

# Observations regarding the microclimate, the carbonic gas and aeroions in the halotherapy salon (INRRMFB, Bucharest), together with some quantum considerations about action of air ions

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Knowing the environmental characteristics of the halotherapy salon is essential for the evaluation of its therapeutic qualities.

Recent determinations (October 10, 2017) have shown that, the atmospheric pressure was the same both inside and outside the enclosure, but the other parameters showed differences.

Thus, the air temperature in the doctor's room was 18.8 °C, and inside the salon was slightly lower – 18.0 °C (outside air temperature was 15.3 °C).

The relative humidity of the air was within the comfort limits (50.8% was registered in the medical cabinet, 58.1% – in the halotherapy hall, while outside air humidity was 60.5%).

The dew point temperature ranged between 7.5 °C (outside) and 9.8 °C (salon), values that do not provide saturation conditions.

The air currents were below the detection limit of the anemometer.

The content of carbon gas in these relatively enclosed spaces were: the medical office – 553 ppm (closed space and two people), the salon for halotherapy – 401 ppm (outside – 445 ppm – area influenced by car traffic).

Air ionization is an aereoelectric parameter of therapeutic importance. The determinations showed sensitive differences between the points analyzed. Thus, 1600 positive ions/cm<sup>3</sup>, 810 negative ions/cm<sup>3</sup> (the unipolarity coefficient,  $k = 1,97$ ) were recorded in the medical office, in the halotherapy salon were 1790 positive ions/cm<sup>3</sup>, 850 negative ions/cm<sup>3</sup> ( $k = 2.10$ ), while outside values were: 640 positive ions/cm<sup>3</sup>, 220 negative ions/cm<sup>3</sup> ( $k = 2.90$ ).

With regard to the biomedical mechanisms of air ionization, they have to be reanalyzed based on quantum physics, because receiving or releasing of electrons determines energy fluctuations in atoms, molecules and cells, which can influence the structure, properties and certain functions important in the vital processes.