

Buffer solutions (from English buff - to soften blow) are solutions with a certain steady concentration of hydrogen ions; it is a mixture of a weak acid and its salt (for example, CH_3COOH and CH_3COONa) or a weak base and its salt (for example, NH_3 and NH_4Cl). The pH of the buffer solution changes little when small amounts of acid or alkali are added, when diluted or concentrated. Buffer solutions are widely used in various chemical researches, they are of great importance for the processes in living organisms. A large number of buffer solutions are known (acetate-ammonia, phosphate, borate, formate, etc.).

Bulk density is the density of a solid-phase material calculated as a ratio of the mass of the sample to the volume occupied by the sample. At the same time, the volume considers the free space which is available in particles and between particles. Thus, bulk density depends both on porosity of individual particles, and on the density of their packing, which in turn depends on the geometrical form of particles (powder, granules, tablets, etc.).

Butane dehydrogenation is a process of removing hydrogen from butane to produce butenes and, on occasion, butadiene.

Butane vapor-phase isomerization is a process for isomerizing n-butane to isobutene using aluminum chloride catalyst on a granular alumina support and with hydrogen chloride as a promoter.

Butane-butylene fraction (BBP) is a gaseous product of a catalytic cracking process containing normal (unbranched) alkanes and alkenes with 4 carbon atoms.

By-product is a substance that is formed during the processing of raw materials along with the target product, but is not the goal of this production. By-products resulting from the production or enrichment of raw materials, are called co-products (passing products).

C

The calorie equivalent characterizes the energy value of a chemical fuel and represents the ratio of the net calorific value of a given fuel to the calorific value of **conventional fuel (CF)**, taken as 29,260 kJ:

$$\eta_c = Q^n / 29,260$$

C₁, C₂, C₃, C₄, C₅ fractions is a common way of representing fractions containing a preponderance of hydrocarbons having 1, 2, 3, 4, or 5 carbon atoms, respectively, and without reference to hydrocarbon type.

Capital expenditures are the sum of all costs incurred in the construction of a workshop or an enterprise as a whole. They include the cost of purchasing equipment, machinery and equipment (*the active part*) and construction and installation work (*the passive part*). The efficiency of return on capital expenditures depends on the share of their active part and is estimated by the criterion "specific capital expenditures", that is, the cost per unit of output

A car is a common vehicle, the most important factor in the formation of an urbanized territory. The number of cars, especially in megacities, is very large and growing.

Carbene is the pentane- or heptane-insoluble material that is insoluble in benzene or toluene but which is soluble in carbon disulfide (or pyridine); a type of rifle used for hunting bison.

Carboid is the pentane- or heptane-insoluble material that is insoluble in benzene or toluene and which is also insoluble in carbon disulfide (or pyridine).

Carbon residue is the amount of carbonaceous residue remaining after thermal decomposition of petroleum, a petroleum fraction, or a petroleum product in a limited amount of air; also called the coke- or carbon-forming propensity.

Carbonate washing is processing using a mild alkali (e.g., potassium carbonate) process for emission control by the removal of acid gases from gas streams.