Hydrocarbons from Earth's Crust

Example: Natural Gas

Definition - Natural Gas is an important source of alkanes of low molar mass. Typically, natural gas is composed of about 80% methane, 10 % ethane, 4 % propane and 2 % butane. The remaining 4 % consists of nitrogen and hydrocarbons of higher molar mss. Natural gas also contains a small amount of the noble gas helium.

Sep 25-9:16 AM

Hydrocarbons from Earth's Crust

Example: Petroleum

Definition - The organic compounds found in petroleum, or crude oil, are more complex than those in natural gas. Most of the hydrocarbons in petroleum are straight chain and branded chain alkanes.

The refining process starts with the distillation of petroleum into fractions according to boiling points.

The amounts of products obtained by fractional distillation are not in proportion to the demand of the market.

Cracking is a controlled process by which hydrocarbons are broken down or rearranged into smaller, more useful molecules.

Sep 25-9:17 AM

Hydrocarbons from Earth's Crust

Example: Coal

Definition - Geologists think that coal had its origin some 300 million years ago when huge tree ferns and mosses grew abundantly in swampy tropical regions. When the plants died, they formed thick layers of decaying vegetation. Layer after layer of soil and rock eventually covered the decaying vegetation which caused a buildup of intense pressure. This pressure, together with heat from Earth's interior, slowly turned the plant remains into coal.

Coal is classified by its hardness and carbon content.

Coal consists largely of condensed aromatic compounds of extremely high molar mass. These compounds have a high proportion of carbon compared with hydrogen.

Sep 25-9:18 AM

Hydrocarbons from Earth's Crust

Example: Coal Formation

Definition Coal is classified by its hardness and carbon content.

The first stage in the formation of coal is an intermediate material known as peat. After a long period of time, peat losses most of its texture and becomes lignite. Continued pressure and heat slowly changes lignite into bituminous coal. In some places where pressure and time has changed bituminous coal into anthracite coal.

Sep 25-9:18 AM

Hydrocarbons from Earth's Crust

Example: Composition of Coal

Definition Coal consists largely of condensed aromatic compounds of extremely high molar masses. These compounds have a high proportion of carbon compared with hydrogen.

Dec 31-6:43 PM

Dec 31-7:07 PM