

Effect of temperature on resting potential in giant axons of squid [17]

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THE effect of temperature on the resting potential has been studied in a number of different preparations¹⁻³, and has attracted considerable theoretical interest. In the axons of the squid *Loligo forbesi*, the resting potential is essentially independent of temperature from 3°C to 20°C. Above this temperature, a decrease in resting potential has been observed, with a net fall of 10-15 mV at 35°C¹. In the lobster axon², however, the results indicate that the resting potential is increased by 8-10 mV when the temperature is raised from 2°C to 16°C. According to more recent data obtained in lobster axons³, the resting potential has a metabolic dependent component which, once eliminated by means of metabolic inhibitors, leaves the dependence of resting potential on temperature to be only the one expected if one assumes that the resting potential is a potassium ion electrode potential. © 1969 Nature Publishing Group.