



## RESEARCH ARTICLE

# THE NEW THEORY OF THE CLOSED 9-STEP CYCLE OF PROTON CONDUCTANCE AND BIG BANG EVENT

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### ABSTRACT

By us has developed a unique theory that connects the Big Bang event, protons, and the formation of life through own concept known as the "Closed 9-Stepped Cycle of Proton Conductance"

1. In this theory, we attempt to link fundamental processes of the universe's formation to the emergence of life using proton conductance as the central mechanism. Here's a simplified explanation of how such a connection might work based on known concepts in physics, chemistry, and biology:
2. **Big Bang and the Creation of Protons:** • The Big Bang is the event that led to the expansion of the universe. During the first few moments, fundamental particles, including protons, were formed. Protons are essential components of atomic nuclei, particularly hydrogen, which is the simplest and most abundant element in the universe.
3. **Formation of Matter:** • As the universe cooled after the Big Bang, protons, along with electrons, formed hydrogen atoms. These atoms eventually became the building blocks for more complex elements through nuclear fusion in stars. The formation of heavier elements laid the groundwork for complex chemistry, which is essential for life.
4. **Proton Conductance and Energy Transfer:** • In biological systems, protons play a crucial role in energy transfer processes, such as those found in the electron transport chain of cellular respiration. The movement of protons across membranes in mitochondria generates a proton gradient, which drives ATP synthesis – the molecule responsible for energy in living organisms.
5. **Nine-Stepped Cycle of Proton Conductance:** • Ambaga's "Closed 9-Stepped Cycle" likely proposes a specific, structured mechanism by which protons interact in cycles of energy transduction that could lead to life-sustaining processes. The "closed" nature suggests that the cycle operates continuously in a self-sustaining loop, possibly involving various steps where protons move, interact with molecules, and contribute to the complex reactions necessary for the emergence of life.
6. **From Protons to Life:** • The theory seems to bridge astrophysical events (such as the Big Bang and formation of protons) with the biochemical processes that are foundational for life.
7. In essence, we are suggesting that proton conductance cycles, which are key to energy production in cells, have roots in the very early moments of the universe.
8. Life could thus be viewed as an extension of these primordial proton-based processes that started at the beginning of time.
9. **Unified Concept of Life and the Universe:** • By linking the formation of protons in the Big Bang to the biochemical cycles in living organisms, our theory appears to propose a unified view where the fundamental particles of the universe directly influence the emergence of life through specific proton-driven processes. This theory would likely be interdisciplinary, combining elements from cosmology, particle physics, biochemistry, and molecular biology to provide a novel explanation of life's origin. If you're looking for more detailed or specific aspects of his theory, it would require exploring his published work or detailed academic presentations on this topic.

Our theory on the closed 9-step cycle of proton conductance ties back to the Big Bang event, which laid the groundwork for proton and electron formation. According to this model, protons and electrons, essential to life, were created during the Big Bang around 15 billion years ago. These particles played a crucial role in the evolution of cellular processes over time. In particular, this model explains the complex mechanism by which cells produce energy through ATP (adenosine triphosphate) using a three-state line system that has evolved over 3.6 billion years. In such way we are propose the new discovery in the field of Biology and medicine by joining the three new conception as at first : new metabolic equation based on the proton conductance as metabolic medium as "Donators of proton as glucose molecules (first stage of proton conductance) + membrane redox potentials in the three-state line system + O<sub>2</sub> (hemoglobin of the pulmonary capillary -8-th stage, hemoglobin of tissue-87 trillion cell-surrounded capillary-9-th stage) + ADP + Pi + (H<sup>+</sup> + nH + memb.space - proton gradient-4-th stage) = (ATP + heat energy-5-th stage) + H<sub>2</sub>O (5-th stage) + (nH<sup>+</sup><sub>matrix</sub>) + CO<sub>2</sub>(second stage of proton conductance),at second : Closed 9 stepped cycle and at third: System models of the Human bodyand at fourth : membrane redox potentials in the three-state line system. The term "closed cycle" implies that the process is cyclic, returning to its initial state after completing all steps, which is a characteristic of many biological processes to ensure efficient and continuous operation.

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## INTRODUCTION

The new theory of the Cosed 9-step cycle of proton conductance by professor M. Ambaga ties back to the Big Bang event, which laid the

groundwork for proton and electron formation. According to this model, protons and electrons, essential to life, were created during the Big Bang around 15 billion years ago. These particles played a crucial

role in the evolution of cellular processes over time. In particular, this model explains the complex mechanism by which cells produce energy through ATP (adenosine triphosphate) using a three-state line system that has evolved over 3.6 billion years. The closed 9-step cycle of proton conductance is a unique system where protons and electrons are transferred between donors (food substrates) and acceptors (like oxygen in the air). This system is responsible for efficiently generating cellular energy and maintaining life processes. This model helps to explain not only the origins of energy production in cells but also the intricate balance between different energy systems within the body, reflecting both a historical and biological evolution tied to the fundamental forces established by the Big Bang.

Closed 9-stepped cycle, proposed by M.Ambaga emphasizes the critical role of protons and electrons in the biological processes, tracing their origin back to the Big Bang and linking them to the formation of life-membrane redox potentials within cells has evolved over billions of years facilitate the transfer of protons between donors- food substrates and acceptors -oxygen. The discovery of the closed 9-step cycle by us has biological and medical significance, as did the DNA molecular structure revealed by Watson and Krick, because the 9-stage cycle of proton conductance resembled a big electric station, which provided all 87 trillion cells, including brain cells and myocardial cells, with ATP, NADPH, and ATP-based genetic materials such as DNA, RNA, heat energy, CO<sub>2</sub>, oxygen, free protons, and electrons.

## RESULT

The new theory of the Closed 9-step cycle of proton conductance proposed by us ties back to the Big Bang event, which laid the groundwork for proton and electron formation. According to this model, protons and electrons, essential to life, were created during the Big Bang around 15 billion years ago. These particles played a crucial role in the evolution of cellular processes over time. In particular, this model explains the complex mechanism by which cells produce energy through ATP (adenosine triphosphate) using a three-state line system that has evolved over 3.6 billion years. Proposed by us the full nine-step cycle of electron and proton conductance inside the human body demonstrated that:

First stage of proton conductance: oxygen channeling to mitochondria of 87 trillion cells; oxygen channeling: oxygen has been assumed to diffuse across cell bodies; very low oxygen solubility in the cytosol, reported High-solubility 'channels' likely formed by the endoplasmic reticulum by haem-bearing cytochrome P450 molecules; accelerated oxygen diffusion via lipid droplets; lateral diffusion within mitochondrial membranes; mitochondria; release of hydrogen atoms, protons, and electrons from food molecules; Krebs cycle under the influence of the ninth stage as release of oxygen from hemoglobin.

The second stage of proton conductance is carbon dioxide, generated by the Krebs cycle in the mitochondria of 87 trillion cells.

Third stage: the processes conducted with connection to the formation of NADH, FADH, Coenzyme Q, and Cytochrome C oxidase

Fourth stage: the processes conducted with the formation of a proton gradient from protons and the connection of oxygen with electrons.

Fifth stage: the processes conducted with the formation of ATP, heat energy, and metabolic water.

In the sixth stage, PO<sub>2</sub> formed in the mitochondria diffuses into plasma and into red blood cells. The capillary blood of respiratory membranes reacts with metabolic water to form H<sub>2</sub>CO<sub>3</sub> and HCO<sub>3</sub>. From the mitochondria, carbon dioxide diffuses into the plasma and into red blood cells.

Seventh stage: In the red blood cells of the capillary blood of the respiratory membranes, protons dissociate from hemoglobin and bind

with HCO<sub>3</sub> (entered by chloride shift) - uptake of oxygen by hemoglobin. In the red blood cells of capillary blood, CL shift occurred between mitochondria, plasma, and hemoglobin.

Eighth stage of proton conductance: proton release from R-state hemoglobin enhances CO<sub>2</sub> release in the respiratory membranes of the lungs; the dramatic increase in the partial pressure of oxygen drives the binding of oxygen to deoxyhemoglobin; O<sub>2</sub> binding triggers the transition of T-state hemoglobin to R-state hemoglobin. Oxygen diffuses into the plasma and into red blood cells from the alveolus. Oxygen binds to hemoglobin; in the chloride shift, as HCO<sub>3</sub> diffuses into red blood cells, bicarbonate ions and protons combine to replace H<sub>2</sub>CO<sub>3</sub>, carbon dioxide is released from hemoglobin, and hydrogen ions are released from hemoglobin.

Ninth stage of proton conductance: binding of protons to T-state hemoglobin increases CO<sub>2</sub> uptake from respiring tissues. As R-state hemoglobin gives up its bound oxygen to respiring tissues and subsequently transitions to the T-state, it is to drive release of oxygen from hemoglobin to the mitochondria of 87 trillion cells. Carbon dioxide and hydrogen ions combine with hemoglobin, which has released oxygen, to promote the release of oxygen from hemoglobin. Oxygen is released from hemoglobin, which diffuses out of red blood cells and plasma into tissues (the mitochondria).

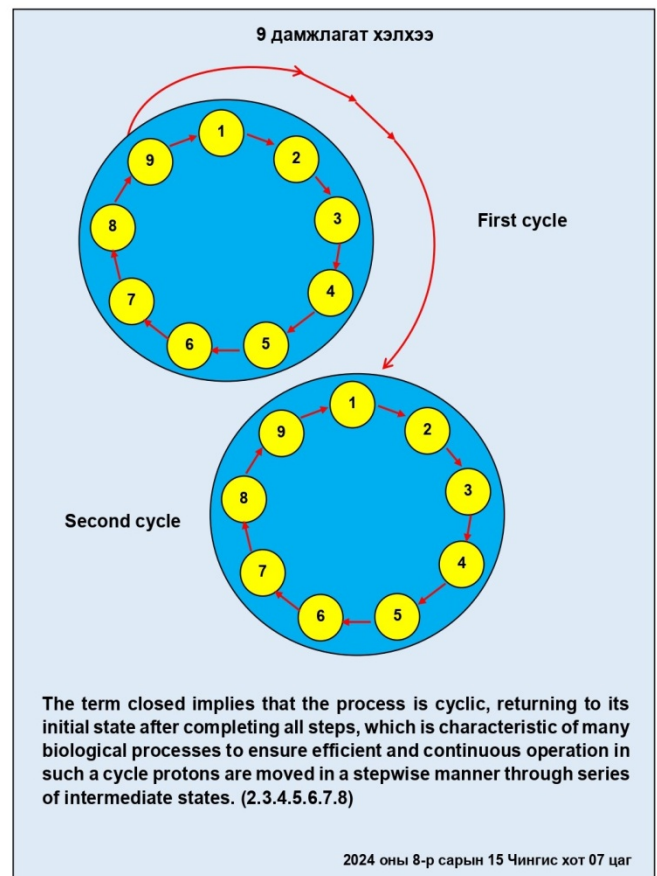
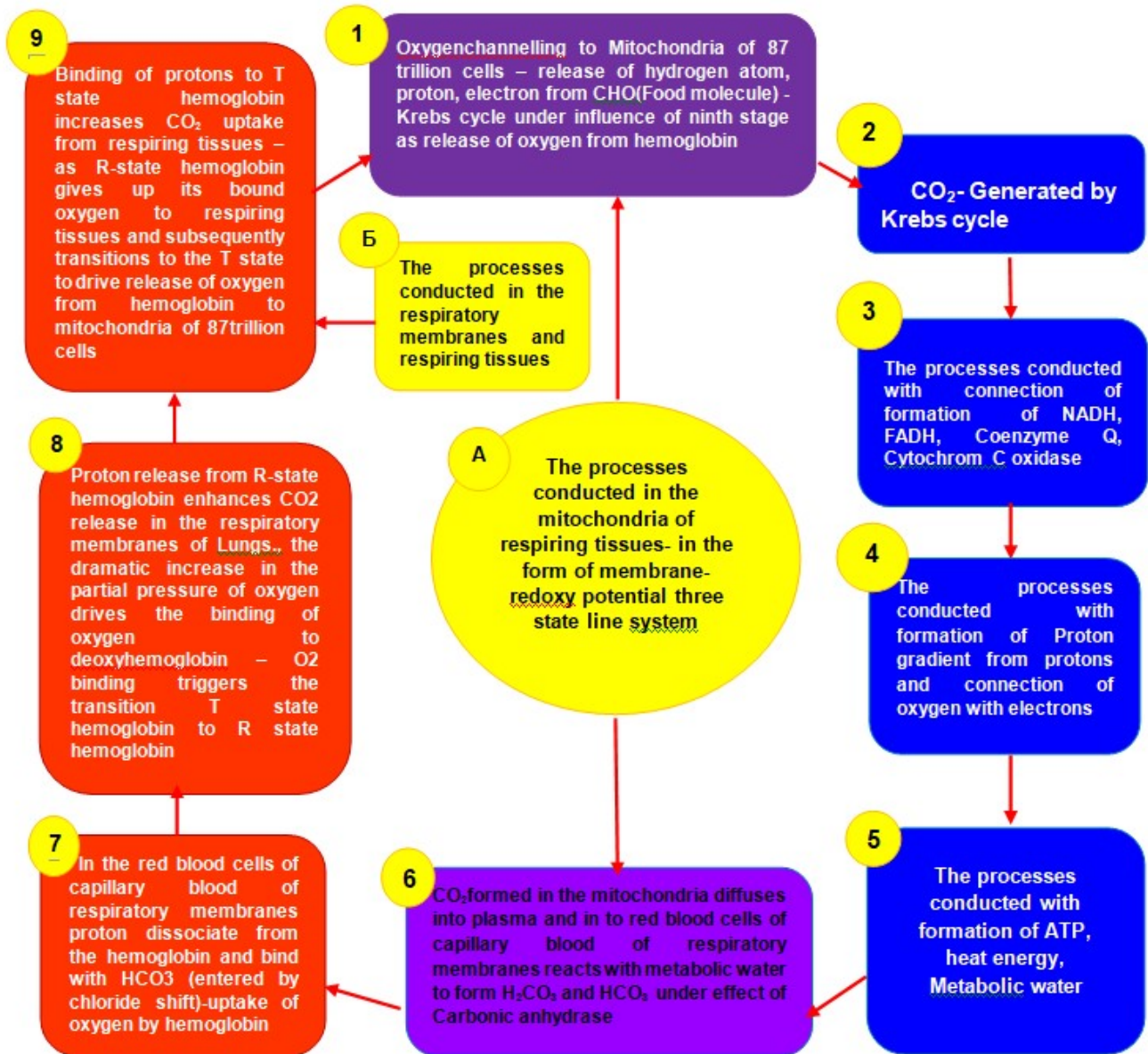


Figure-1: The closed cycle of proton conductance by M.Ambaga, that is process cyclic, returning to its initial state after completing all steps

Closed 9-stepped cycle, proposed by us emphasizes the critical role of protons and electrons in the biological processes, tracing their origin back to the Big Bang and linking them to the formation of life-membrane redox potentials within cells has evolved over billions of years facilitate the transfer of protons between donors- food substrates and acceptors -oxygen. Any Disturbation of the Normal thermodynamic processes, conducted in the Closed 9-stepped cycle of proton conductance lead to pathological change of the exergonic favorable reactions or spontaneous reactions, no needed new inputs from outside, self-sustaining, after completing all 9 stages, the system returns to its original state. The disturbance, happened in the First stage of proton conductance as oxygen channeling to the mitochondria

**Figure-2. The Full Cycle of Proton and Electron Conductance inside the Human Body, Consisting of 9 Linked Stages.**



of 87 trillion cells, oxygen has been assumed to diffuse across cell bodies; very low oxygen solubility in the cytosol, High-solubility 'channels' likely formed by the endoplasmic reticulum by hemoglobin-bearing cytochrome P450 molecules; accelerated oxygen diffusion via lipid droplets; lateral diffusion within mitochondrial membranes; release of hydrogen atoms, protons, and electrons from food molecules; Krebs cycle under the influence of the ninth stage as release of oxygen from hemoglobin. In such way, also disturbance, happened in the second stage of proton conductance as where carbon dioxide, generated by the Krebs cycle in the mitochondria of 87 trillion cells, and third stage, where conducted the formation of NADH, FADH, Coenzyme Q, and Cytochrome C oxidase, the fifth stage, where conducted the formation of ATP, heat energy, and metabolic water may be one of reasons of the pathological change of exergonic favorable reactions or spontaneous reactions, no needed new inputs from outside, self-sustaining, after completing all 9 stages, the system returns to its original state.

## CONCLUSION

By us has developed a unique theory that connects the Big Bang event, protons, and the formation of life through own concept known as the "Closed 9-Stepped Cycle of Proton Conductance" In this theory, we attempt to link fundamental processes of the universe's formation to the emergence of life using proton conductance as the central mechanism. Here's a simplified explanation of how such a connection might work based on known concepts in physics, chemistry, and biology:

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The term "closed cycle" implies that the process is cyclic, returning to its initial state after completing all steps, which is a characteristic of many biological processes to ensure efficient and continuous operation. The definition of System models of the human body has been connected with the beginning of singularity-fundaments of the universe. <https://en.wikipedia.org/wiki/Singularity->

**Initial singularity**, a hypothesized singularity of infinite density before quantum fluctuations caused the Big Bang and subsequent inflation that created the universe, **Penrose-Hawking singularity** theorems: In general relativity theory, there are theorems about how gravitation produces singularities. If you squeeze an object below its Schwarzschild radius, then its own gravity becomes so intense that it just keeps on squeezing all by itself, all the way down to an infinitely tiny point, according to **National Geographic**.

The first parameters were free protons, free electrons, and the first chemical element, hydrogen, consisting of one proton and one electron, which laid the precondition for the synthesis of ATP, NADPH. Why are the phosphoanhydride bonds considered high-energy? All this really means is that an appreciable amount of energy is released when one of these bonds is broken in a hydrolysis (water-mediated breakdown) reaction. ATP is hydrolyzed to ADP in the following reaction:  $ATP + H_2O \rightleftharpoons ADP + P_i + \text{energy}$   $ATP + H_2O \rightleftharpoons ADP + P_i + \text{energy}$ : Like most chemical reactions, the hydrolysis of ATP to ADP is reversible. The reverse reaction, which regenerates ATP from ADP and P<sub>i</sub>, requires energy. Regeneration of ATP is important because cells tend to use up (hydrolyze) ATP molecules very quickly and rely on replacement ATP being constantly produced), the presence of protons from peripheral tissues favors the formation of salt bridges by protonating, all these biological processes had accompanied by creation of System organization of Human body, including the 10 main systems of Human body as proton donators and electron acceptor delivering, the membrane redox potential three state dependent 9 stepped full closed cycle of proton conductance and, four types of cells distinguished by difference of proton conductance (normal flow with normal synthesis of ATP as charged battery, short time stopped, completely stopped- ATP synthesis stopped as dead battery, back flow of protons with in favour to glycolysis, leading to cancer) also the four compartments and five membrane structures based on five function systems, where the normal genetic cell division, information-response reactions, biosynthetic, bioenergetic, and biotransformation functions are conducted by using high-energy phosphate as ATP and high-energy electrons as NADPH.

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