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ANALYSIS OF BRAIN ACTIVITY IN THE CASE OF MAGNETIC FIELD EXPOSURE

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Abstract

This paper presents some results of the brain electrical activity's analysis in case of the magnetic stimulation. It was recorded and analyzed the electroencephalography (EEG) signal during magnetotherapy procedures in abdominal region, considering this fact like as a possible exposure of subject at magnetic field. The recordings of EEG signals are performed on 13 healthy volunteers in three conditions (before, during and after magnetic stimulation), using three types of sinusoidal pulses. By means of the frequency domain representation (power spectral density - PSD) and a statistical processing there were distinguished some possible EEG signal modifications due to magnetic fields.

Key words: electroencephalography signal, magnetic field exposure, power spectrum density

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