Rapid dark recovery of the invertebrate early receptor potential

By hochstein
Created 9/1/2011
By hochstein September 1, 2011


Abstract:

The recovery in the dark of the early receptor potential, as a direct manifestation of the state of the visual pigments, has been studied by intracellular recording in the ventral photoreceptors of Limulus and lateral photoreceptors of Balanus. The recovery is exponential with 1/e time constants of about 80 ms at 24 degrees C for both preparations and 1800 ms at 4 degrees C for Balanus. The 24 degrees C rate extrapolates to total recovery of the pigment within 2 s. The later part of the dark adaptation of the late receptor potential, which may take from seconds to minutes in these preparations, appears thus to be unrelated to the state of the pigment.

Journal:
The Journal of General Physiology

Volume:
62

Pagination:
77?86

Date Published:
Jul

Notes:
{PMID:} 4713724
Our Int'l Ph.D. program provides outstanding students with top-notch courses in computational neuroscience.

read more

The Building

The Jerusalem Brain Sciences Building will provide a state-of-the-art research and teaching facility for the Edmond and Lily Safra Center for Brain Sciences.

read more

ELSC Media Channel

Get into our media channel and investigate ELSC's latest videos: seminars, public lectures, courses and video articles.

read more

Source URL: https://elsc.huji.ac.il/hochstein/publications/rapid-dark-recovery-invertebrate-early-receptor-potential