A technique for the quantitative characterization of the sleep-wake cycle in the rat

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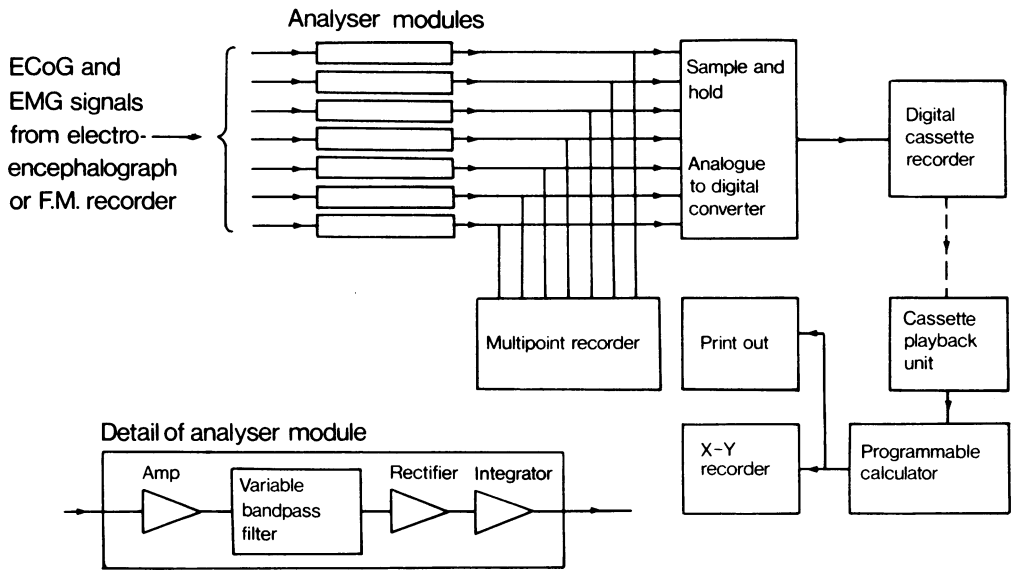
States of the sleep-wake cycle in the conscious, unrestrained rat with chronically implanted cortical and neck muscle electrodes (Etevenon & Boissier, 1971) were characterized quantitatively by correlating the frequency and amplitude content of the electrocorticogram with that of the electromyogram. This was achieved by analogue filtering, integration and division. Subsequent statistical analysis was performed by digital computation using a programmed calculator; the results were presented in numerical and graphical forms (Figure).

Reference

ETEVENON, P. & BOISSIER, J.R. (1971). Statistical amplitude analysis of the integrated electrocorticogram of unrestrained rats before and after prochlorpeniazine. *Neuropharmacology*, **10**, 161-173.



The sensitivity of motor units to neuromuscular blocking agents

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There are differences in the sensitivities of fast and slow twitch muscles to neuromuscular blocking agents (Paton & Zaimis, 1951). Within any one muscle there are motor units having a wide range of twitch speeds (Bessou, Emonet-Dénard & Laporte, 1963). For example in the fast muscle flexor digitorum longus of the cat some motor units have a twitch contraction time half that of the whole muscle, whilst at the other end of the range some motor units are almost as slow as a slow twitch muscle (e.g. Bagust, Knott, Lewis, Luck & Westerman, 1973).

It would be of interest to know if fast and slow