensis, Sodium Lauryl Sulfate ACTIVE LIFT

Aqua, Tetrasodium Pyrophosphate

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#### ANTIPROPIONIBACTERIUM ACNE – PHOTO NANO FORMULA

D-Panthenol, Hamamelis Virginiana, Camelia Synensis Extract, Allantoin, Bisabolol, Dipotassium Glycyrrhizate, Ferulic Acid, Arnica Montana Flower extract, Bambusa Vulgaris, Aloe Barbadensis, Lecithin, Glucose

### **FEATURES:**

#### • Packaging of the products:

products delivered for the treatment in original, very aesthetic, practical containers.
 Description of the products used for the treatment:

NANOCELL HYALUROACID SHORT- LONG CHAIN PHOTOFORMULA - the preparation - colorless, odorless in the form of gel, containing in its composition high and low molecular hyaluronic acid, which makes the skin smooth and it ensures the skin youthful appearance. Hyaluronic acid was prepared in nanotechnology and that's why it ensures long-lasting and deep moisturization.

#### HYALUROFAX PROTECTION CREAM

- White, odorless cream with a light consistency is an innovative product deeply moisturizing and smoothing wrinkles to ensure long-lasting effects. Long-and short-chained hyaluronic acid moisturizes the skin from the inside out and leaves it smooth and soft. Natural oils – from peach, soya, jojoba stones have a relaxing effect, smoothing the skin and controlling the level of moisturization .However, bisabolol and vitamin E give the skin a radiant glow and protect against the negative effects of environmental factors.

ANTI PROPIONIBACTERIUM ACNE – PHOTO NANO FORMULA

- Light brown, odorless liquid

ACTIVE LIFT MASK + ACTIVATOR

- powder and watery liquid when mixed and applied on the skin dries to form a flexible mask. It contains alginic acid and spirulin, produced from brown and blue algae.

It strongly stimulates cells regeneration and improves moisturization, leaving the skin refreshed and radiant. The mask is suitable for all skin types.

### • The information provided by the customer on the principles of action

### and technology used in the system PLAZMAFRAX<sup>™</sup>:

According to the manufacturer PLAZMAFRAX<sup>™</sup> is an innovative system for deep skin regeneration. Technology PLAZMAFRAX<sup>™</sup> uses the latest achievements in the field of cosmetic treatments and in aesthetic medicine. This treatment is the perfect way to rejuvenate the skin, restoring its health and vitality. According to the manufacturer it is possible through the use of advanced plasma technology. The impact of technology based on the use of electric arc with appropriately selected parameters and selective currents, so that achieves the desired therapeutic effect. In the innovative device PLAZMAFRAX<sup>™</sup> plasma is produced by a high voltage DC and AC. It is the substance reminding gas because it is composed of both neutral particles and electrically charged and is electrically neutral. As a result of the thermal motions of ions, electrons, atoms, or particles in the plasma, there is chaotic temporary lack of regularity of spatial arrangement of electrical charges. The lack of regularities causes a number of specific phenomena in plasma, that is why plasma is called quasi electrically neutral. Coulomb forces cause the interaction of charged plasma particles and therefore we can not treat it as gas. The plasma can be considered both as a substance close to the liquid, and as a substance consisting of a large collection of individual particles- like in gases. By using the above-mentioned technologies and specially adapted heads with a gold coating, we can without contact: peel the skin, thereby facilitating the penetration of active ingredients into the skin, stimulate fibroblasts to synthesize collagen much faster and in a selective way fractionally treat different parts of the skin including wrinkles. Bacteriologically, the treatment is highly effective due to the easy access to narrow and limited, difficult to reach, places (e.g. sebaceous glands). The results of clinical studies have shown that NO gas, with its well-recognized properties, is effective in disinfecting tissues and can be used in treatment of chronic wounds because of its positive effect on immune processes. According to the manufacturer innovating technology of PLAZMAFRAX<sup>™</sup> using in its action AC, DC and selective currents, is beneficial for the reconstruction of "energetistic structure" and biostimulation of cells, the insertion of active ingredients and also of high quality synthesis of collagen. The energy emitted by plasma reaches deep into the skin, stimulating the regeneration and the creation of new skin cells. Dead skin cells are removed due to the effect of natural peeling. As a result we have our skin with shallow wrinkles and furrows, full of glow and vitality. Additionally, the heat, which is generated during plasma operations, has a positive effect on re construction of collagen. Selective currents "PS" with a frequency of 10 Hz and changing amplitude have an impact on improved skin blood circulation, improvement of color of the skin, oxvgenation and its detoxification.

Selective currents "S" with a frequency of 3.3 Hz and changing amplitude influence among others on the narrowing of the blood vessels. Never before have touchless cosmetic treatments brought such spectacular results. PLAZMAFRAX<sup>™</sup> is a device for professional beauty salons, which aim at the latest achievements and intensive development.

#### Indications of treatments:

- Helps to treat acne (production of ozone by plasma )
- · Gives peeling effect
- Acts anti-inflammatory
- · Strengthens the defense processes of cells
- Restores the balance of the environment inside and outside the cells
- · Improves elasticity and density of cells
- · Forces to renew the cells of the true skin
- · Seals the blood vessel walls
- · Biostimulates the cells
- · Allows the active ingredients to enter

#### **Research Method:**

• All testing procedure called PLAZMAFRAX<sup>™</sup> carried out under the supervision of medical specialists dermatologists on test persons – volunteers.

• Instrumental research performed using equipment Cent MC750 Multi Skin and ANTERA camera.

The selection of test persons - volunteers for the study:

• Selection of test persons - volunteers was carried out by a dermatologist in accordance with the Helsinki Declaration of 1964. (With subsequent amendments),

Polish regulations, the European Union guidelines of Cosmetics Europe, applying criteria of inclusion-exclusion.

- The study involved 10 people with acne skin at the age of 19-24 years.
- The following people were excluded from the treatment:
- with tumors,
- with active inflammation within treated area,
- with bacterial and viral , fungoid infections,
- with confirmed neurological disorders,
- with the presence in the tissues of metal implants (screws, plates, etc.,)
- with cardiac arrhythmia or any cardiac pacemakers, stimulators
- with impaired clotting,
- pregnant or breast-feeding,
- with all kinds of chronic diseases such as: atopic dermatitis, psoriasis and autoimmune LE
- with the uncontrolled and untreated endocrine disorders / diabetes, an overactive or underactive thyroid /.

• Before treatment skin test persons were examined by specialists of dermatology and when it acceded to test on the test persons' skin there were no symptoms, signs of irritation or allergy requiring any medical treatment.

• Skin and subjective feelings of test persons were examined and evaluated by dermatologists before treatment, during, and after series of six treatments.

• The treated people delivered additional but important information concerning the operation of the treatment. And that is why they remained in constant contact with their doctor.

### PLAZMAFRAX<sup>™</sup> treatment procedure:

The entire test consisted of 6 treatments carried out on a group of 10 test persons every 10 days + / - 3 days. Test persons - volunteers were instructed and obliged to prepare properly for participation in the evaluation of the effectiveness of the treatment "PLAZMAFRAX<sup>TM</sup>", and in order to exclude any possible side effects: a) before starting the treatment:

- do not use sunbathing and solarium for a period of four weeks,

- do not perform hair removal in the area that is to be subjected to treatment for at least 7 days before

- do not perform peeling: mechanical or chemical on the face for at least 7 days before treatment,

b) after the treatment:

- moisturize the skin several times a day,

- for 7 days protect the skin from UV blockers 50 +

- for 7 days do not use the sauna, swimming pool, fitness center, etc.

### Stages of the treatment:

PREPARATION:

1. Removing the make up + drying of the skin

**2.** Putting on the right wrist passive electrode / the moist gauze pad was placed under the electrode /.

#### THE TREATMENT:

**3.** *1-st step*: according to the manufacturer's reccomendation the treatment was performed at first with a flat head : the head was attached to the skin and without lifting the skin was massaged for eight minutes (the face was divided into four parts and each of them was treated 4 minutes.), thereby obtaining a natural peeling effect

(applied current of 3 - 6)

*2-nd step*: the treatment was performed with conical tip , which was applied to the skin and only when the "start" button was pressed, the tip was slowly taken away (about 5 mm) and new next treatment of any skin change was performed - moving the tip zigzagging across each change maximum 3 times

(applied current 5 -6); in the group were treated various kinds of skin rash- acne and after acne,

*3-rd step*: on the skin of the face was applied anti-acne ampoule , using a flat head and its full contact with the skin, the massage all over the face was performed once again for about 16 minutes. (The face was divided into four parts and each was treated 4 minutes)

#### **B. INSTRUMENTAL RESEARCH**

Test persons- volunteers were subjected to series of measurements, which aim to determine:

- changes in color of the skin

- the degree of smoothness of skin structure

- changes in the quantity of different types of acne rash in a specified field of view

The measurements were carried out in an air conditioned area at a temperature of 22°C and relative humidity of 40 - 60%

- The measurement of color of the skin.

The area of the study was designated on the skin of the face on each test person. The measurement of skin color was made before the treatment, and next measurements were taken at the end of the treatment.

#### - The measurement of skin smoothness.

The area of the study was designated on the skin of the face on each test person The measurement of skin smoothness was made before the treatment, and next measurements were taken at the end of the treatment.

Research with ANTERA camera on test persons were taken on selected places on the face - depending on the location and type of changes: on the cheeks, forehead, around the eyes, for this purpose defined the amount of different types of acne rash before treatments and after series of 2 and 6 PLAZMAFRAX<sup>™</sup> treatments.

**Table 1** Number of acne rash in the field of view on the individual areas of the face

Test person	Controlled area		
	Before	After 2 treatments	After 6 treatments
I	18	13	7
II	9	3	1
III	13	7	5
IV	7	3	1
V	12	9	6

VI	14	9	6
VII	21	12	9
VIII	15	11	7
IX	17	14	9
X	12	5	3
Change %	100%	- 38%	-61%

**Table 2** The average results of measurements of the facial skin smoothness during "PLAZMAFRAX<sup>TM</sup>" treatment in units of measurement

Test person	Sn	noothing
	Before	After 6 treatments
I	15,2	13,8
II	10,6	7,9
111	13,4	11,8
IV	8,6	7,1
V	21,3	16,5
VI	16,9	14,7
VII	13,8	10,6
VIII	20,2	16,9
IX	11,7	11,0
x	14,4	12,3
Average results	14,61	12,26
Average results %	100%	- 16%

Test person	Color	
	Before	After 6 treatments
I	0,75	0,69
II	0,90	0,54
	0,71	0,65
IV	1,03	0,80
V	0,92	0,81
VI	0,85	0,67
VII	1,10	0,86
VIII	0,96	0,73
IX	0,84	0,55
X	0,90	0,72
Average results	0,896	0,702
Average results %	100%	- 22 %

**Table 3** The average results of measurements of the facial skin color during "PLAZMAFRAX<sup>TM</sup>" treatment in units of measurement

• Research carried out with **VISIOFACE QUICK** camera and **ANTERA** showed:

- smoothness of the skin structure approximately 16% after 6 treatments,

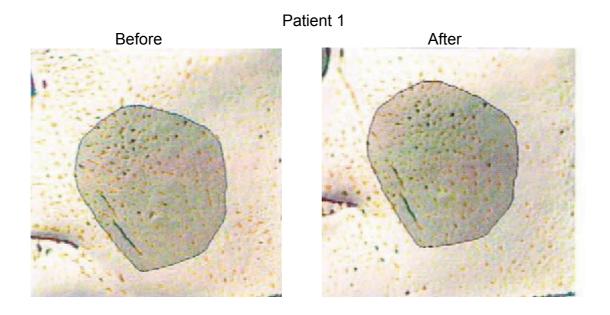
- lightening up of the skin erythema color over 20% after 6 treatments,

- reducing the number of different types of acne rashes, average of

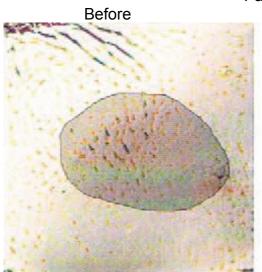
nearly 40% after two treatments, and over than 60% after series of six

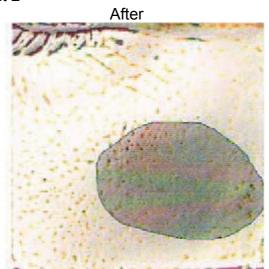
treatments.

# The smoothness







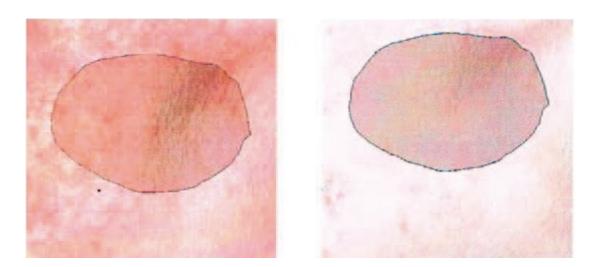


# The color



Before

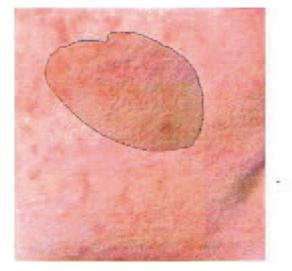
After

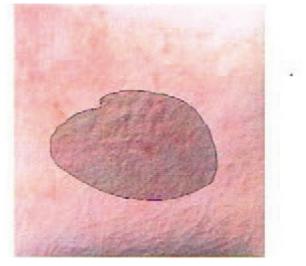




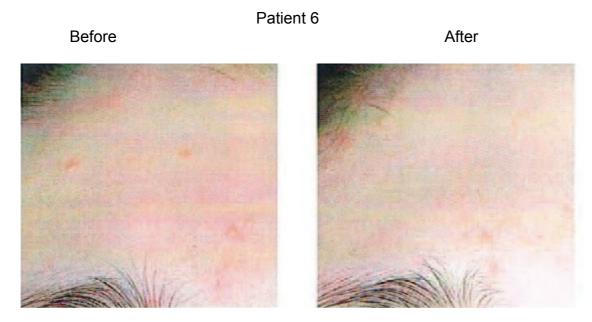
Before

After





# The amount of acne changes





Before

After





## CONCLUSIONS

On the basis of research carried out by dermatologists, individual assessments of test persons and collected interviews it was found that:

- Products used for cosmetic treatment "PLAZMAFRAX<sup>™</sup>" did not cause any symptoms which would point to the harmful such as allergic or toxic irritating effect on the skin.
- None of the people involved in the assessment treatment did not report any discomfort symptoms such as itching, burning, pulling, or other circumstances that might indicate the negative influence of the products used on their skin.
- Issued opinion does not apply to people who are allergic to any of the

ingredients used in the preparation.

• Based on the opinion of test persons who have provided important

information concerning the acting of the product and the observation and

instrumental research, carried out by dermatologists ,can conclude, that

series of treatments "PLAZMAFRAX<sup>™</sup>" can be recommended and applied

for young people to improve the appearance and condition of acne skin.

• selective currents have been used in medicine, cosmetology, physiotherapy

for many years and have been assigned a very positive effect on human

tissues.

• Using selective currents with adequate power and frequency in

"PLAZMAFRAX<sup>™</sup> treatment , together with additional products, cause

very positive multi-directional effects on the skin.

- After series of treatments performed according to the manufacturer's instructions, it can be observed:
  - faster reduction of various types of acne rashes,
  - faster regeneration,
  - smoothness of the skin as a peeling effect.
- Increasing the temperature causes widening of the blood vessels so that

there is an increase in transport of oxygen into the tissues, increase in tissue

metabolism and faster removal of metabolism products.

It is known that in all the cells of the organism as a result of biochemical processes there is the spread of electrical signals and dispersal of the ions. During the cells aging process the bio-currents disorders take place and also the level of the immunity changes. The decreased immunity and the change in electric potential have a negative effect on acting of weakened cells and affect on metabolic processes, therefore providing the cells adequate energetistic structure allows to :

- strengthen the defensive processes
- improve transport of salt, ions and water outside and inside the cells of the body
- better absorb of the active ingredients contained in the products used to carry it out
- Touchless micro-fractionation of the skin, known by using CO<sup>2</sup> lasers before, forces the cells to a deep renewal.
- "PLAZMAFRAX<sup>™</sup> treatment has a bio-stimulating effect when during carrying out that process the equalization of electric potential of cells takes place and that is why a restoration of environment balance inside and outside the cells occurs.
- Due to the bio-stimulating action after the treatment, the facial irritation symptoms disappear and for a long time the skin is protected from the damaging effects of external factors.
- The effect of peeling makes various kind of pigmentation disorders and spots to disappear so the skin becomes healthier and more balanced in color.

- Test persons and carried out instrumental researches confirmed that sealing the walls of the blood vessels, that occurs during the treatment, about which the manufacturer wrote, contribute to the visible reduction of erythema on the face on average of 22% after series of six treatments.
- The skin after series of treatments becomes radiant, brighter, relaxed, free from tiredness and stress.
- The ozone that has been proved to act inflammatorily, produced during the treatment significantly contributes to the rapid regression of various kinds of acne rash.
- Due to the peeling the pores are thoroughly cleaned, less visible, and the structure of the skin becomes more smooth.
- Test persons confirmed the manufacturer's assumption that series of "PLAZMAFRAX<sup>TM</sup> " treatments regulates production of sebum among patients with acne skin.
- Test persons found that the treatment relaxes and refreshes.
- Persons, carrying out "PLAZMAFRAX<sup>™</sup> " treatment confirmed the easy way of performing each phases of treatment and found high functional advantages of the particular preparations used during the treatment, which were characterized by:
  - appropriate consistency,
  - proper adhesion to its destination,
  - appropriate absorption,

- high efficiency,
- in case of need the possibility of easy removal from the place it has been applied,
- adequate durability of the effect, which does not change during the application.
  - "PLAZMAFRAX<sup>™</sup> " with its unique, highly innovative form is a very good form of skin care for young people with acne skin.
  - Tested " PLAZMAFRAX<sup>™</sup> , treatment meets usability set by the manufacturer.

Researcher 1	Researcher 2	DIAGNOSTIC-TEST
/ seal/	/seal/	/company seal/
MedD. Adam. A. Wroński	MedD. Aleksander Wrońs	ski

1. The report may be copied only in its entirety. Another form of copying requires a written

permission of the Contractor.

2. The research report was done in two identical copies. (copy 1 -client, copy 2 - Diagnostic

Test).

3. The results relate only to the product of the composition formula specified by the Client .