

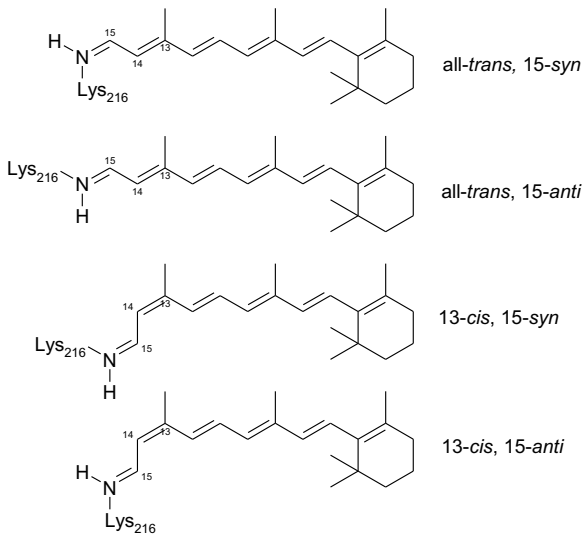
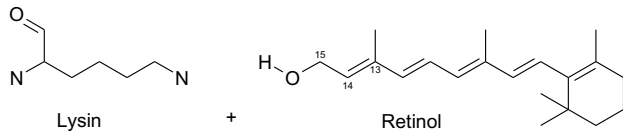
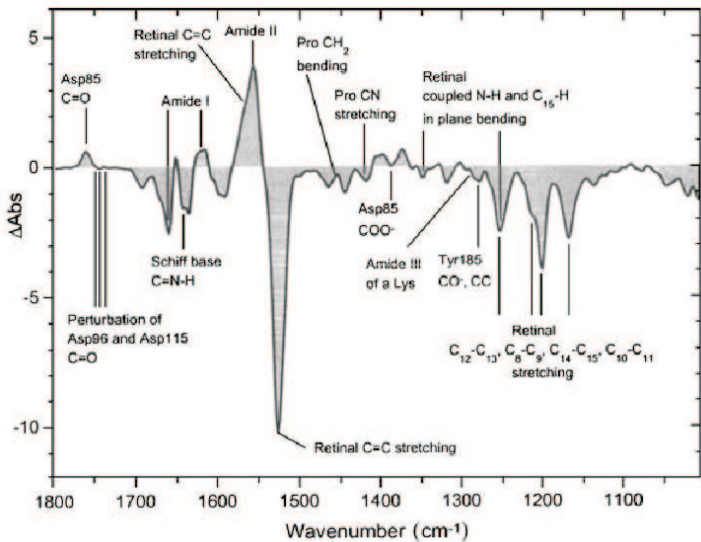
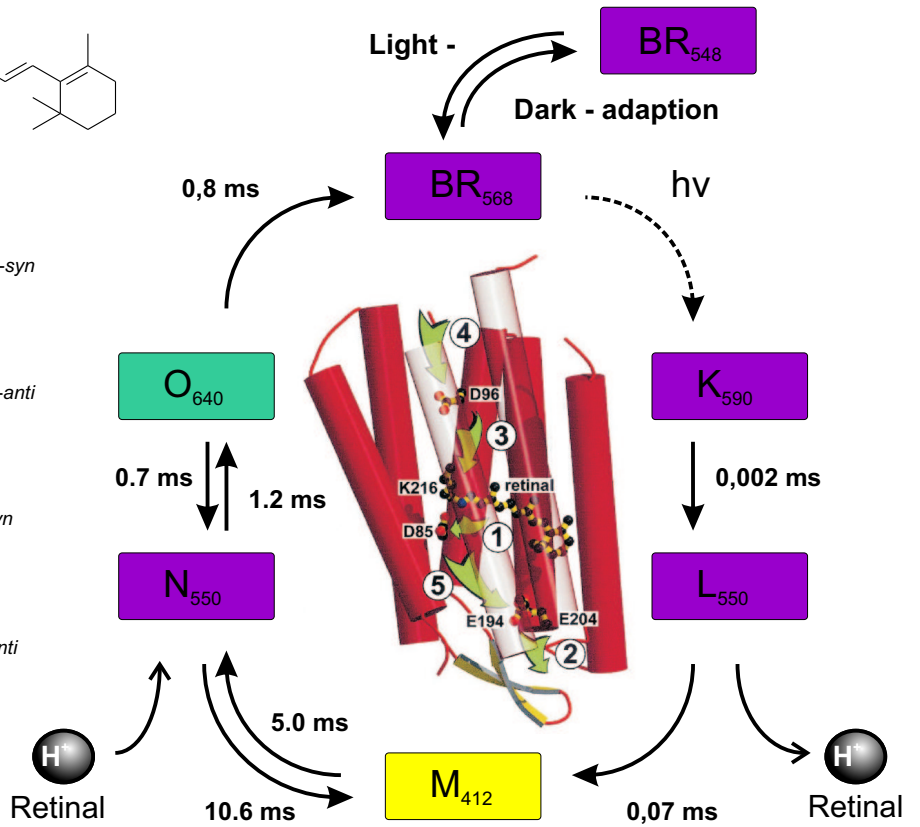


Proton-hopping	Retinal	Cytoplasm	Asp 96	Schiffsche-Base	Asp 85	H ₂ O Netz (extrazellulär)	Extra-zellulär
	1186		1742	1186	1758		
BR ₅₆₈ -Grundzustand	All-trans (15-anti)		H ⁺	H ⁺		H ⁺	
K ₅₉₀ L ₅₅₀	13-cis (15-anti)		H ⁺	H ⁺		H ⁺	
M ₄₁₂	13-cis (15-anti)		H ⁺	①	H ⁺	②	
N ₅₅₀	13-cis (15-anti)		③	H ⁺	H ⁺		
O ₆₄₀	all-trans (15-anti)	④	H ⁺	H ⁺	H ⁺		
BR ₅₆₈ -Grundzustand	all-trans (15-anti)		H ⁺	H ⁺	⑤	H ⁺	



The dark adapted state is a mixture of the 13-cis 15-syn and all-trans 15-anti form.



Light-induced IR difference spectrum between the photointermediate M and that of the unphotolysed state of bacteriorhodopsin (BR). Positive bands correspond to the M state and negative bands to the ground state. Time-resolved spectra recorded between 0.3 and 0.4 ms at 20 °C and pH 8.4 using the ATR technique. The lower graph shows the time evolution at 1186 cm⁻¹ on a stepscan measurement starting a 30ns at 10 °C and pH 7.

