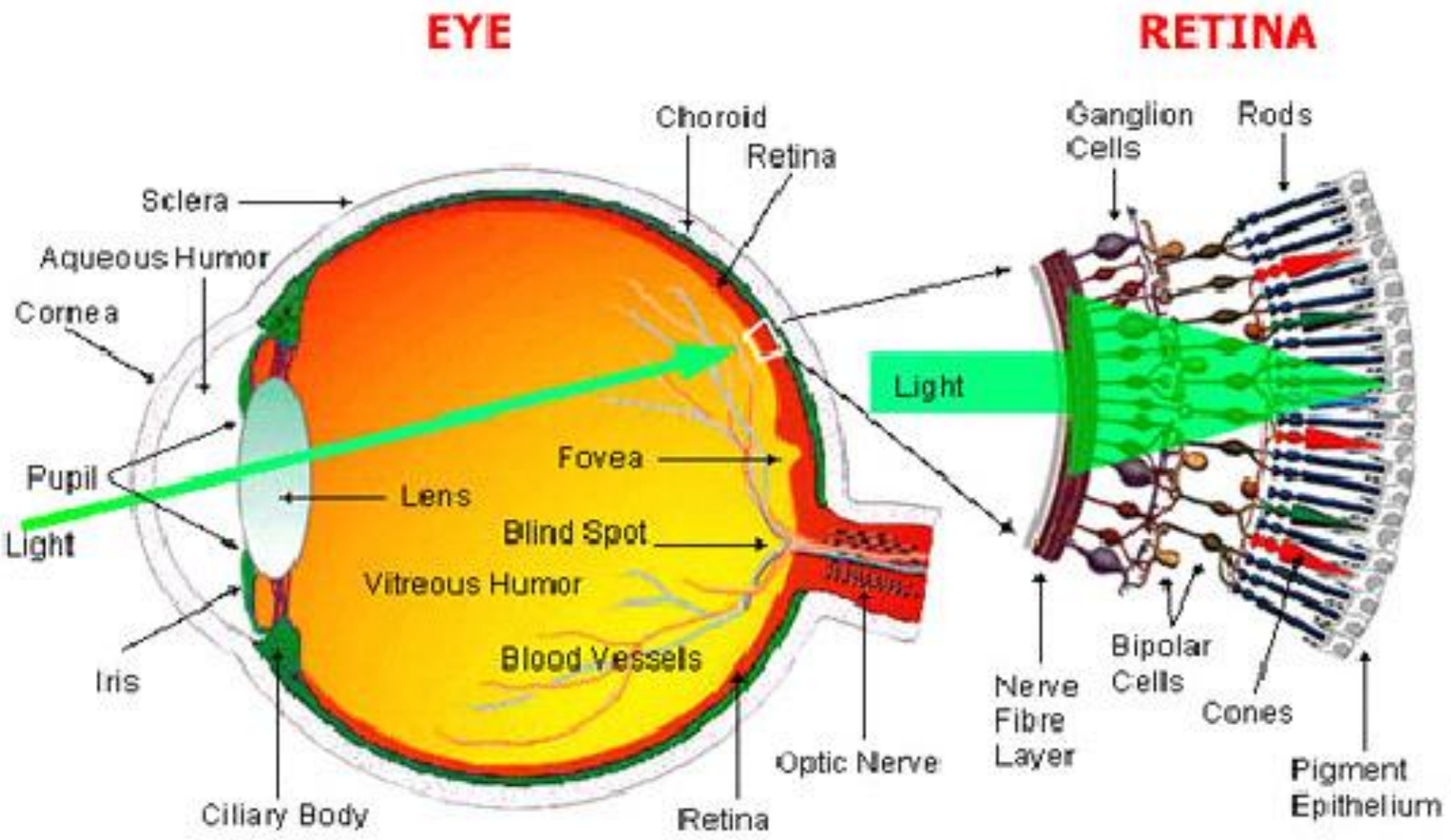
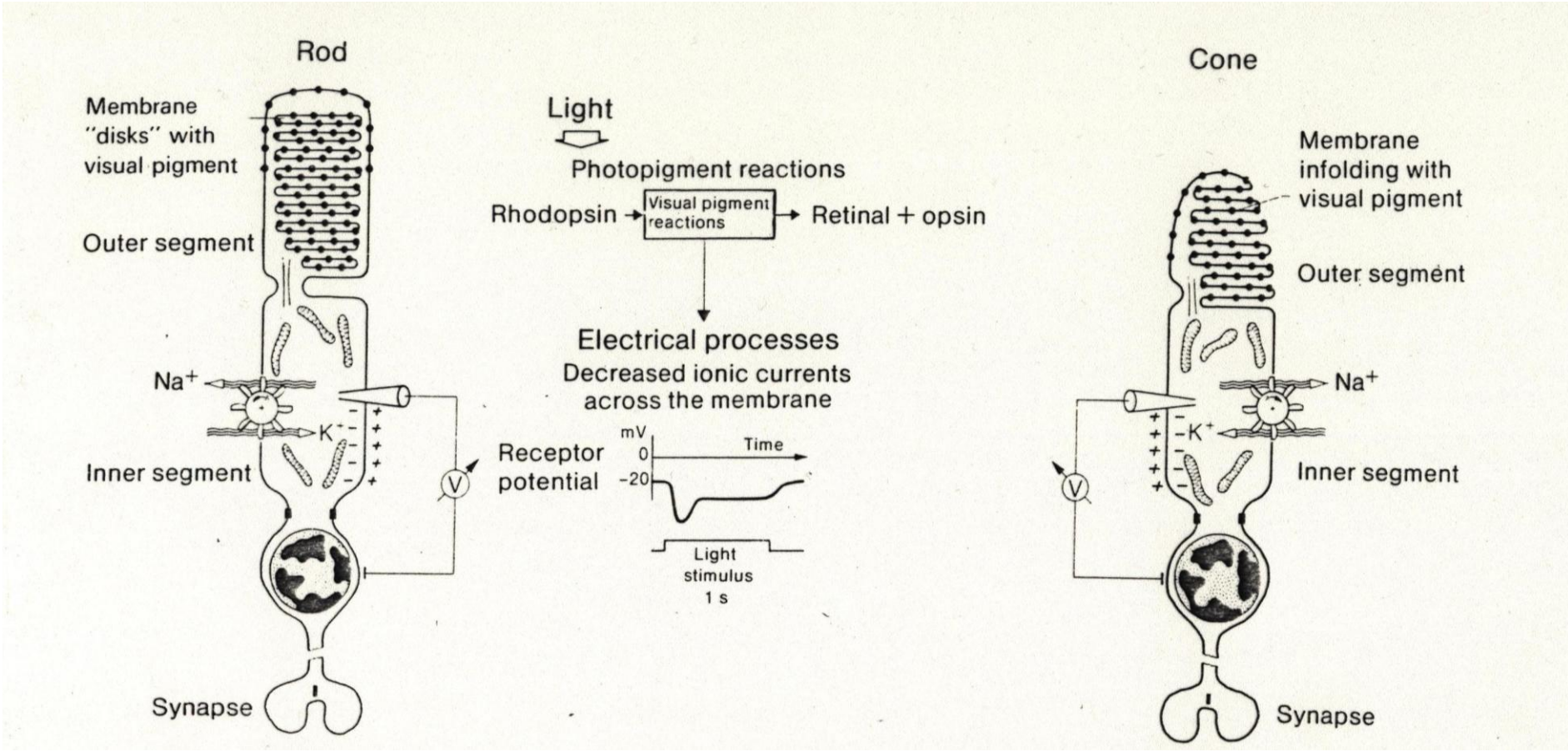
Zrakové receptory, rodopsín

Július Cirák

Zloženie ľudského oka



Zloženie zrakových buniek, tyčinky a čapíky



Prúdová odozva na svetelné stimuly pri rôznej intenzite svetla

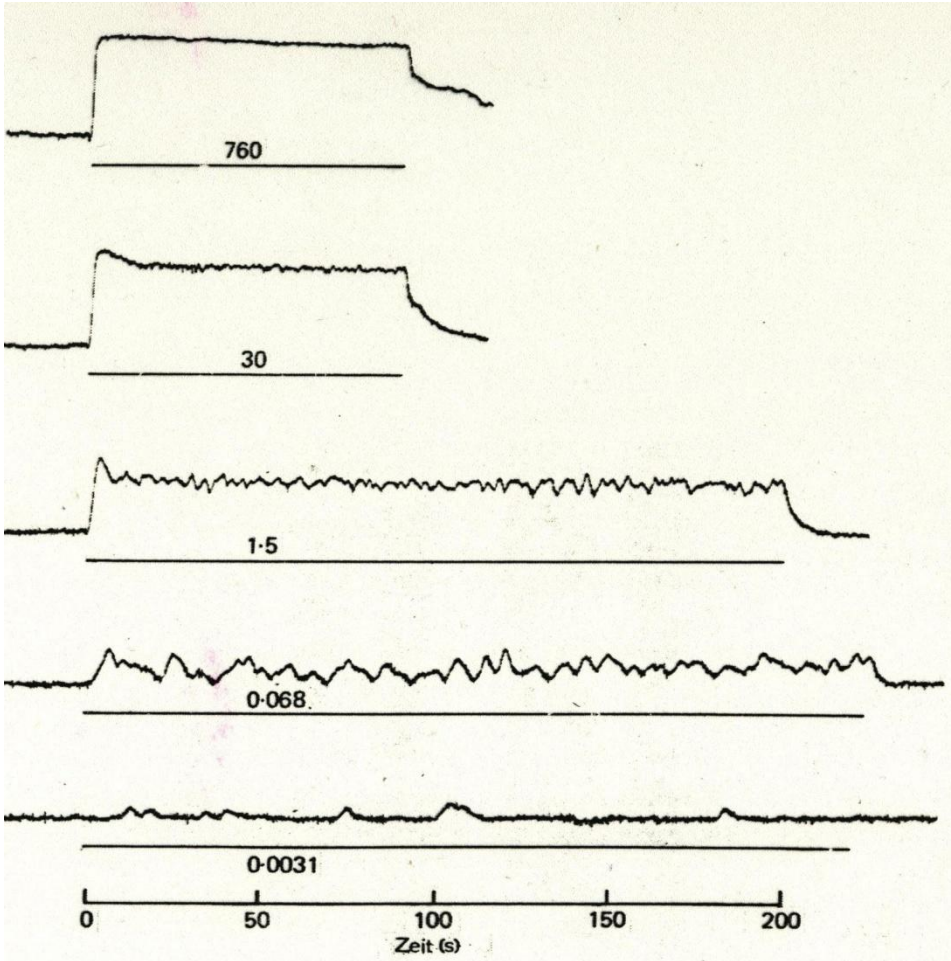
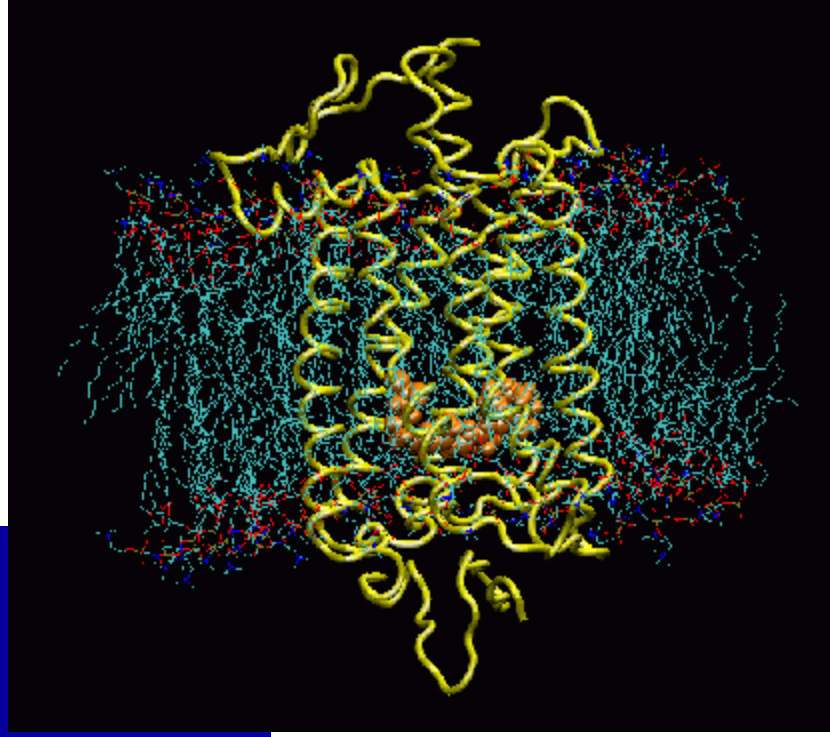
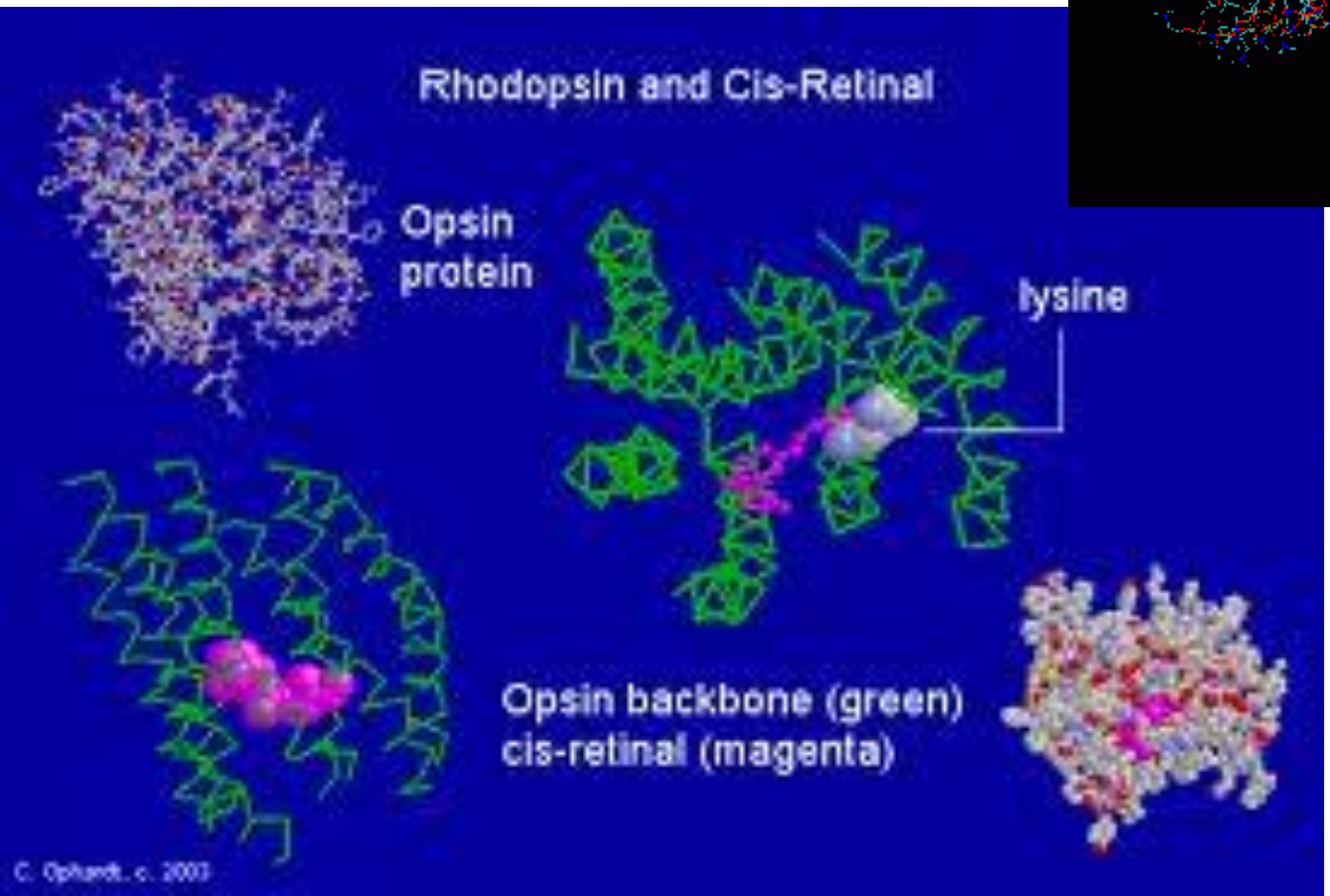
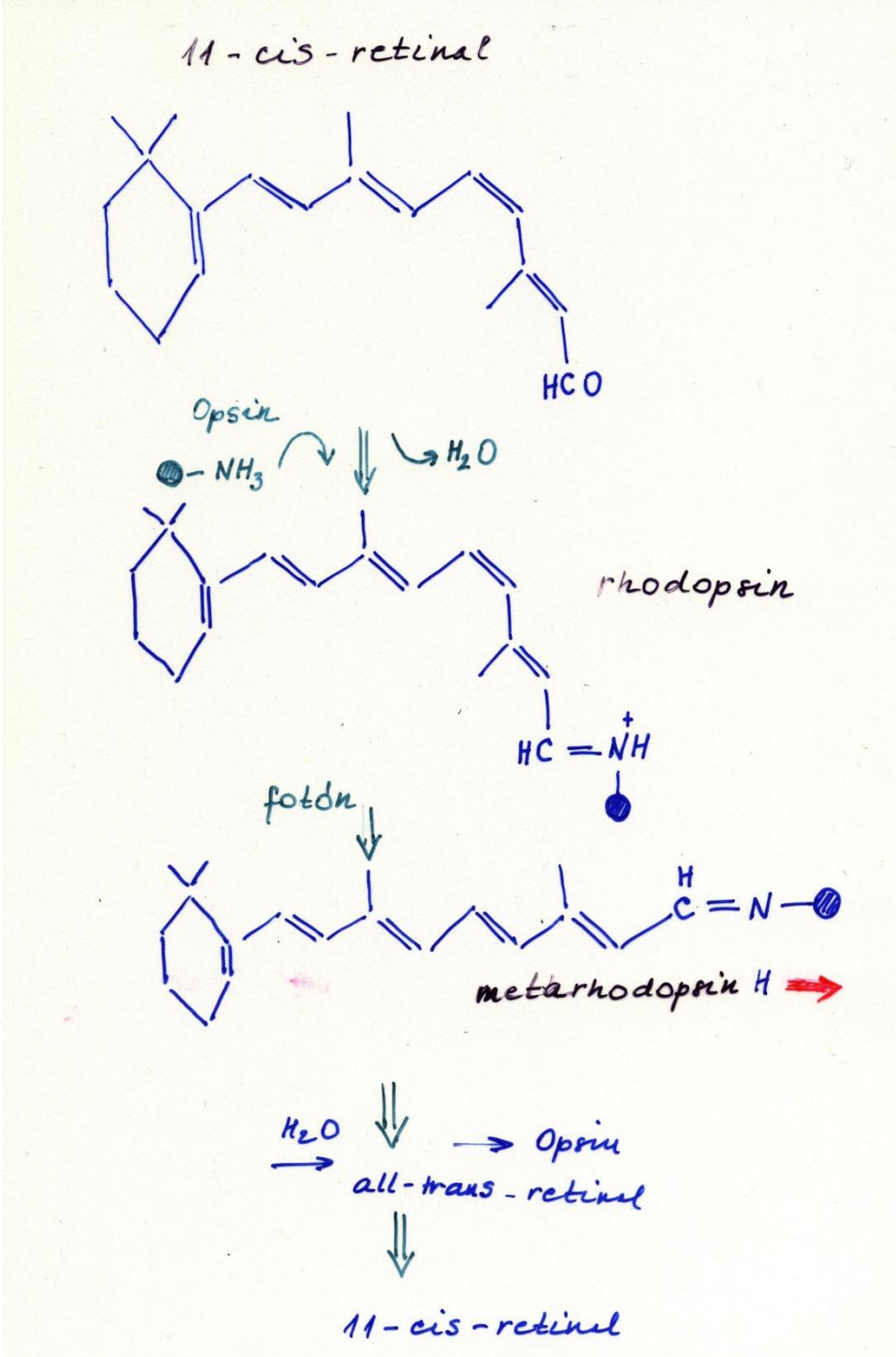


Fig. 15.110. Response of a vertebrate (toad) rod to light stimuli of varying intensity. Measured extracellularly with a suction electrode, into which the rod outer segment of the still intact cell is sucked. The ordinate gives the reduction of the membrane current from the dark current value. The lines under the curves give the duration of the illumination, and the accompanying numbers give the intensity of the light signal in units of photons $\mu m^{-2} s^{-1}$ at 500 nm. For very low intensities single "antibumps" are seen which overlap for higher intensities to form a smooth wave form. [From Baylor, D. A., Lamb, T. D., and Yau, K. W., J. Physiol. **288**, 613–634 (1979)]

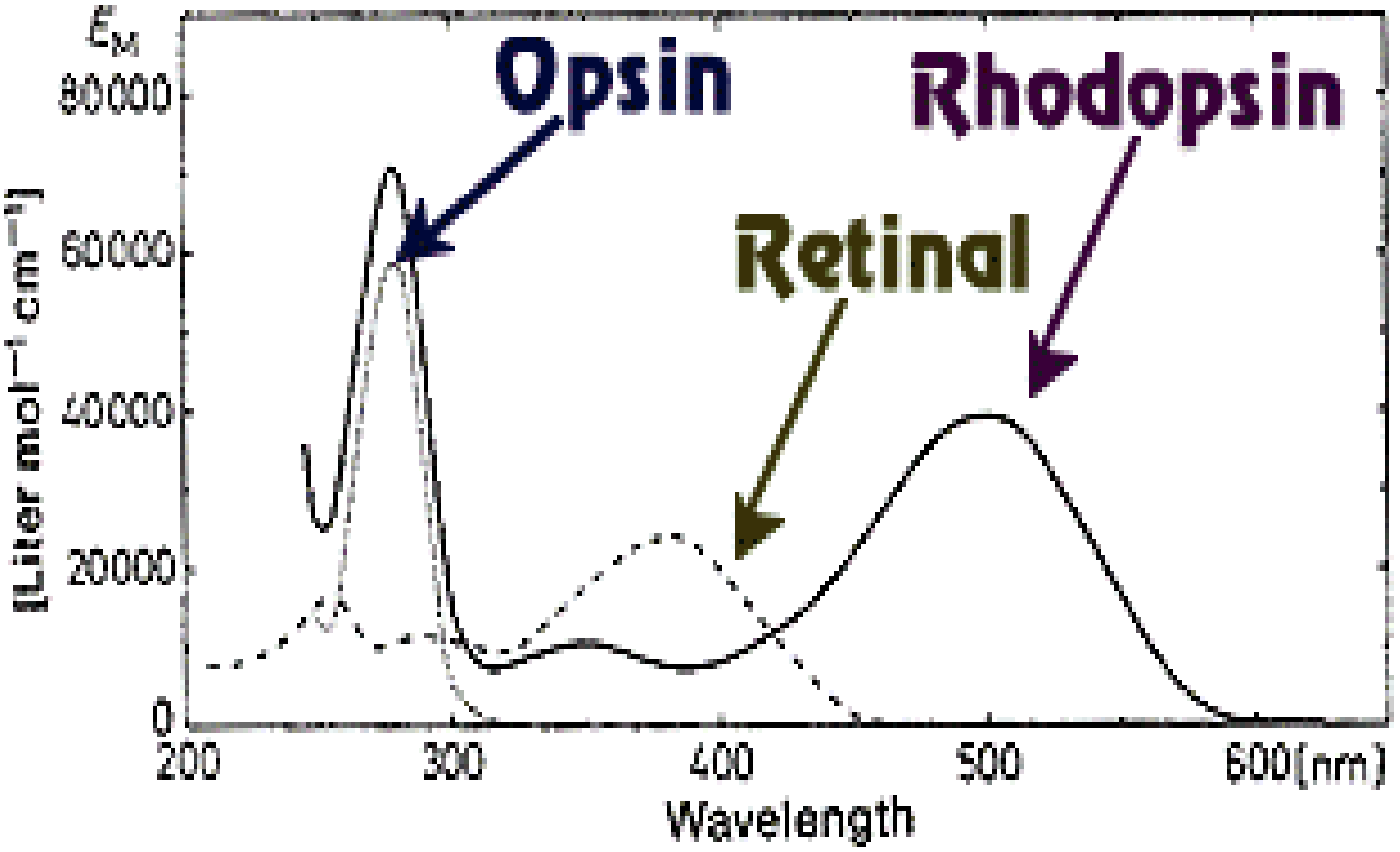



Rhodopsin and Cis-Retinal
Opsin protein
lysine
Opsin backbone (green)
cis-retinal (magenta)
C. Ophardt, c. 2003

Jednotlivé fázy v zmenách rodopsinu



Absorpčné spektrum molekuly rodopsínu



Absorpčné pásy zrakových pigmentov