Effects of Electric Field inside the Human Beings Organs generated by High Frequency Electromagnetic waves

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***Abstract*— Numerous kinds of high frequency electromagnetic radiation are present in the environment. When the high-frequency electromagnetic waves (EMW) incident on human body, the magnetic and electric fields are induced inside the various organs of the human body. The intensity of the electric field varies in the various body parts of human beings. The intensity of the electric field is inversely proportional to the distance of the body from the transmission tower of the waves. The effects of nonionizing electromagnetic waves of frequencies 6.155, 7.55, 9.445, 9.69 and 9.87 MHz emitted from the transmission tower on various human organs are studied in this manuscript. The harmful range of the transmission towers and frequencies of radiations are found theoretically for the above-given frequencies. It is observed that when given EMWs penetrate 0.1 to 0.3 m.m. inside the human beings, it produce an electric fields about 66 to 67 V/m. The organs also absorbed energy due to the induced electric field. In some circumstances, the specific absorption rates (SAR) became higher to the safe limit declared by the International agencies like ICNIRP, INIRP and WHO, etc. The international safe limit of SAR is 0.08 W/kg for the tissues/cells of the organs of human beings. In this manuscript, the authors are recommended that transmission towers of high frequency radiation should be kept away from the cities, towns and villages.**

***Keywords— Electric fields, Radiation, Human Organs, Specific absorption rate, Change in temperature***