

structure in a steady crystal lattice are removed, or are replaced with foreign structures which aren't peculiar to initial substance.

**The thermal converter of the exhaust gases of the car engine** is the thermo-accumulating device for neutralization of the exhaust gases of the engine of the automobile by the method of flameless oxidation.

**Thermal cracking** is a non-catalytic cracking of hydrocarbons. It flows in the absence of a catalyst at high temperature through a free-radical mechanism. The predominant process is the cleavage of the C-C bond at the  $\beta$ -position with respect to the carbon atom having an unpaired electron. This causes high yields of ethylene during thermal cracking.

**Thermal decomposition** is the chemical decomposition of substances at elevated temperatures without the participation of gaseous compounds from the surrounding atmosphere.

**Tinplate** is a sheet of iron covered with a thin layer of tin; used for the manufacture of cans intended for fruit, dairy and canned meat.

**Topped crude** is petroleum that has had volatile constituents removed up to a certain temperature, e.g., 250°C (480°F) topped crude; not always the same as a residuum.

**Topping** is the distillation of crude oil to remove light fractions only; differs from distillation in the manner in which the heat is applied.

**Turbulent flow** is the flow of a liquid or gas, in which particles of matter make the diverse casual chaotic movements in different directions. At the same time the average speed of particles coincides in the direction with the flow velocity.

**Thermal post-combustion** is an exhaust air or exhaust gas cleaning system based on oxidation.

**The tubular reactor** is a flow type reactor in which the catalyst is located inside a metal tube. Heating or cooling of the tubular reactor is carried out from the outside by means of an external coolant (liquid or gas). In the industry, apparatuses consisting of a large number of tubes (multi-tubular reactors) are used. Tubular reactors are commonly used for reactions that occur at high rates and are accompanied by significant heat release.

**Turnover frequency (TOF)** is a number of acts of catalytic transformation on one active center of the catalytic agent for a unit of time. The term is used to refer to the turnover per unit time, as in enzymology. For most relevant industrial applications, the turnover frequency is in the range of  $10^{-2} - 10^2 \text{ s}^{-1}$  (enzymes  $10^3 - 10^7 \text{ s}^{-1}$ ). Turnover number of catalase is maximum i.e.  $4 \cdot 10^7 \text{ s}^{-1}$ . TOF represents the most accurate measure of catalytic activity, it allows us to compare the activity of different catalytic agents. In some cases the number of the active centers is unknown, for example, in heterogeneous photocatalysis. Then we can use the surface frequency of turns, i.e. the number of acts of catalytic transformation per a unit of time on a unit of the surface measured using nitrogen adsorption by the BET method.

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**The Universal Declaration of human rights** is the most important international document adopted by the UN General Assembly on December 10, 1948 and consolidated on a global scale the fundamental principles and norms that determine from the standpoint of genuine humanism and democracy the overall socioeconomic and political status of the individual. It was the development and specification of the UN Charter. For the first time in the history of international relations, it defined the range of basic human rights and freedoms that are subject to universal observance. It consists of a preamble and 30 articles. It proclaims the equality of rights and freedoms of all people without distinction as to race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status in all countries of the world, regardless of their status. It concerns the personal (civil) and political rights to life, liberty, personal freedom of movement throughout the country, exit from and entry into it, freedom of thought, conscience and religion, peaceful assembly and association, to participate in the governance of their country and (articles 3-21). In addition, specific economic, social and