James G. Speight, in The Refinery of the Future (Second Edition), 2020 1.8 Petrochemicals. A petrochemical is any chemical manufactured from crude oil and natural gas as distinct from fuels and other products (Speight, 2014, 2019a), derived from crude oil and natural gas, and used for a variety of commercial purposes. The definition has been broadened to include the whole range ...


The objective of the Journal of Petroleum Science and Engineering is to bridge the gap between the engineering, the geology and the science of petroleum and natural gas by publishing explicitly written articles intelligible to scientists and engineers working in any field of petroleum engineering,... Read more

The petroleum industry, also known as the oil industry or the oil patch, includes the global processes of exploration, extraction, refining, transporting (often by oil tankers and pipelines), and marketing of petroleum products. The largest volume products of the industry are fuel oil and gasoline (petrol). Petroleum is also the raw material for many chemical products, including ...

1 Akata-Agbada follows the petroleum system naming convention of Magoon and Dow (1994) where the petroleum system source rock is given first followed by the reservoir rock containing the largest volume of hydrocarbons. [2] Reijers and others (1997) report natural gas reserves at 260 TCFG (46.3 BBOE). This is a near 2.5-fold increase that likely reflects the underreporting ...


Petroleum, also known as crude oil and oil, is a naturally occurring, yellowish-black liquid found in geological formations beneath the Earth's surface. It is commonly refined into various types of fuels. Components of petroleum are separated using a technique called fractional distillation, i.e., separation of a liquid mixture into fractions differing in boiling point by means of distillation.
Antifreeze - Ethylene Glycol Volume vs. Temperature Rating - Freeze protecting of cooling systems - temperature rating vs. required amount of antifreeze.

Butane - Thermal Conductivity vs. Temperature and Pressure - Online calculators, figures and tables showing thermal conductivity of liquid and gaseous butane, C\textsubscript{4} H\textsubscript{10}, at varying temperature.


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For natural gases we are also most interested in the Gas Formation Volume Factor, B\textsubscript{g}, and the Gas Viscosity, \(\mu\)\textsubscript{g}, as these properties strongly influence gas storage (and accumulation) and gas flow. For most reservoir engineering calculations, the gas formation volume factor (and Gas Compressibility, c\textsubscript{g}, and Gas Density, \(\rho\)\textsubscript{g}) can be determined from the Real Gas Law, ...

The Oil Formation Volume Factor, B\textsubscript{o}, is comparable to the water formation volume factor. It relates volume of 1.0 STB of crude oil at stock tank conditions, p\textsubscript{ST} and T\textsubscript{ST}, to its volume at reservoir conditions, p\textsubscript{R} and T\textsubscript{R}. A typical plot of B\textsubscript{o} is illustrated in Figure 3.10.

Volume 105, Number 12, December 2021. View This Issue. Impact Factor. 226 Petroleum system for the continuous oil play in the lacustrine Lower Triassic, Junggar Basin, China. 225 Influence of structure on Mississippian paleotopography and distribution of Middle Pennsylvanian sandstone reservoirs on the Cherokee platform.

FIGURE 8-3. U.S. petroleum production and consumption in the last 45 years. [Source: Energy Information Administration.] The impervious rock covering the reservoir rocks is called a cap rock. As shown in Figure 8-4, oil traps consist of hydrocarbon fluids ...


Nov 03, 2015 · Typical components in petroleum reservoir mixtures include the nonhydrocarbons N\textsubscript{2}, CO\textsubscript{2}, and H\textsubscript{2}S and the hydrocarbons C\textsubscript{1} C\textsubscript{2}, C\textsubscript{3} iC\textsubscript{4} nC\textsubscript{4}, iC\textsubscript{5}, nC\textsubscript{5}, C\textsubscript{6}, and C\textsubscript{7}+ (C\textsubscript{7}+, or “heptanes-plus,” includes many hundreds of heavier compounds, such as paraffins, napthenes, and aromatics). Aphaltenes are also found in reservoir oils.

4. Mechanism of Petroleum Hydrocarbon Degradation. The most rapid and complete degradation of the majority of organic pollutants is brought about under aerobic conditions. Figure 2 shows the main principle of aerobic degradation of hydrocarbons. The initial intracellular attack of organic pollutants is an oxidative process and the activation.

Petroleum Engineering ranking by QS. 14th. Worldwide Ranking among universities in number of US patents. 1500+ US registered patents. 10,000. Undergraduate and Graduate Students. 4%. Student