

Alpha节律谱分裂现象的研究

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脑电图信号的功率谱分布是研究脑功能的一种重要手段。Alpha频段波峰的分裂是在少数健康人中观测到的一种现象。通过对皮层丘脑模型(corticothalamic model)的仿真计算,文中认为非均匀延时是产生alpha节律功率密度谱分裂的基础,而皮层与丘脑间的反馈连接的强度变化则是分裂现象只在少数人中观测到的重要原因。

A study of power density spectra of split-alpha rhythm

EEG (electroencephalogram) power spectra is an important tool studying the functions of brain. Splitting of the alpha spectral peak is a phenomenon observed in a small group of the healthy population. By a simulation study of the corticothalamic model, this paper supposed that the non-uniform time delay was the base of the alpha spectra peak split, and the variety of the cortico-thalamic feedback connection strength was the main reason that the splitting phenomena appeared only in a small group of the population.

关键词

alpha节律(Alpha rhythm); 功率密度谱(EEG spectra); 皮层丘脑模型(corticothalamic model)