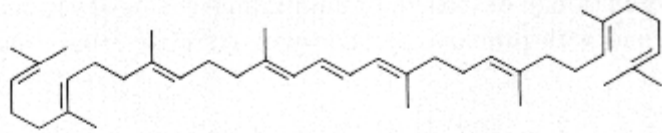
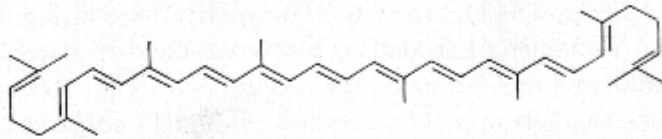


## Karotenoidy

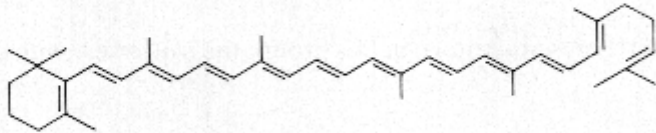
*phytoene* (C<sub>40</sub>H<sub>64</sub>; colorless;  $\lambda_{\max}$ , 285 nm)



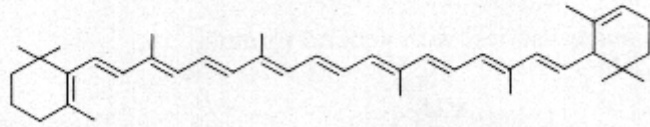
*lycopene* (C<sub>40</sub>H<sub>56</sub>; red;  $\lambda_{\max}$ , 476 nm)



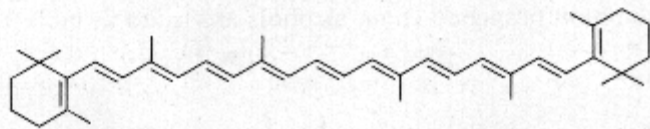
$\gamma$ -*carotene* (C<sub>40</sub>H<sub>56</sub>; orange;  $\lambda_{\max}$ , 460 nm)

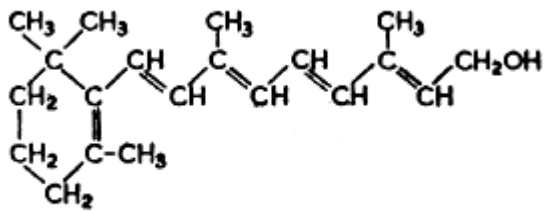
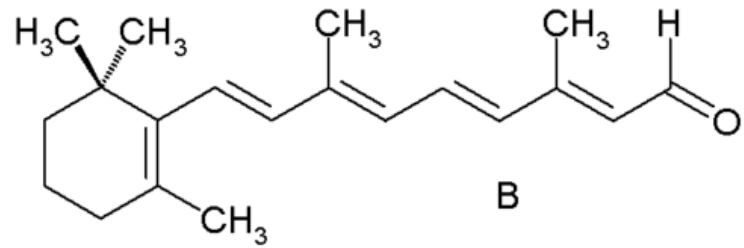
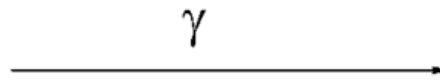
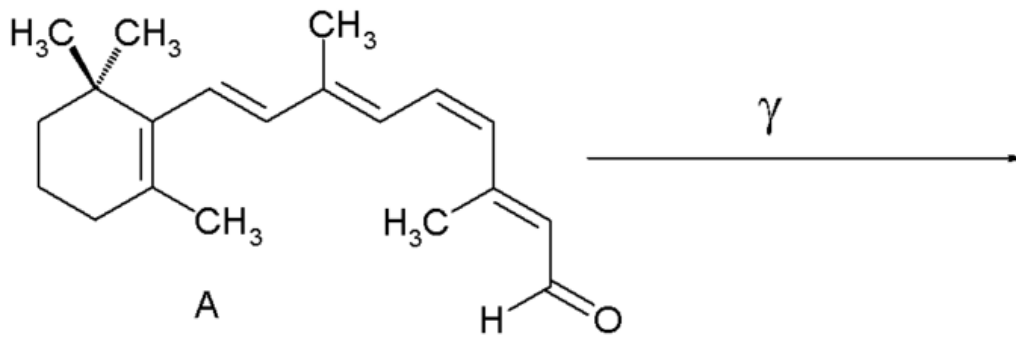


$\alpha$ -*carotene* (C<sub>40</sub>H<sub>56</sub>; orange;  $\lambda_{\max}$ , 456 nm)

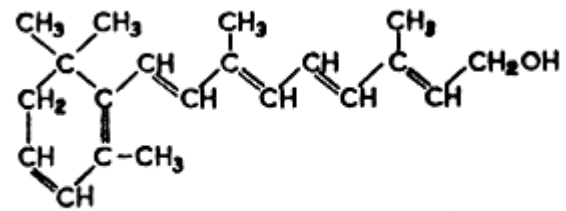


$\beta$ -*carotene* (C<sub>40</sub>H<sub>56</sub>; orange;  $\lambda_{\max}$ , 463 nm)

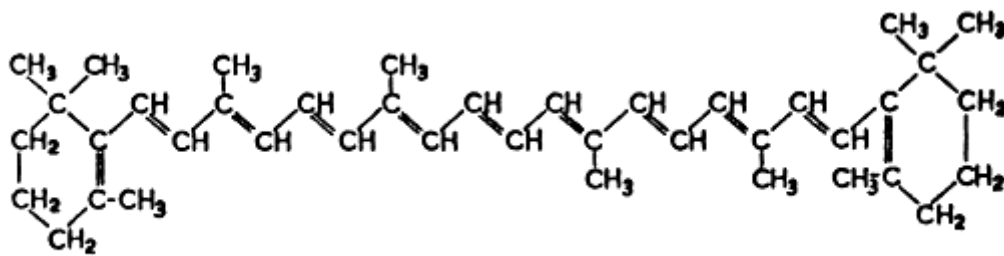




retinol



3-dehydroretinol



$\beta$ -carotene