Хузиахметова. ИВТм-1-19

Перевод.

ИСКОПАЕМОЕ ТОПЛИВО

Ископаемое топливо или газовое топливо - это топливо, образующееся из природных ресурсов, таких как анаэробное разложение погребенных мертвых организмов. Возраст организмов и полученного ими ископаемого топлива обычно составляет миллионы лет, а иногда и превышает 650 миллионов лет. Эти виды топлива содержат высокий процент углерода и углеводородов.

Ископаемые виды топлива варьируются от летучих материалов с низким содержанием углерода: водорода, таких как метан, до жидкой нефти и нелетучих материалов, состоящих из почти чистого углерода, таких как антрацитовый уголь. Метан может быть найден только в углеводородных месторождениях, связанных с нефтью, или в виде метановых клатратов. Общепризнано, что они образовались из окаменелых останков мертвых растений и животных под воздействием тепла и давления в земной коре в течение сотен миллионов лет. Эта биогенная теория была впервые введена Георгом Агриколой в 1556 году, а затем Михаилом Ломоносовым в 18 веке.

По оценкам Управления энергетической информации, в 2007 году первичные источники энергии состояли из нефти 36,0%, угля 27,4%, природного газа 23,0%, что составляет 86,4% доли ископаемого топлива в потреблении первичной энергии в мире. Неископаемые источники в 2006 году включали гидроэлектростанции 6,3%, ядерные 8,5% и другие (геотермальные, солнечные, приливные, ветровые, древесные, отходы) на сумму 0,9%. Мировое потребление энергии росло примерно на 2,3% в год.

Ископаемые виды топлива являются невозобновляемыми ресурсами, поскольку на их формирование уходят миллионы лет, а запасы истощаются гораздо быстрее, чем формируются новые. Производство и использование ископаемых видов топлива вызывает экологические проблемы. Таким образом, в настоящее время осуществляется глобальное движение в направлении производства возобновляемых источников энергии, чтобы помочь удовлетворить возросшие потребности в энергии.

Сжигание ископаемого топлива производит около 21,3 миллиарда тонн (21,3 гигатонны) углекислого газа в год, но, по оценкам, природные процессы могут поглотить только около половины этого количества, поэтому чистый прирост составляет 10,65 миллиарда тонн атмосферного углекислого газа в год (одна тонна атмосферного углерода эквивалентна 44/12 или 3,7 тонны углекислого газа). Углекислый газ - это одна из хранилищ газов, которые усиливают радиоактивное воздействие и способствуют глобальному потеплению, вызывая в ответ повышение средней температуры поверхности Земли, что, по мнению климатологов, вызовет серьезные неблагоприятные последствия.

. **Answer the following sentences:**

1. What is the other name for fossil fuels? gas fuels

2. What are fossil fuels formed by? by natural resources

3. What do fossil fuels contain? a high percentage of carbon and hydrocarbons

4. What carbon do volatile materials contain? low carbon: hydrogen ratios like methane

5. What carbon do nonvolatile materials contain? almost pure carbon, like anthracite coal

6. What is the percentage of fossil fuel primary source usage? 86.4%

7. What is the percentage of non-fossil fuel primary source usage?

Non-fossil sources in 2006 included hydroelectric 6.3%, nuclear 8.5%, and other (geothermal, solar, tide, wind, wood, waste) amounting 0.9 percent.

8. Are fossil fuels renewable resources? Fossil fuels are non-renewable resources

9. How many tons of carbon dioxide does the burning of fossil fuels produce per year?

The burning of fossil fuels produces around 21.3 billion ton (21.3 gigaton) of carbon dioxide per year

10. How many of this amount can natural processes absorb?

natural processes can only absorb about half of that amount

11. Does carbon dioxide enhance radioactive forcing and contribute to global warming? Yes

4. **Fill in the missed words and word combinations:**

1. Non-fossil sources in 2006 included hydroelectric 6.3%, nuclear 8.5%, and (geothermal, solar, tide, wind, wood, waste) amounting 0.9 percent.

2. A global movement toward the generation of renewable energy is therefore under way to help meet increased energy needs.

3. Carbon dioxide is one of the greenhouse gases that enhances radioactive forcing and contributes to... warming.

4. Fossil fuels are non-renewable resources.

5. Fossil fuels or gas fuels are fuels formed by natural resources.

6. Fossil fuels range from volatile materials with low carbon to nonvolatile materials composed of almost pure carbon.

7. Fossil fuels reserves are being depleted much faster than new ones are being formed.

8. In 2007 primary sources of energy consisted of petroleum 36.0%, coal 27.4%, natural gas 23.0%

9. It causes the average surface temperature of the Earth to rise in response.

10. It is generally accepted that they formed from the fossilized remains of dead plants and animals by exposure to heat and pressure in the Earth's crust over hundreds of millions of years.

11. Methane can be found in hydrocarbon fields.

12. Natural processes can only absorb about half of that amount.

13. The burning of fossil fuels produces around 21.3 billion ton of carbon dioxide per year.

14. The production and use of fossil fuels raise environmental concerns.

15. This biogenic theory was first introduced by Georg Agricola in 1556 and later by Mikhail Lomonosov in the 18th century.

16. World energy consumption was growing about 2.3% per year.

5. **Put the verb into appropriate form:**

to be, to exceed, to contain, to range, to include, to take, to raise, to produce, to enhance, to contribute, to cause

1. Carbon dioxide will cause major adverse effects.

2. Carbon dioxide enhances radioactive forcing.

3. Carbon dioxide contributes to global warming.

4. Fossil fuels take millions of years to form.

5. Fossil fuels are non-renewable resources.

6. Fossil fuels contain a high percentage of carbon and hydrocarbons.

7. Fossil fuels range from volatile materials to nonvolatile materials.

8. Fossil fuels or gas fuels are fuels formed by natural resources.

9. In 2007 primary sources of energy consisted petroleum 36.0%, coal 27.4%, natural gas 23.0%.

10. It causes the average surface temperature of the Earth to rise in response

11. Non-fossil sources in 2006 included hydroelectric 6.3%, nuclear 8.5%, and others (geothermal, solar, tide, wind, wood, waste) amounting 0.9 percent.

12. Sometimes it exceeds 650 million years.

13. The age of the organisms and their resulting fossil fuels is typically millions of years.

14. The burning of fossil fuels produces around 21.3 billion ton of carbon dioxide per year.

15. The production and use of fossil fuels raise environmental concerns.

16. There is a net increase of atmospheric carbon dioxide per year.

**6. Make the following sentences interrogative and negative:**

1. Fossil fuels or gas fuels are fuels formed by natural resources.

Fossil fuels or gas fuels are not fuels formed by natural resources.

Are fossil fuels or gas fuels fuels formed by natural resources?

2. The age of the buried dead organisms and their resulting is typically millions of years.

The age of the buried dead organisms and their resulting is not typically millions of years.

Is the age of the buried dead organisms and their resulting typically millions of years?

3. It sometimes exceeds 650 million years.

It sometimes does`t exceed 650 million years.

Does it sometimes exceed 650 million years?

4. These fuels contain a high percentage of carbon and hydrocarbons.

These fuels don`t contain a high percentage of carbon and hydrocarbons.

Do these fuels contain a high percentage of carbon and hydrocarbons?

5. Fossil fuels range from volatile materials to nonvolatile materials.

 Fossil fuels don`t range from volatile materials to nonvolatile materials.

 Do Fossil fuels range from volatile materials to nonvolatile materials?

6. Nonvolatile materials are composed of almost pure carbon.

​Nonvolatile materials are not composed of almost pure carbon.

​Are Nonvolatile materials composed of almost pure carbon?

7. In 2007 primary sources of energy consisted of petroleum 36.0%, coal 27.4%, and natural gas 23.0%.

​In 2007 primary sources of energy didn`t consist of petroleum 36.0%, coal 27.4%, and natural gas 23.0%.

​Did In 2007 primary sources of energy consist of petroleum 36.0%, coal 27.4%, and natural gas 23.0%?

8. It amounted to an 86.4% share for fossil fuels in primary energy consumption in the world.

​It did not amount to an 86.4% share for fossil fuels in primary energy consumption in the world.

​Did It amount to an 86.4% share for fossil fuels in primary energy consumption in the world?

9. Non-fossil sources in 2006 included hydroelectric 6.3%, nuclear 8.5%, and (geothermal, solar, tide, wind, wood, waste) that amounted 0.9 percent.

​Non-fossil sources in 2006 didn`t include hydroelectric 6.3%, nuclear 8.5%, and (geothermal, solar, tide, wind, wood, waste) that amounted 0.9 percent.

​Did non-fossil sources in 2006 included hydroelectric 6.3%, nuclear 8.5%, and (geothermal, solar, tide, wind, wood, waste) that amounted 0.9 percent?

10. World energy consumption was growing about 2.3% per year.

 World energy consumption wasn`t growing about 2.3% per year.

 Was world energy consumption growing about 2.3% per year?

11. Fossil fuels are non-renewable resources.

Fossil fuels aren`t non-renewable resources.

Are fossil fuels non-renewable resources?

12. They take millions of years to form.

​They don`t take millions of years to form.

​Do they take millions of years to form?

13. Fossil fuels reserves are being depleted much faster than new ones are being formed.

​Fossil fuels reserves aren`t being depleted much faster than new ones are being formed.

​Are fossil fuels reserves being depleted much faster than new ones are being formed?

14. The production and use of fossil fuels raise environmental concerns.

​The production and use of fossil fuels don`t raise environmental concerns.

​Do the production and use of fossil fuels raise environmental concerns?

15. The burning of fossil fuels produces a large amount of carbon dioxide per year.

​The burning of fossil fuels doesn`t produce a large amount of carbon dioxide per year.

​Does the burning of fossil fuels produce a large amount of carbon dioxide per year?

16. Natural processes can only absorb about half of that amount, so there is a net increase of atmospheric carbon dioxide per year.

​Natural processes cann`t only absorb about half of that amount.

​Can natural processes only absorb about half of that amount?

17. Carbon dioxide is one of the greenhouse gases that enhances radioactive forcing and contributes to global warming

​Carbon dioxide isn`t one of the greenhouse gases that enhances radioactive forcing and contributes to global warming

​Is carbon dioxide one of the greenhouse gases that enhances radioactive forcing and contributes to global warming?

18. Carbon dioxide causes the average surface temperature of the Earth to rise in response.

​Carbon dioxide doesn`t cause the average surface temperature of the Earth to rise in response.

​Does carbon dioxide cause the average surface temperature of the Earth to rise in response?

19. That will cause major adverse effects.

​That won`t cause major adverse effects.

​Will that cause major adverse effects?