ECOTOXICOLOGIA

AULA PRÁTICA 6

Planeamento das Aulas

Aula 1 (02.03) – Início dos testes de ecotoxicologia

Aula 2 (09.03) – Efeitos do bezafibrato na germinação dos organismos teste (taxas de inibição e constantes de inibição IC50)

Aula 3 (16.03) – Marcadores biofísicos de toxicidade I

Aula 4 (23.03) – Marcadores biofísicos de toxicidade II

Aula 5 (06.04) – Análise Estatística Multivariada e Índices Fotoquímicos (Teórico-Prática)

Aula 5 (13.04) - Marcadores bioquímicos de toxicidade I – Pigmentos vegetais

Aula 6 (20.04) – Marcadores bioquímicos de toxicidade II – Pigmentos Vegetais II

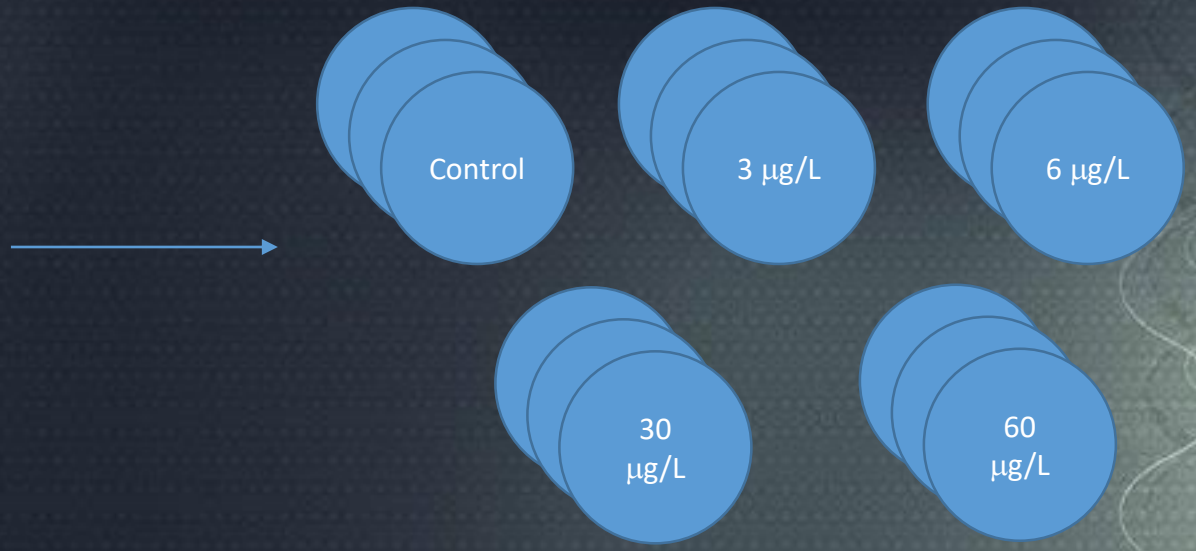
Aula 7 (27.04) - Marcadores bioquímicos de toxicidade III – Dano Membranar

Aula 8 (04.05) – Marcadores bioquímicos de toxicidade IV

Aula 9 (11.05) - Técnicas de extração e análise de metais pesados

Aula 10 (18.05) - Nanotoxicologia

DELINEAMENTO EXPERIMENTAL



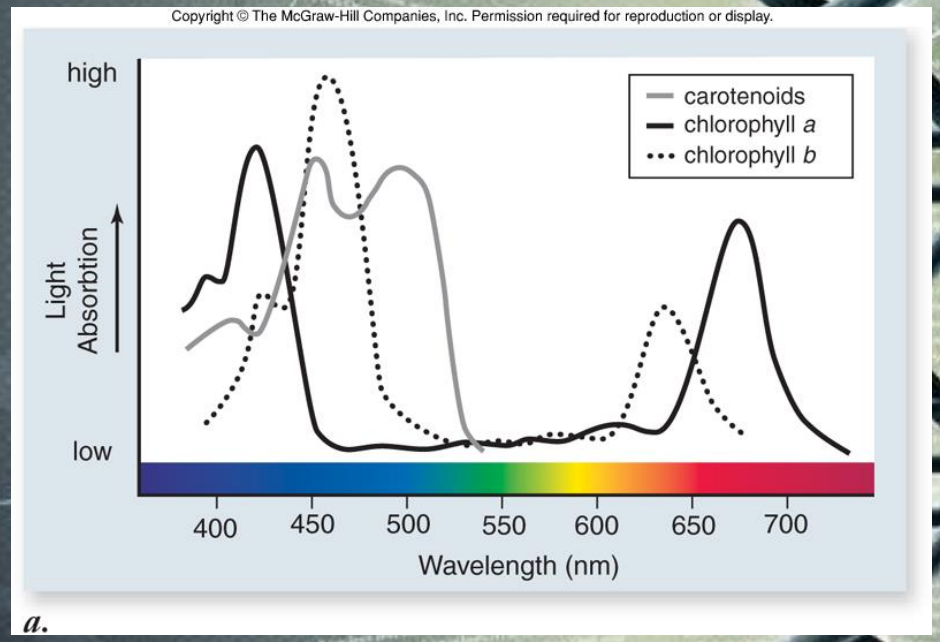
PLANT PIGMENTS

PIGMENTS ARE LIGHT-ABSORBING COLORED MOLECULES.

DIFFERENT PIGMENTS ABSORB DIFFERENT WAVELENGTHS OF LIGHT.

CHLOROPHYLLS ARE THE MAJOR LIGHT-ABSORBING PIGMENTS IN PLANTS.

THEY ABSORB ENERGY FROM VIOLET-BLUE LIGHT AND REFLECT GREEN LIGHT, GIVING PLANTS THEIR GREEN COLOR.



ACCESSORY PLANT PIGMENTS

ROLE OF ACCESSORY PIGMENTS:

ACCESSORY PIGMENTS HELP PLANTS ABSORB ADDITIONAL LIGHT. PLANTS NEED TO MAKE THESE ACCESSORY PIGMENTS TO MAXIMIZE THE AMOUNT OF PHOTOSYNTHESIS THEY CAN DO.

MORE PIGMENTS = MORE GLUCOSE OR FOOD FOR THE PLANT!

ACCESSORY PLANT PIGMENTS

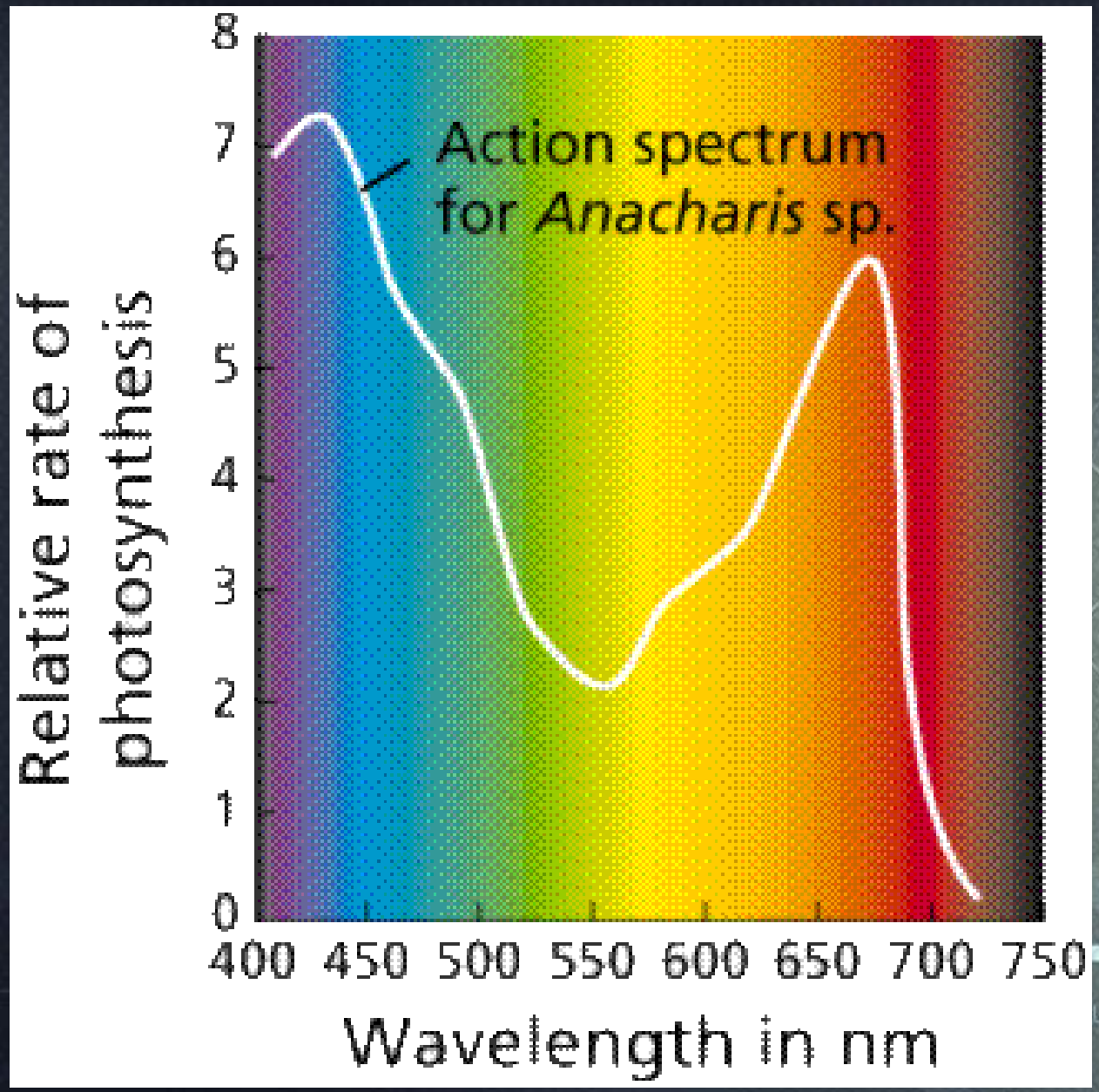
CAROTENOIDS: REFLECT YELLOW, ORANGE, AND RED LIGHT.

CAROTENOIDS GIVE CARROTS AND SWEET POTATOES THEIR ORANGE COLOR.

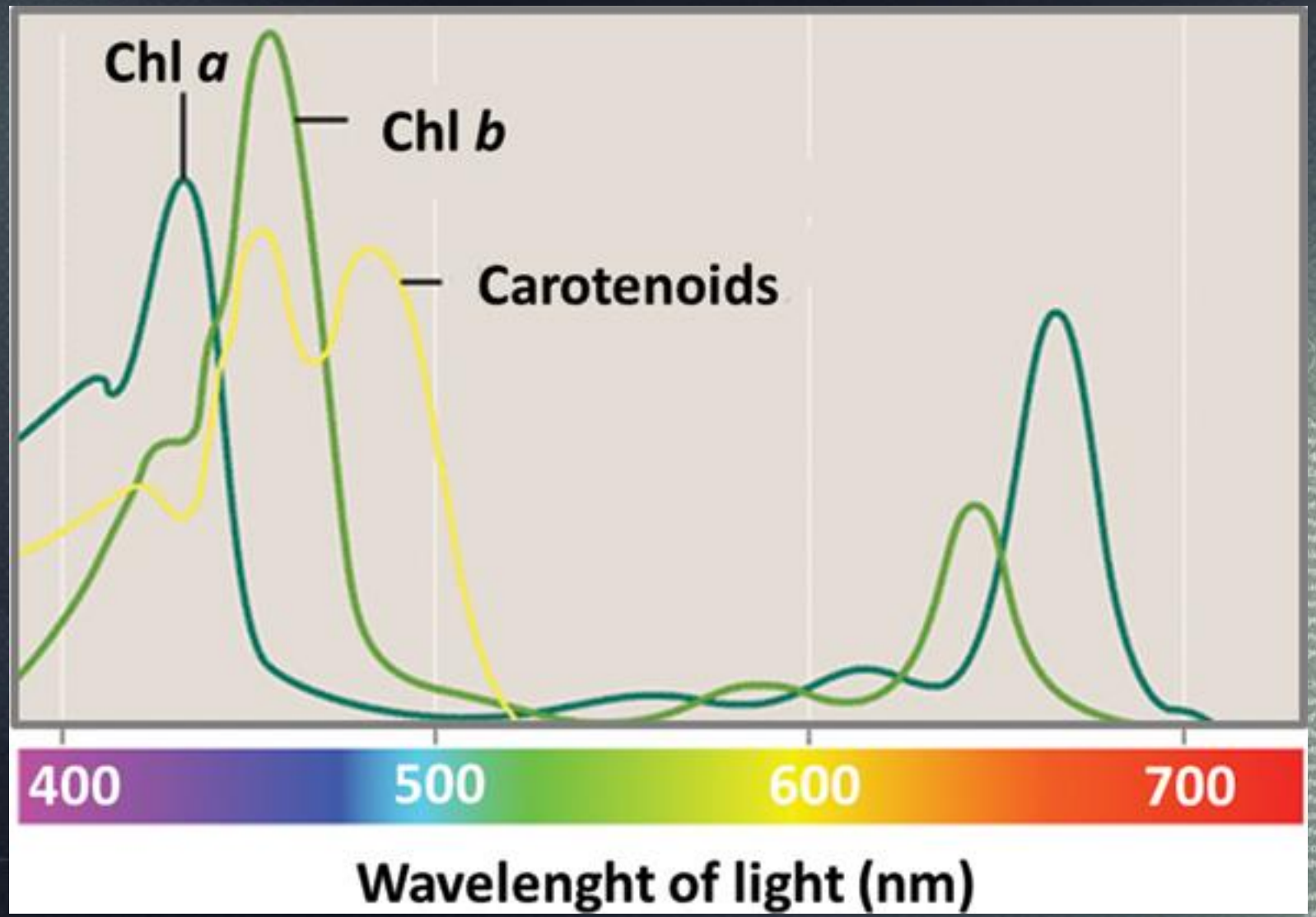
ANTHOCYANS: REFLECT RED, BLUE, VIOLET LIGHT.

XANTHOPHYLLS: REFLECT YELLOW LIGHT.

PLANT PIGMENTS



PLANT PIGMENTS



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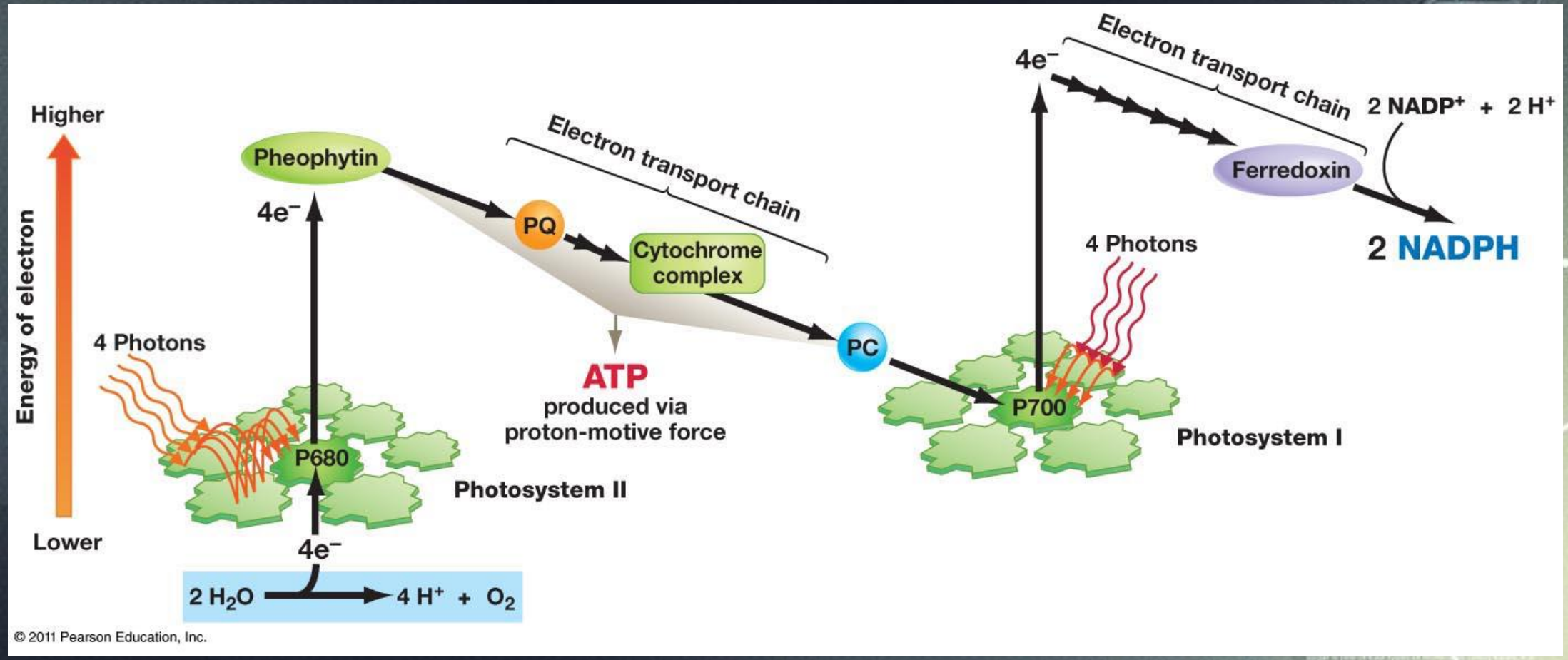

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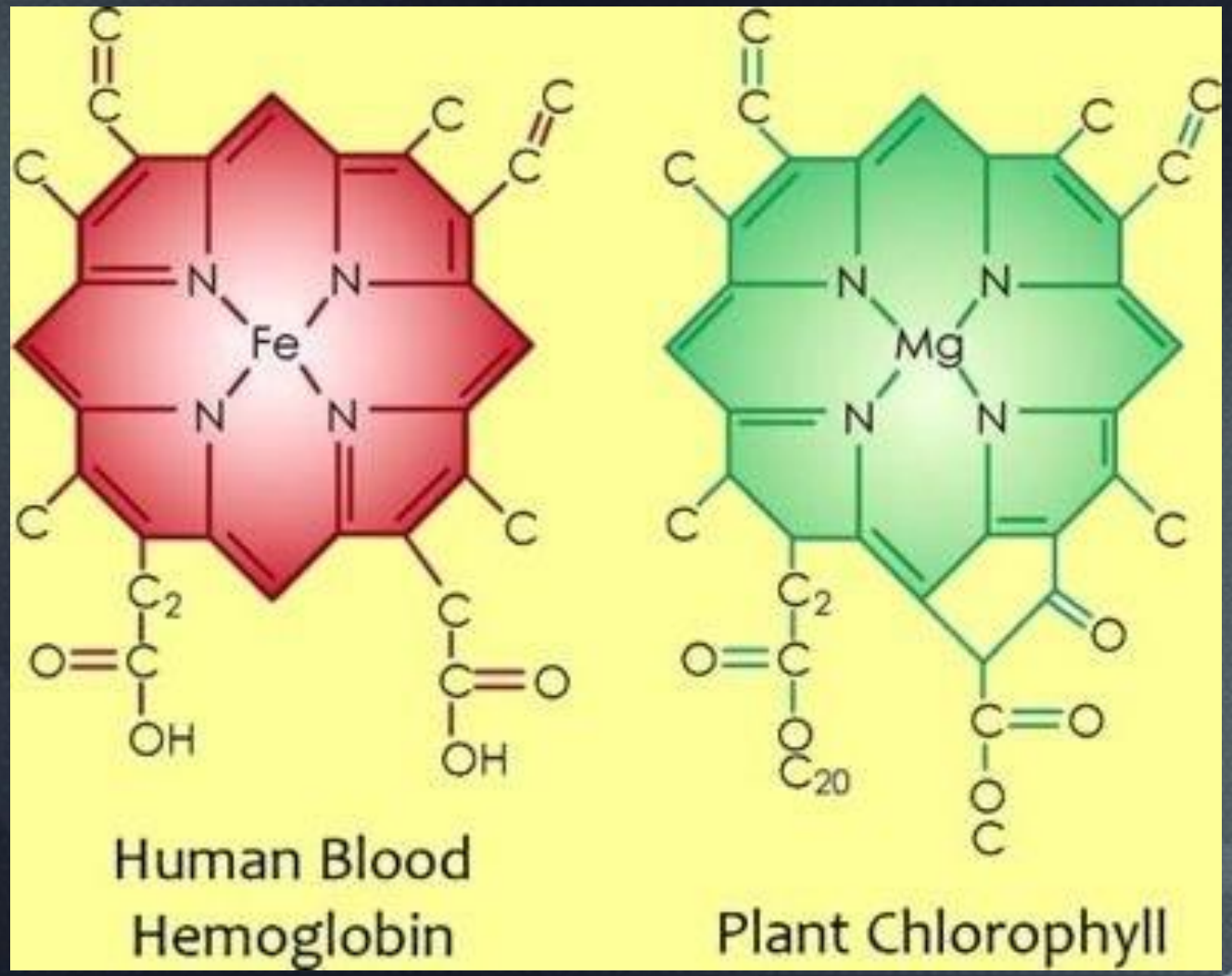

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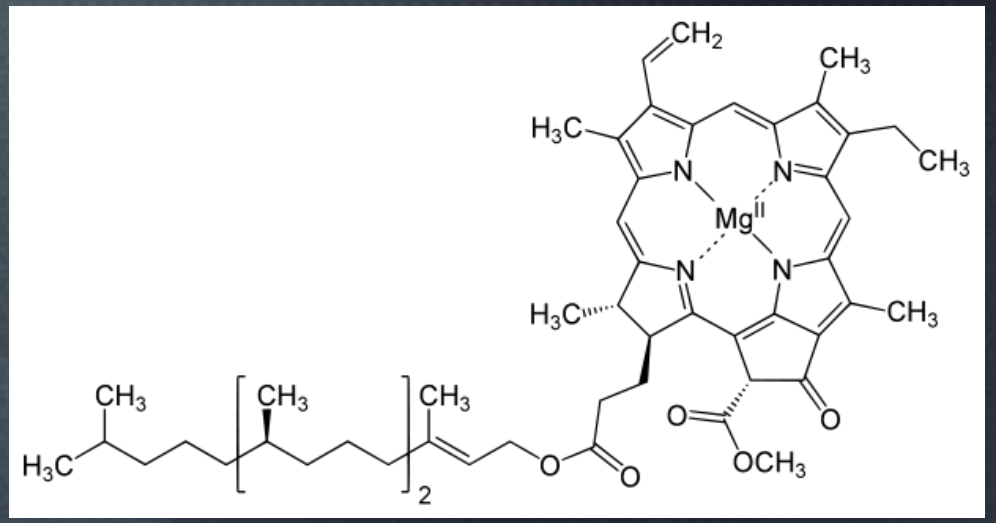
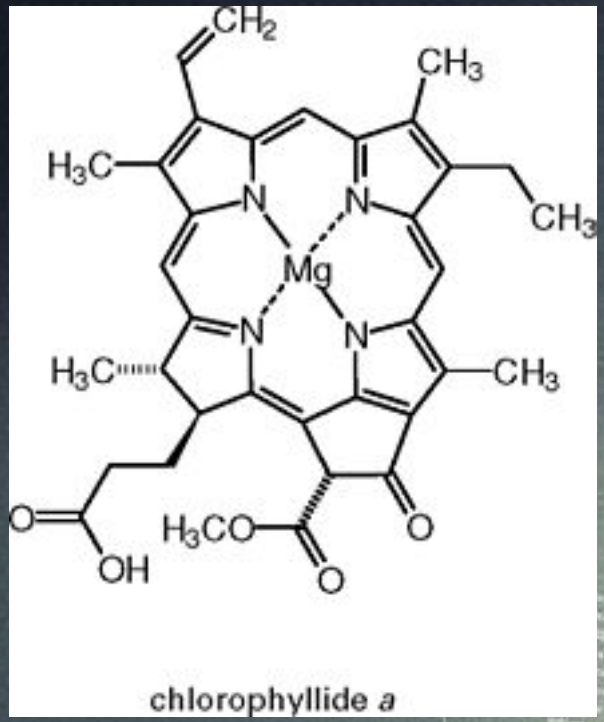
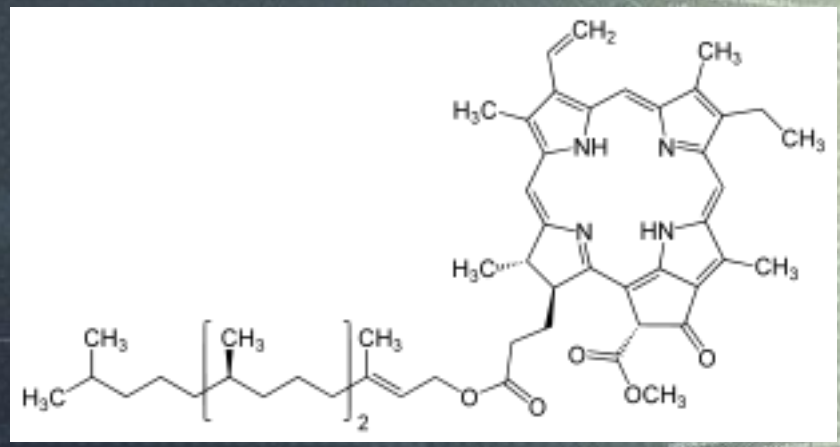




chlorophyllide *a*



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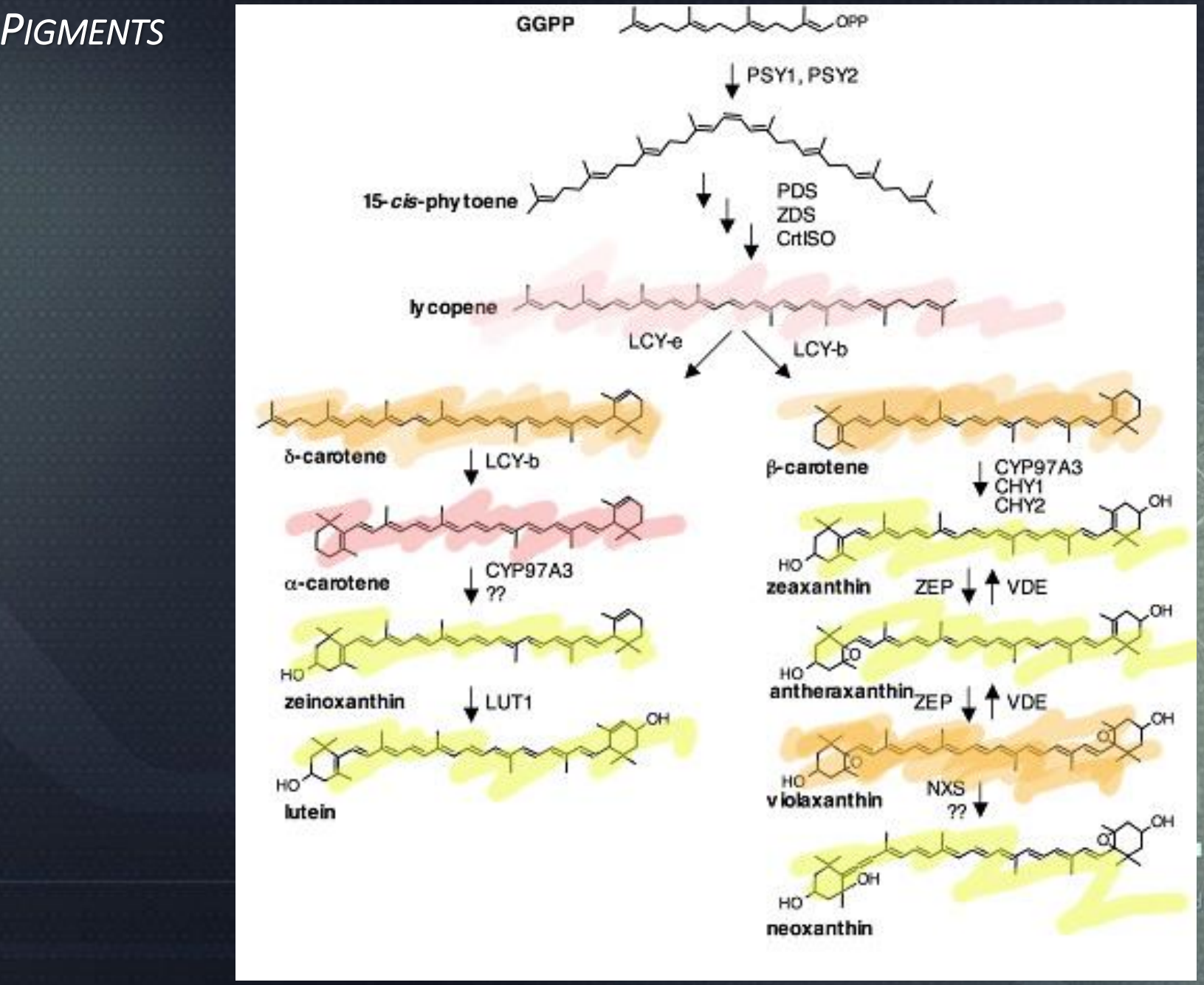

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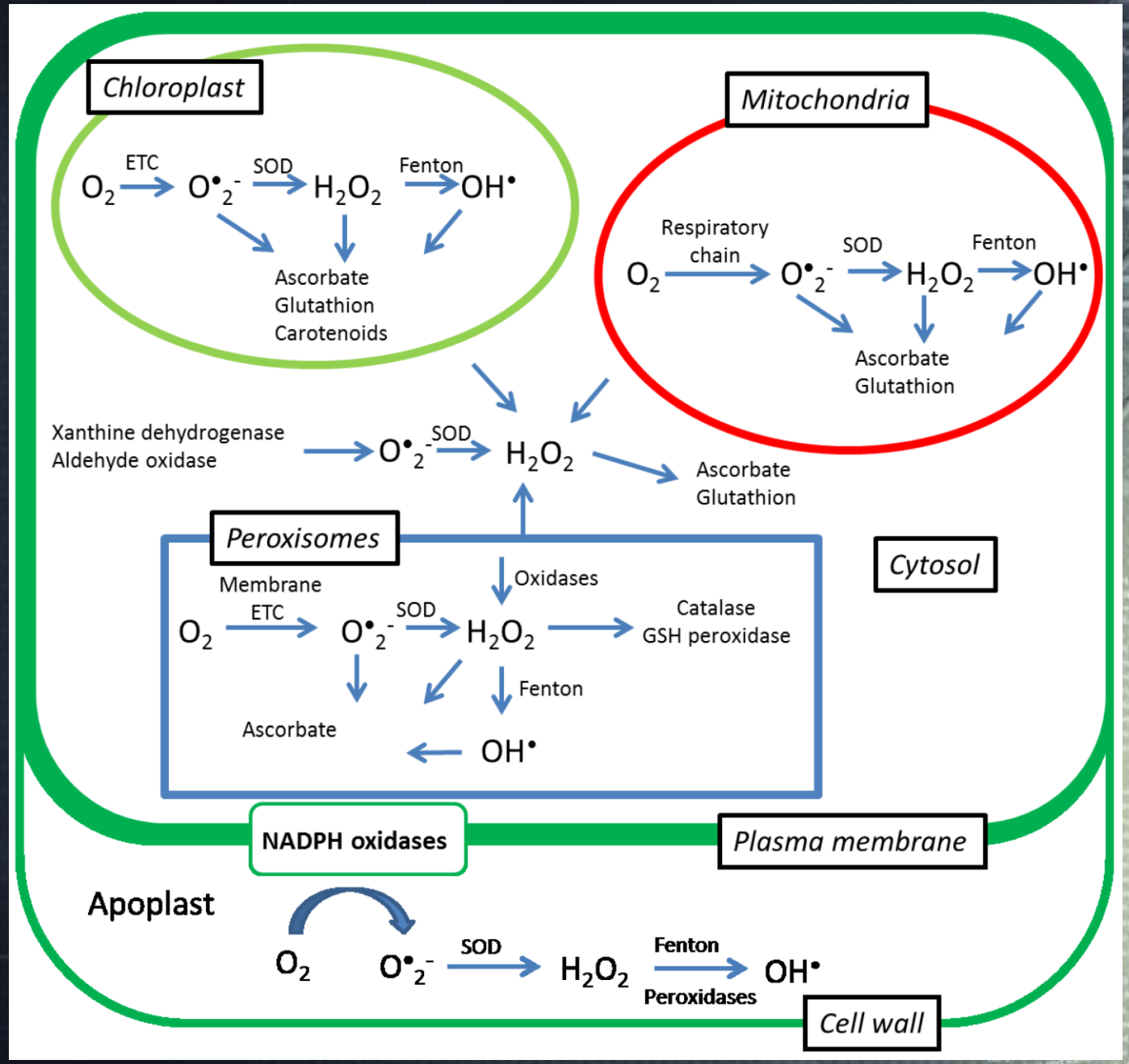

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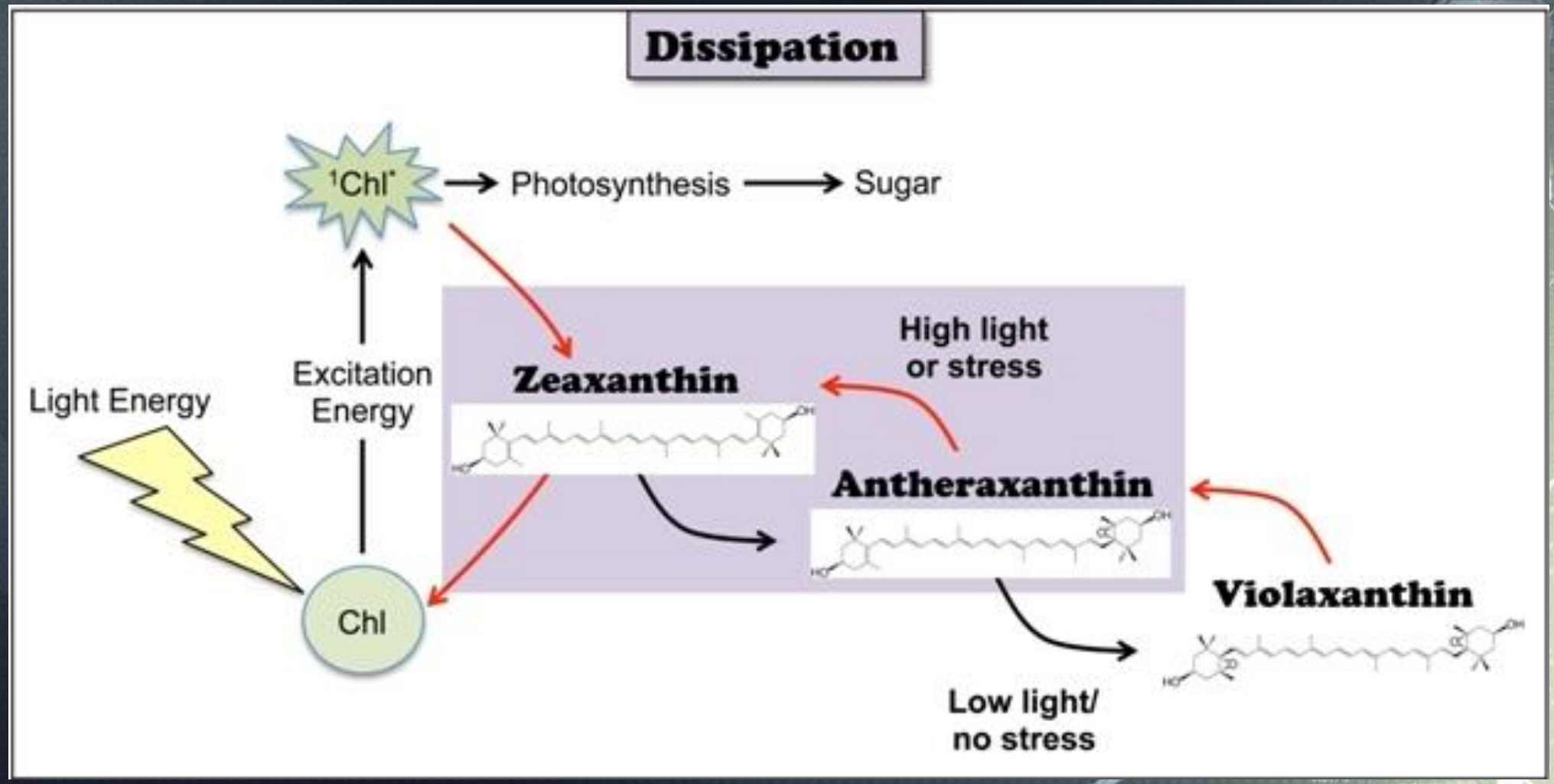

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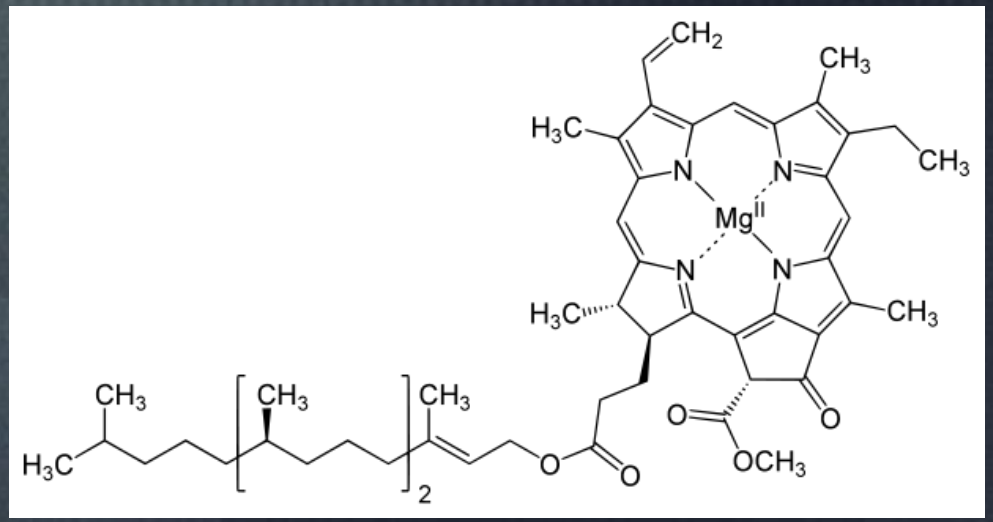

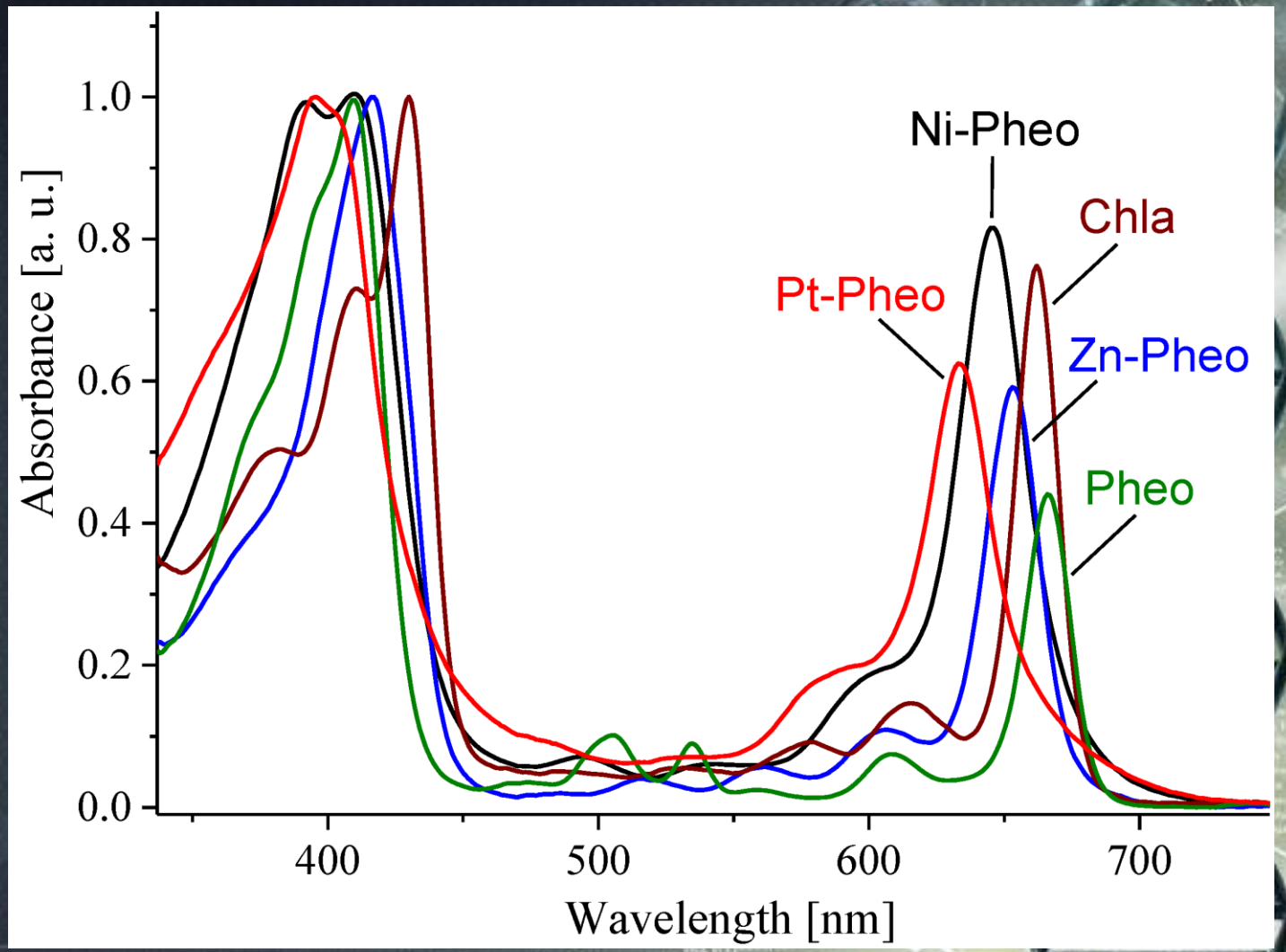

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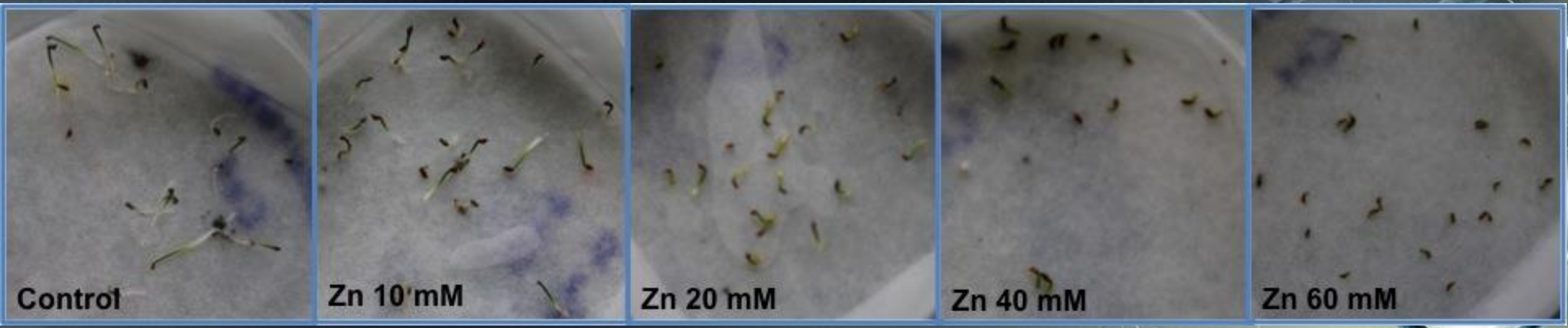

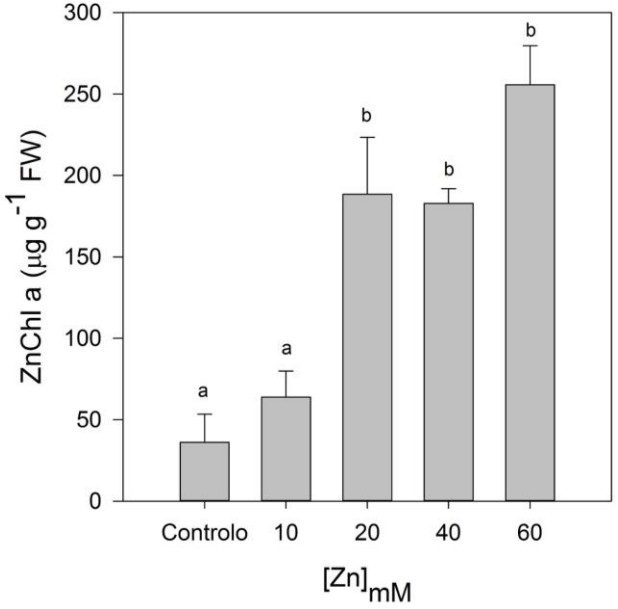

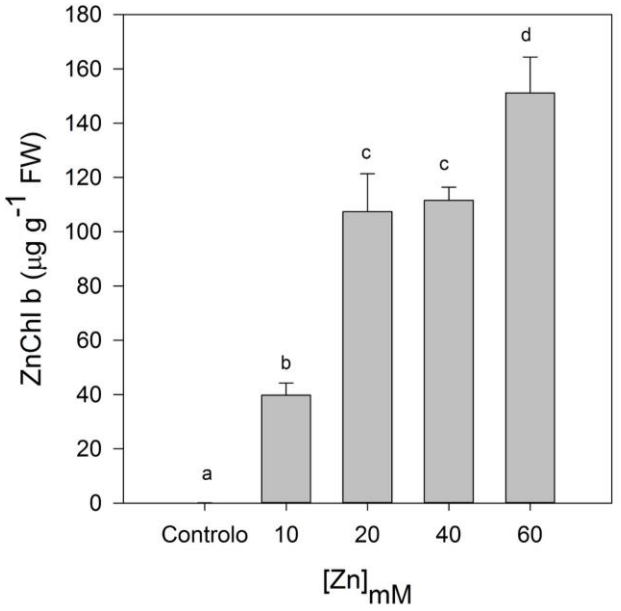

PLANT PIGMENTS

1. WEIGHT THE SAMPLES QUICKLY.
2. ALL THE EXTRACTION SHOULD OCCUR IN DIM LIGHT.
3. PLACE THE SAMPLES IN THE TUBE AND ADD 6 mL PURE ACETONE.
4. GRIND THE SAMPLES WITH THE GLASS ROD.
5. PLACE THE SAMPLES IN THE DARK AT -20 FOR EXTRACTION.