Abstracts

Analeptic Effect of Microwave Irradiation on Experimental Animals (Correspondence)

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During the era of the Tri-Service Conferences, the use of X-band microwave radiation was recommended for the investigation of possible low power density "nonthermal" effects of microwave radiation on the central nervous system. The reasons for this recommendation were that 10 GHz is a widely used radar frequency, and exploratory investigations had shown that this frequency produced alterations in an animal's behavior, especially an analeptic effect; that is, the arousal of a sleeping or anesthetized animal and an increase in the alertness of an awake animal. For example, microwave irradiation to the heads of Nembutal-anesthetized animals aroused these animals from surgically-effective depths of anesthesia. The arousal response invited speculation that certain combinations of frequency, modulation, and power density could modify human performance adversely or favorably and even be of medical interest.

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