

(200). *Chlorophyll a* is the primary photosynthetic pigment in most plants. It is a green pigment that absorbs light energy and converts it into chemical energy. The structure of *Chlorophyll a* consists of a central magnesium atom coordinated to four nitrogen atoms in a porphyrin ring, with a long phytol side chain.

(201). *Chlorophyll b* is a secondary photosynthetic pigment that absorbs light energy and transfers it to *Chlorophyll a*. It is a yellow-green pigment that is found in higher plants and green algae. The structure of *Chlorophyll b* is similar to that of *Chlorophyll a*, but it has a different side chain.

(- *Chlorophyll a* is the primary photosynthetic pigment in most plants. It is a green pigment that absorbs light energy and converts it into chemical energy. The structure of *Chlorophyll a* consists of a central magnesium atom coordinated to four nitrogen atoms in a porphyrin ring, with a long phytol side chain.

(201). *Chlorophyll b* is a secondary photosynthetic pigment that absorbs light energy and transfers it to *Chlorophyll a*. It is a yellow-green pigment that is found in higher plants and green algae. The structure of *Chlorophyll b* is similar to that of *Chlorophyll a*, but it has a different side chain.

Chlorophyll a is the primary photosynthetic pigment in most plants. It is a green pigment that absorbs light energy and converts it into chemical energy. The structure of *Chlorophyll a* consists of a central magnesium atom coordinated to four nitrogen atoms in a porphyrin ring, with a long phytol side chain.

Chlorophyll b is a secondary photosynthetic pigment that absorbs light energy and transfers it to *Chlorophyll a*. It is a yellow-green pigment that is found in higher plants and green algae. The structure of *Chlorophyll b* is similar to that of *Chlorophyll a*, but it has a different side chain.

Chlorophyll a is the primary photosynthetic pigment in most plants. It is a green pigment that absorbs light energy and converts it into chemical energy. The structure of *Chlorophyll a* consists of a central magnesium atom coordinated to four nitrogen atoms in a porphyrin ring, with a long phytol side chain.

Chlorophyll b is a secondary photosynthetic pigment that absorbs light energy and transfers it to *Chlorophyll a*. It is a yellow-green pigment that is found in higher plants and green algae. The structure of *Chlorophyll b* is similar to that of *Chlorophyll a*, but it has a different side chain.

Chlorophyll a is the primary photosynthetic pigment in most plants. It is a green pigment that absorbs light energy and converts it into chemical energy. The structure of *Chlorophyll a* consists of a central magnesium atom coordinated to four nitrogen atoms in a porphyrin ring, with a long phytol side chain.

Chlorophyll b is a secondary photosynthetic pigment that absorbs light energy and transfers it to *Chlorophyll a*. It is a yellow-green pigment that is found in higher plants and green algae. The structure of *Chlorophyll b* is similar to that of *Chlorophyll a*, but it has a different side chain.

Chlorophyll a is the primary photosynthetic pigment in most plants. It is a green pigment that absorbs light energy and converts it into chemical energy. The structure of *Chlorophyll a* consists of a central magnesium atom coordinated to four nitrogen atoms in a porphyrin ring, with a long phytol side chain.

Chlorophyll b is a secondary photosynthetic pigment that absorbs light energy and transfers it to *Chlorophyll a*. It is a yellow-green pigment that is found in higher plants and green algae. The structure of *Chlorophyll b* is similar to that of *Chlorophyll a*, but it has a different side chain.

1. 112, 210, 211, 21, 31, 31 2 4
2. 300- 1 4
3. 4, 4, 3, 4 4

1. 112, 210, 211, 21, 31, 31 2 4
2. 300- 1 4
3. 30 4 4, 4

1. 112, 200, 210, 211, 301, 312, 31, 33 32
2. 30 4 310, 31, 31, 323, 32
4
3. 31, 321, 32 43, 3, 3 0
3 4
4. 4, 4, 3, 4 4

1. 112, 200, 210, 211, 301, 312, 31, 33 32
2. 310, 31, 31, 323, 32 4
3. 31, 321, 32 43, 3, 3 0
3 4
4. 30 4 4, 4

1. 112, 211 210 21 12
2. 31, 323, 32, 3 1
3. 30, 30, 310, 31, 31, 320, 321,
32 4 12
4. 300- 3 4
111, 112, 31 4 31, 32 4 32, 31, 32 2
4, 4, 3, 4 4

1. 112, 211 210, 21 12
2. 31, 323, 32, 3 1
3. 30, 30, 310, 31, 31, 320, 321,
32 4 12
4. 300- 3 4
111, 112, 31 4 31, 32 4 32, 31, 32 2
30 4 4, 4

111 2
111
112, 200, 210, 21 112 20
303, 30 4 30, 31, 33, 3 20
4, 4, 3, 4 4
33, 3, 3, 3 0
301, 312, 31, 31, 321, 32 4 33, 3,
3 1 41

1. 112, 211, 21, 33, 3, 3, 3 0 2
2. ()

30 4 31, 321, 3
31, 323, 32
3. 4, 4, 3, 4 4

1. 112, 211, 21, 33, 3, 3, 3 0 2
2. ()
31, 321, 3
31, 323, 32
3. 30 4 4, 4

() 31 (30)
111 112
111 112 11 4 20 ()
10
1. 1 0, 30,
3, 213, / 230.
2. 30, 3 0, 4, 40
3. 44, 41
4 10

112
200- 12
300- 12
2 30, 30, 322.

M E W

112
200- 12
300- 12
2 30, 30, 322.

112
111
3

112.
111.
3

2-
2

221.
2

221. 222.
p

112, 210, 4
3

112, 200, 4

112 111
11 4 20

3

112, 200, 4

112, 210, 4
1, 2-

3

30
30
3

112
3

112, 210, 4
p

3

112, 211, 4

3

112, 210, 31 4
111-112.

3

112, 210
p

3

112, 21, 4
 111 (112)

112, 21, 4

112, 21, 4
 210

20
 2.0

20
 2.0

2.0

(4)

2.0

2.0

2.0

2.0

2.0

A

()

2.0

