

## Bio-grams with and without filter – principles of application

Image on the electrode is formed by two processes: emission of electrons and photons by the subject, and multiplication of electrons in electron avalanches propagating along the electrode. Fig.1,2 demonstrate the principle of image formation from the metal cylinder, which have the homogenous emission properties along the surface.

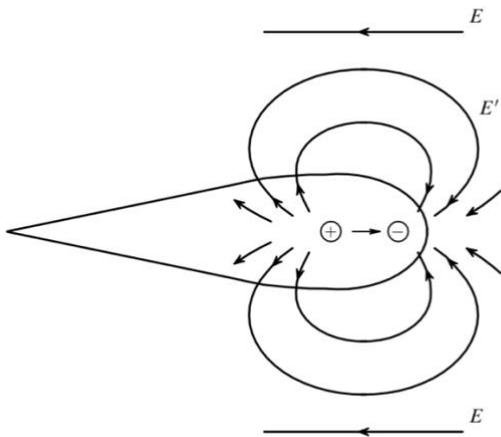


Fig.1. The principle of electron avalanches propagation along the surface.

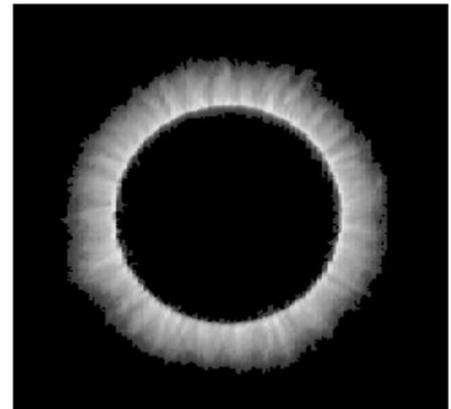
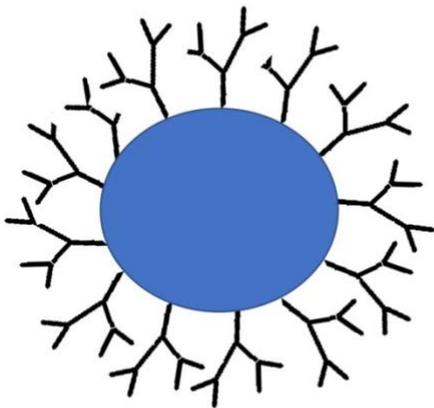


Fig.2. The principle of electron avalanches propagation from the metal cylinder.

When we take Bio-gram from a finger, different areas have different emission properties, and Bio-gram image have un-even surface (fig.3).

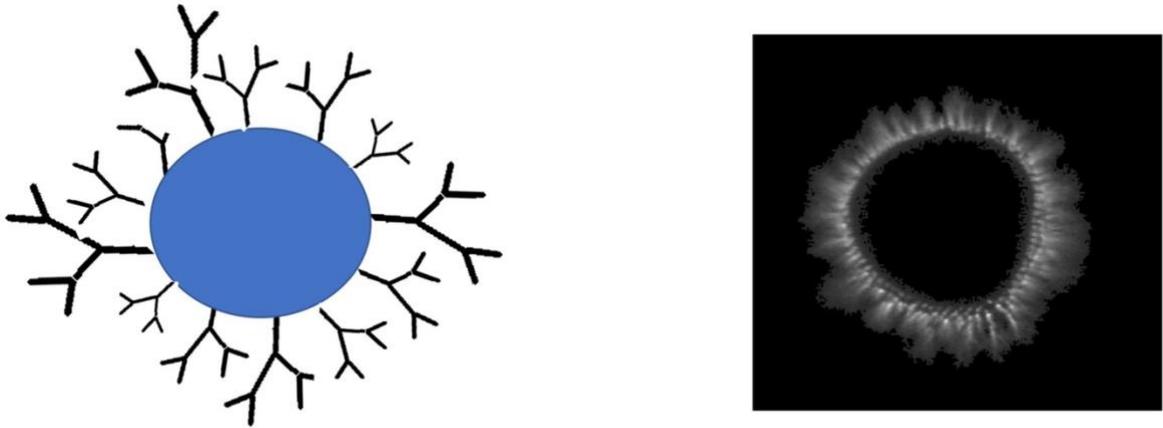


Fig.3. The principle of electron avalanches propagation from the finger.

Propagation of electron avalanches along the surface depends on the propagation coefficient. The speed of propagation is defined as follows:

$$V = c(E/P)^q$$

where  $v$  – the speed of propagation;  $c$  – surface coefficient;  $E$  – EMF power;  $P$  – gas pressure,  $q$  – gas coefficient.

For glass surface coefficient  $C$  for glass is 40 times less than for plastic, that is why on plastic surface (filter) with the same emission from the subject there are overlapping of the heads of electron avalanches, which reflects in more even glow area – in many cases it looks like from metal cylinder. The highest intensity of glow there are in the head of the electron avalanche, that is why with filter we have more intensive spectrum of light (fig.4).

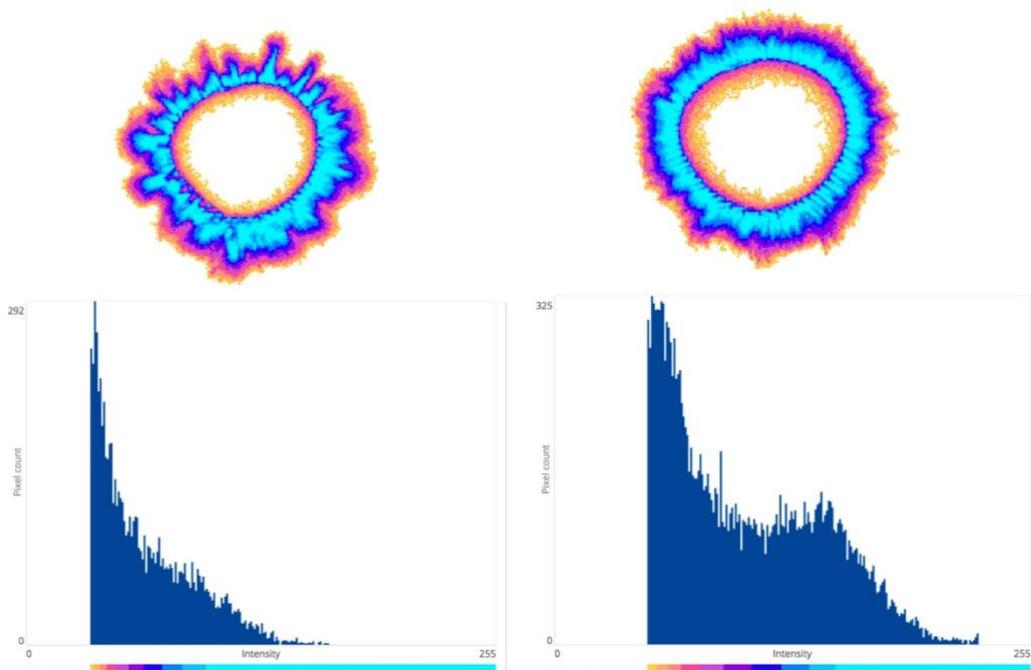


Fig.4. Comparison of images and spectral curves without and with filter.

Physical problems influence activity of acupuncture points, causing their blockage or formation of defects. In strong cases this would be reflected both without and with filter.

Emotional state influence autonomic nervous system, which is reflected by microcirculation. Without filter this influences the level of stress, with filter the variations of the image are hidden by overlapping of electron avalanches, so we do not see the influence of emotional state.

## **References**

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