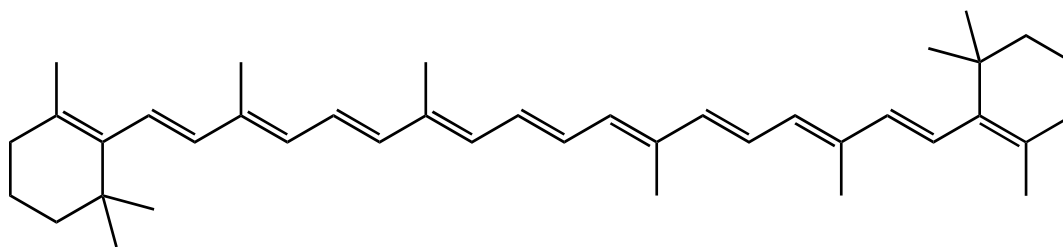
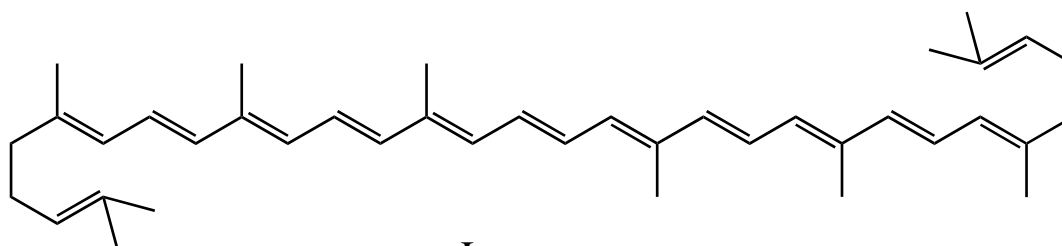


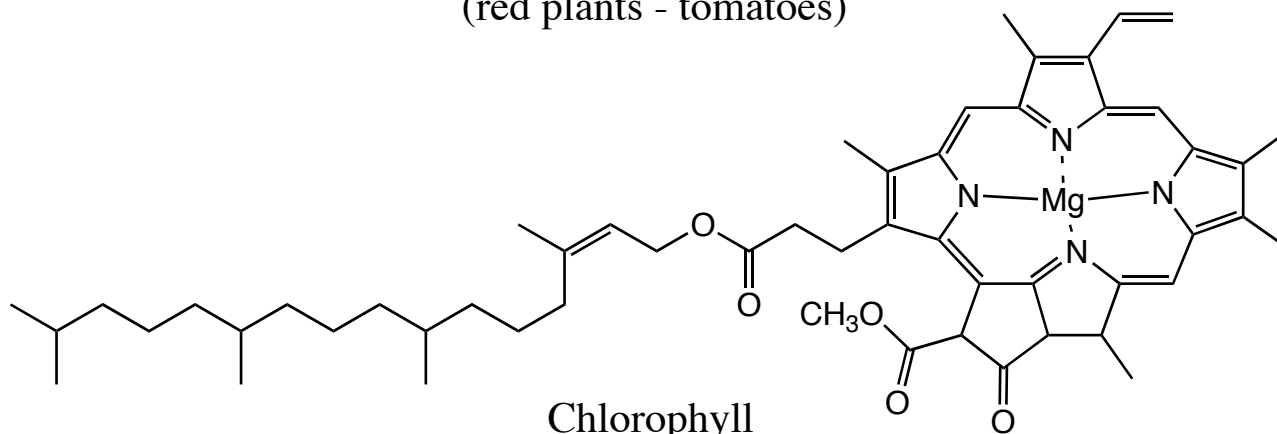
Color Chemistry: Electronic Transitions



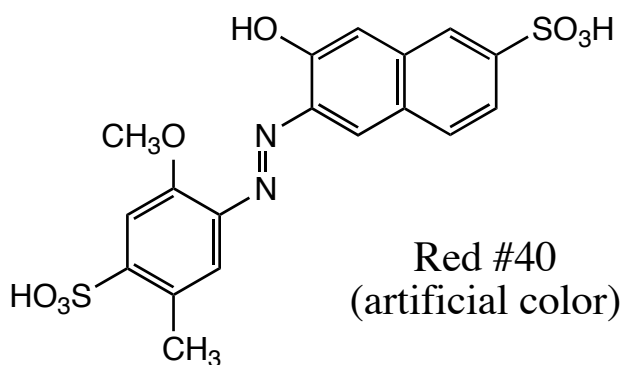
β -Carotene
(orange plants - carrots)
 $\pi \rightarrow \pi^*$ 454 nm (blue light absorbed)
See Wade Chapter 15-13



Lycopene
(red plants - tomatoes)



Chlorophyll
(green plants)



Red #40
(artificial color)