

Eighth directed work of biochemistry

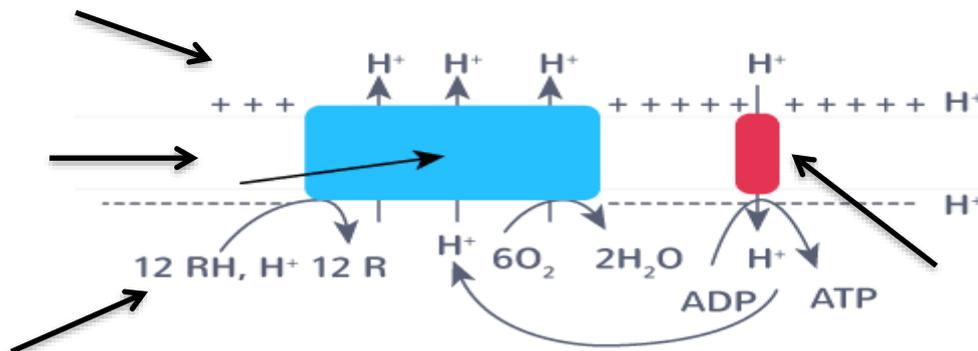
Bioenergetic

Exercise 1. Concerning the respiratory chain and oxidative phosphorylation, which of the following is (are) correct?

- Cytochrome C transports electrons from complex III to complex IV.
- The F1 subunit of ATP synthase is not responsible for phosphorylating ADP into ATP.
- ATP synthetase participates in the reduction of O_2 to H_2O .
- The different complexes of the respiratory chain pump protons from the inter-membrane space of the mitochondria to the matrix.
- The protons return to the matrix through a protein complex called ATP synthase.

Exercise 2.

What do the arrows indicate in the following diagram:



What are the electron transporters in the respiratory chain, specify the role of each.

Exercise 3.

Give the chemical name and structural formula of ATP, then indicate the chemical bonds that connect it and which is the most energetic bond.