What is the nitrogen cycle and how important is it to life?



Nitrogen is an important non-metallic element with an atomic number of 7 in the periodic table.The element was discovered by Scottish chemist Daniel Rutherford in 1772. It is one of the most abundant elements， making up about 80% of the Earth's atmosphere by volume. This non-metallic gas appears to be colorless， tasteless and odorless. In terms of its abundance in the universe， it is ranked as the seventh most common element in the galaxy and solar system. In terms of its necessity and usefulness， it is vital to life because it is present in all living organisms in the form of amino acids， proteins， DNA and RNA and contains the blueprint for life. This gas accounts for 3% of the body's mass and is the fourth most abundant element in the composition of the human body after oxygen， carbon and hydrogen.

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The importance of nitrogen can be seen in the fact that it is found in compounds of great industrial importance， such as ammonia， nitric acid， nitrides， nitrates， etc. This non-metallic element is also important in the manufacture of all major classes of pharmaceuticals， which are composed of naturally occurring nitrogen-containing molecules. Blood pressure is controlled by metabolizing the organic nitrates nitroglycerin and nitroprusside into nitric acid. As mentioned above， it is essential for life and is ubiquitous around us. In addition to animal life， it plays an important role in the growth and development of plant life. Needless to say， it is as vital to plants as it is to animal life. However， it is important to note that nitrogen must always be used in an appropriate manner. Too much nitrogen will certainly destroy growth， and too little will hinder it. Therefore， a balance must be achieved in the use of nitrogen in plant growth. In addition， excessive use of nitrogen will have a negative impact on the environment.

Nitrogen is found primarily in the atmosphere， from where it enters the soil and all life forms， and returns to the earth's atmosphere. This is what we call the nitrogen cycle. Humans obtain nitrogen by eating other organisms. Therefore， we must understand it in order to achieve a balanced growth of crops without forgetting the degradation of the environment.

What is the importance of nitrogen in our daily life?

It goes without saying that nitrogen is essential for the maintenance of life， both in animals and plants. It provides the necessary components for plant growth and forms an essential part of proteins containing amino acids， DNA and RNA， and is necessary for the growth， reproduction and survival of animal life. Nitrogen is converted into compounds that can be beneficially used by animals and plants through intricate nitrogen cycle processes.

How does nitrogen play an important role in plant life?

Plants need nitrogen for proper growth. It is essential for providing proteins， which are necessary both as structural units and in the form of enzymes. If they do not get enough

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protein， they will begin to die. Nitrogen is an important component of chlorophyll and is essential for photosynthesis， which uses energy from the sun to prepare sugars from water and carbon dioxide. It is also an important component of ATP (adenosine triphosphate), known as an energy transfer compound. However， plants obtain nitrogen in a different way compared to animals. They take up nitrogen in the form of nitrate and ammonium. It has been observed that plants that do not receive enough nitrogen start to turn yellow and stop growing， they produce smaller than average fruits， their growth is stunted and they usually produce small fruits. Some of them eventually die.

Why is nitrogen important in animal life?

It is not necessary to overemphasize that protein is an integral part of life. And nitrogen is needed in the manufacture of all human tissues， whether it is blood skin， teeth， skin， etc. On the other hand， protein is also an enzyme required for numerous metabolic processes in the body. It must be remembered that nitrogen is not available to humans or animals directly from the atmosphere. It is present in protein-rich diets such as chicken， lamb， fish， eggs， shrimp， lentils， beans， etc. If you want to generate pure nitrogen from machinery in industry and food industry， we are a nitrogen generator supplier and nitrogen generator manufacturer in China.

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