

Application of time-frequency signal analysis to detect different stages of sleep

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Within the framework of this work, we studied frequency patterns calculated on the basis of the concept of continuous wavelet transformation in the electrical activity of the brain of the subjects during night sleep. A comparison of the detected frequency patterns in different frequency ranges with different sleep stages in the subjects was carried out. At the same time, the question of the possibility of using the concept of frequency patterns for the implementation of automatic marking of polysomnographic records at the sleep stage without the participation of a somnologist was considered.